#### EXHIBIT A

# NORTH TEXAS MUNICIPAL WATER DISTRICT ("NTMWD" or "District") SPECIFICATIONS FOR LIQUID EMULSION CATIONIC POLYMER

#### **QUALITY**

Liquid Emulsion Cationic Polymer solution shall be a viscous, clear, white or straw-to-amber-colored liquid, free from visible foreign matter, sediment and turbidity. The polymer shall not have an offensive or deleterious odor and shall not contain mercury in a concentration greater than 1.3 ppt. A product data sheet shall be provided with the bid that states the manufacturing specifications of the proposed polymer. The specifications shall include total percent solids, residual monomer, bulk Brookfield viscosity, and UL viscosity. The liquid emulsion cationic polymer shall be in accordance with the following specifications:

- The polymer shall have a cationic charge density of 30 mole percent (+/ 1.0%), 293.0% minimum and 31.0% maximum.
- The polymer shall have a U.L. viscosity of 4.2 to 5.2 cps.
- The polymer shall have an active polymer solids concentration of 40 percent (+/2.0%) by weight. NOTE: PAYMENT PROCEDURE for active polymer solids delivered below 38.0% and greater than 42.0%.

#### **BID SAMPLE**

A 5-gallon pail of the product bid must be supplied by the apparent low bidder at no cost to the NTMWD within two weeks after the bid opening. Included with the sample must be a current SDS sheet, and a certificate of analysis on the product included with definitive product identification. The required bid sample and associated performance test may be waived by the NTMWD if the apparent low bidder has previously supplied the bid product approved under a prior contract.

#### METHOD OF ANALYSIS

The method of analysis shall be in accordance with AWWA specification B452-14, Section 5, VERIFICATION.

#### PERFORMANCE TEST

The polymer shall be used for coagulation of wastewater plant sludge to aid in thickening before being fed to a belt press. The polymer shall meet the following requirements:

Solids recovery rate, percent dry solids minimum 95

Filter cake consistency, percent dry solids minimum 20

Solids loading, minimum throughput capacity required, pounds dry solids per hour, per Meter.

A.	Digested waste sludge	600
B.	Waste activated sludge plus primary sludge mixture	650

The low bidder will be required by the NTMWD to determine by actual plant(s) trial that the product bid meets all specifications. The trial for polymer acceptance will be conducted at any of the NTMWD wastewater treatment plants by NTMWD plant personnel under normal operating conditions. The trial will be conducted at no cost to the NTMWD. The polymer shall be tested for active polymer solids in accordance with AWWA B452-14. Also, viscosity shall be tested by the Brookfield test to determine if the polymer is capable of being fed by the NTMWD's current equipment. Failure of the manufacturer to meet the polymer performance test criteria will result in the discontinued use of the product. The NTMWD reserves the right in these instance(s) to seek an alternate supplier.

#### STATISTICAL PROCESS CONTROL

A statistical process control information sheet for the last 50 shipments may be requested with the bid proposal. Also, by the 10th of each month during the duration of the bid contract, SPC information will be supplied by the manufacturer on the last 20 shipments upon the request of the NTMWD. The NTMWD reserves the right to check the delivered product and the right to back-charge a vendor if the analysis performed by the NTMWD determines lower quantities of "active polymer" or viscosity than specified. The vendor must retest the subsequent load for viscosity and active polymer. Retesting is to be provided for and at the manufacturer's expense. The owner will not reimburse the manufacturer for the cost associated with retesting.

#### WARRANTY

The bidder shall warrant that all deliveries made under this contract are of good quality and conforms to AWWA Standards. Further, the material furnished shall contain no soluble mineral or organic substances in quantities capable of producing deleterious or injurious effects on the health of those consuming the water, or that would otherwise render unfit for public water supply use the water which has been treated properly with the material. The material shall not cause any abnormal difficulty in the operation of chemical feeders designed for feeding Liquid Emulsion Cationic Polymer.

