City of Appleton

100 North Appleton Street
Appleton, WI 54911-4799
www.appleton.org

Meeting Agenda

Utilities Committee

Tuesday, April 28, 2015 | **4:30 PM** | **Council Chambers, 6th Floor**

1. Call meeting to order

2. Roll call of membership

3. Approval of minutes from previous meeting

15-577 Approval of the March 24, 2015 Utilities Committee Meeting minutes.

Attachments: March 24, 2015 Utilities Committee Meeting Minutes.pdf

4. Public Hearings/Appearances

5. Action Items

15-647 Postpone the Sanders Street watermain replacement project between Seymour Street and Verbrick Street to coincide with the revised street resurfacing project schedule.

Attachments: Award memo for Units W-15 and X-15.pdf

15-663 Award Contract to Fiberglass Solutions, Inc. for Hypochlorite Fiberglass Reinforced Plastic Tank Conditions Assessment & Repair Work in the amount of $28,673 plus a 5% contingency of $1,434 for a total not to exceed cost of $30,107.

Attachments: Fiberglass Tank Conditions Repair.pdf

15-679 Approval of Engineering Services for Water Plant Softener #3 and #4 Rehabilitation including Field Services to Robert E. Lee and Associates in the amount of $59,800 and a 5% contingency of $2,990 for a project total not to exceed $62,790.

Attachments: Softener Engineering.pdf

6. Information Items

15-626 Confirm the following:
- Elect a Vice-Chair and Secretary
- Designate a "Contact Person" who can answer specific questions about agenda items.
- Meeting date and time

15-578 2015 Water Treatment Facility Generation Test.

Attachments: 2015 WPPI Test and Payment.pdf

15-579 Change Order #1 to PAC Fire Suppression Project contract for flexible connections in the amount of $894 resulting in a decrease to contingency from $26,070 to $25,176.

Attachments: Change Order 1 PAC.pdf

15-580 Change Order #2 to PAC Fire Suppression Project contract for instruments and program alarming capabilities in the amount of $6,720 resulting in a decrease to contingency from $25,176 to $18,456.

Attachments: Change Order 2 PAC.pdf

15-581 Change Order #3 to PAC Fire Suppression Project contract for modifications to the silo bag house resulting in an increase to contingency from $18,456 to $21,156.

Attachments: Change Order 3 PAC.pdf

15-583 Compost Project Update.

Attachments: 2015 April Compost Pilot Status Presentation.pdf

15-624 Joint Hydrant Painting Proposals with various other communities.

15-623 Monthly Reports for January, February, March 2015
- Wastewater Treatment Plant Synopsis and Receiving Station Revenue
- Water Treatment Plant Synopsis
- Water Distribution and Meter Team Monthly Report - March

Attachments: 2015 Q1 AWWTP Synopsis.pdf
2015 Q1 AWTF Synopsis.pdf
Meter Team Reports March.pdf

7. Adjournment

Notice is hereby given that a quorum of the Common Council may be present during this meeting, although no Council action will be taken.

Reasonable Accommodations for Persons with Disabilities will be made upon Request and if Feasible.

For questions on the agenda, contact Chris Shaw at 920-832-5945 or Paula Vandehey at 920-832-6474.

City of Appleton

100 North Appleton Street
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Meeting Minutes
Utilities Committee

Tuesday, March 24, 2015 | **4:30 PM** | **Council Chambers, 6th Floor**

1. Call meeting to order

Chairperson Martin called the Utilities Committee meeting to order at 4:30 p.m.

2. Roll call of membership

Present: 5 - Alderperson Jirschele, Alderperson Martin, Alderperson Dannecker, Alderperson Meltzer and Alderperson Plank

3. Approval of minutes from previous meeting

15-457 Approval of the March 10, 2015 Utilities Committee Meeting minutes.

Alderperson Meltzer moved, seconded by Alderperson Dannecker, that the Minutes be approved. Roll Call. Motion carried by the following vote:

Aye: 5 - Alderperson Jirschele, Alderperson Martin, Alderperson Dannecker, Alderperson Meltzer and Alderperson Plank

4. Public Hearings/Appearances

5. Action Items

15-452 Anticipated Award of Unit F-15, Sanitary and Storm Sewer Cleaning & Televising.

Alderperson Dannecker moved, seconded by Alderperson Plank, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 5 - Alderperson Jirschele, Alderperson Martin, Alderperson Dannecker, Alderperson Meltzer and Alderperson Plank

This item was amended to say "Award of Unit F-15, Sanitary and Storm Sewer Cleaning and Televising to Green Bay Pipe & TV, LLC in an amount not to exceed $247,500."