#### **DELIVERY**

Liquid Emulsion Cationic Polymer shall be delivered in 5-gallon pails or 55-gallon drums as requested by the NTMWD for use with mobile belt press units. All costs for transporting the containers shall be at the expense of the bidder. Packing and shipping of all Liquid Emulsion Cationic Polymers shall conform to all local, state, and federal regulations.

If it is the opinion of the North Texas Municipal Water District that the polymer dosage becomes excessive, the NTMWD reserves the right to test the next lowest bidder and change vendors if excessive use costs are due to the product being supplied. Delivery of the product will be between 8:00 A.M. and 4:00 P.M. on a schedule developed between the vendor and NTMWD.

#### POINT OF DELIVERY

Prices bid for materials must be for deliveries FOB DISTRICT at location(s) specified in bid documents. Title to any shipment shall be held to pass only upon actual delivery and acceptance at the designated delivery point(s).

#### AUTHORITY FOR DELIVERY

Deliveries of the material purchased under the terms of this contract are to be made if, as and when required and ordered by the Systems Manager or designated representative of the NTMWD, and at such intervals as directed by the Systems Manager.

#### REJECTION OF DELIVERIES

The NTMWD may reject and refuse to make payment on any shipment which fails to allow coagulation due to crosslinking or any other manufacturing abnormality. If said product is of an unusable nature, the supplier will be responsible for removal of said polymer from the site and the cleaning of the bulk storage tank(s) to NTMWD's satisfaction. The product must be removed from the tank within three days of notification by the NTMWD. The product will be hauled off site for disposal. If two (2) loads of polymer are received during the calendar year that do not meet these specifications the NTMWD reserves the right to seek an alternate source of Liquid Emulsion Cationic Polymer.

#### **QUALITY CONTROL**

Each tanker truck delivered shall be accompanied by a written certification of analyses (COA) conducted by the manufacturer or independent laboratory. The cost for these analyses shall be included in the bid price of the polymer. Payments will not be processed that are not accompanied by a COA. The results of the analyses shall include:

- Cationic charge density
- Percent concentration of active polymer solids
- Viscosity

Additionally, a copy of this written COA must be submitted with the invoice to the District's Finance Department. Payments will not be processed if certificate of analysis have not been received.

#### PAYMENT PROCEDURE

Payments will only be made for loads accompanied by a certificate of analysis (COA). The District reserves the right to validate and test any load. If the District's analysis deems that the load is not acceptable, the vendor is responsible to provide third party verification to validate that the load meets the District's specs. If the District's analysis determined that a load is not within the percentage of active polymer specified within the contract, the District shall not be responsible for payment of that load.

Payment for a tanker truck will be determined using the delivered "PERCENT ACTIVE POLYMER SOLIDS," and the net weight delivered. Payment will be made if the "PERCENT ACTIVE POLYMER SOLIDS" analyzed by the District, is 38.0 % or greater as listed in the below table. If the "PERCENT ACTIVE POLYMER SOLIDS" are within the range listed in the table, this percentage will be multiplied by the net weight delivered. This will produce the

"POUNDS OF ACTIVE POLYMER SOLIDS" delivered, which will be multiplied by the "UNIT BID PRICE" to determine the payment due for the delivered polymer.

PERCENT ACTIVE POLYMER SOILDS	EQUATION FOR POUNDS OF ACTIVE POLYMER SOLIDS DELIVERED
*Less than 38.0%	(Net Wt.) X 0
<del>38.0%</del>	(Net Wt.) X 38.0%
<del>39.0%</del>	(Net Wt.) X 39.0%
40.0%	(Net Wt.) X 40.0%
<del>41.0%</del>	(Net Wt.) X 41.0%
<del>42.0%</del>	(Net Wt.) X 42.0%
**Greater than 42.0%	(Net Wt.) X 42.0%

No payment shall be made for the entire load if the polymer delivered is determined to **not meet the specifications** eonsist of "PERCENT ACTIVE POLYMER SOLIDS" less than 38.0 %, based on the certificate of analysis provided by the vendor or a certified laboratory analysis performed by the District.

\*\* If the "PERCENT ACTIVE POLYMER SOLIDS" in the polymer delivered are determined to be greater than 42.0 %, based on the District's analysis, the equation to determine the "POUNDS OF ACTIVE POLYMER SOLIDS DELIVERED" shall be (Net Wt.) X 42.0 %. No additional payment shall be made for delivered polymer determined to consist of "PERCENT ACTIVE POLYMER SOLIDS" greater than 42.0 %.

#### SPILLS AND LEAKS

Any and all chemical spills or leaks caused by chemical delivery drivers, delivery trucks/trailers or their associated equipment must be cleaned up immediately at the expense of the chemical vendor. This is to include any and all spills or leaks occurring on NTMWD property. Delivery drivers are not to add water to or attempt to clean up spills or leaks prior to NTMWD personnel assessing the spill/leak. If NTMWD personnel are not readily available, the delivery driver shall immediately notify NTMWD and take reasonable actions to contain/clean up the spill until NTMWD personnel arrive and assess the spill. Any and all spills or leaks that are not remediated by the chemical vendor will be done so by NTMWD and the service of such will be billed to the chemical vendor.

#### PERFORMANCE BOND

Each Seller that is awarded a Liquid Emulsion Cationic Polymer Agreement shall immediately furnish a Performance Bond in an amount at least equal to the projected total contract price (e.g., unit price x estimated quantity) *up to a maximum amount of \$1 million*, as security for the faithful performance of delivery of the product at the awarded unit price and per the terms and conditions of the Agreement. The Performance Bond shall be obtained from a surety or insurance company that is duly licensed and authorized to issue bonds and shall be in the format of the attached Performance Bond form. If the Seller's Payment Bond surety for any Bond furnished by the Seller is declared bankrupt or becomes insolvent or its right to do business is terminated, Seller shall within 10 days thereafter substitute another Bond and Surety, both of which must be acceptable to NTMWD. A performance bond will not be

required when the projected total contract price is less than \$150,000.

### IDENTIFICATION OF BID

All bids shall be conspicuously and plainly marked, "BID ON LIQUID EMULSION <u>CATIONIC POLYMER</u>".

# NORTH TEXAS MUNICIPAL WATER DISTRICT INVITATION FOR BIDS ANNUAL SUPPLY FOR THE ESTIMATED USAGE OF

## LIQUID EMULSION CATIONIC POLYMER

(FOR THE PERIOD JULY 1, 2015 TO JUNE 30, 2016)

Sealed bids will be received until 2:00 P.M., Wednesday, April 8, 2015, at the NTMWD's Administrative Offices, 505 East Brown St, Wylie, Texas 75098. All bids should be F.O.B. the point of delivery in the "Description," below. The chemical quantity bid is an estimated usage based upon an average volume of water/wastewater treated.

Actual quantities to be purchased will be less than or greater than the estimate.

ITEM NO.	QUANTITY	DESCRIPTION	UNIT	TOTAL
1	28,570 lbs. 30,000 lbs.	Sewer System WWTPs Wylie, Texas	/lb.	
		Stewart Creek West WWTP Frisco, Texas	/Іь.	

The undersigned hereby offers to furnish and deliver the articles or services as specified above at the prices and terms stated and in strict accordance with the attached NTMWD General Conditions to Bid, which incorporates its proposed Chemical Supply Agreement and Exhibit A Specifications thereto all of which are made a part of this offer. This offer is not subject to withdrawal for thirty (30) days from date bids are received.

FIRM NAME	TELEPHONE NO	
ADDRESS		
	TITLE	
SIGNATURE		
SUBCONTRACTORS and	SUPPLIERS to BIDDER (if any):	
FIRM NAME	TELEPHONE NO.	
ADDRESS		
FIRM NAME	TELEPHONE NO.	
ADDRESS		
FIRM NAME		