Alderperson Dannecker moved, seconded by Alderperson Plank, that the Report Action Item be amended. Roll Call. Motion carried by the following vote:

Aye: 5 - Alderperson Jirschele, Alderperson Martin, Alderperson Dannecker, Alderperson Meltzer and Alderperson Plank

15-456 Award purchase of Chlorination/Dechlorination Chemical Feed Equipment to William/Reid LTD, LLC in the amount of $57,700 plus a 5% contingency of $2,885 for a total not to exceed of $60,585.

Alderperson Dannecker moved, seconded by Alderperson Plank, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 5 - Alderperson Jirschele, Alderperson Martin, Alderperson Dannecker, Alderperson Meltzer and Alderperson Plank

6. Information Items

15-454 Approve Change Order #1 to Bar Screen Replacement Project contract for channel draining valves in the amount of $4,737 resulting in a decrease to contingency from $109,638 to $104,901. This item will also be an Information Item at the Finance Committee meeting.

Discussed.

15-455 Approve Change Order #2 to Bar Screen Replacement Project contract for structural improvements and door relocation in the amount of $8,588 resulting in a decrease to contingency from $104,901 to $96,313. This item will also be an Information Item at the Finance Committee meeting.

Discussed.

15-458 Glendale Tower Budget vs Engineer's Estimate of Probable Cost.

Discussed.

15-453 Information stuffer to be included with Utility Bill.

Reviewed.

15-459 Monthly Reports for February
- Water Distribution and Meter Team Monthly Report

Reviewed.

7. Adjournment

Alderperson Dannecker moved, seconded by Alderperson Jirschele, that the Utilities Committee meeting be adjourned at 5:05 p.m. Roll Call. Motion carried by the following vote:

Aye: 5 - Alderperson Jirschele, Alderperson Martin, Alderperson Dannecker, Alderperson Meltzer and Alderperson Plank

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DEPARTMENT OF PUBLIC WORKS - Engineering Division

100 North Appleton Street
Appleton, WI 54911
TEL (920) 832-6474
FAX (920) 832-6489

TO: Members of the Finance Committee and Utilities Committee

FROM: Ross Buetow, Deputy Director of Public Works / City Engineer

SUBJECT: Award of Units W-15 and X-15 Sewer & Water Main Reconstruction Projects

DATE: April 22, 2015

The Engineering Division has opened bids for Units W-15 and X-15, our two large sewer and water main reconstruction projects for 2015. These projects share similar capital construction funding accounts in sanitary sewer (5431), storm sewer (5230), and water main (5371). After reviewing the bid totals for both projects, we will be able to award both contracts as bid, including a 4% contingency on each contract, while still staying within our overall funding allocations for accounts 5230 and 5431. However, in order to allow for the 4% contingency, we could develop a potential negative fund balance of approximately $90,000.00 within water account 5371.

We are anticipating that the project contingencies will not be utilized, therefore avoiding the negative fund balance. However, if the contingency funds are needed, it would be our intent to utilize a small portion of our 2015 funding for AMI water meter replacements to offset these costs.

Therefore, we recommend award of:

Unit W-15 Sewer & Water Reconstruction No. 1 to Van Straten Construction in the amount of $2,496,405.00 with a 4.0% contingency of $100,000.00 for a project total not to exceed $2,596,405.00.

-and –

Unit X-15 Sewer & Water Reconstruction No. 2 to Dorner, Inc. in the amount of $1,841,938.00 with a 4.0% contingency of $73,000.00 for a project total not to exceed $1,914,938.00

As part of these contract awards, we are also requesting permission for the following:

- To postpone the water main replacement on **Sanders Street** between Seymour Street and Verbrick Street. The Engineering Division is planning to move the surface improvements for this street further back in our 5-year plan and would like to re-program the water main work to a later date to coincide with this change. Due to these planned changes, the Sanders Street water main work was not included in the bid packages for either of these projects.
- To retain spending authority for the Sanders Street water main construction ($103,425.00) for use on Projects W-15 and X-15 (the funding and contract award scenario described above is based on this assumption).

Thank you for your consideration.

c: Tony Saucerman, Finance Director
Paula Vandehey, Director of Public Works
H:\Word\Committees\2015\Finance & Utilities Committee Memo - Units W-15 and X-15 Awards.doc

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Department of Utilities
Appleton Water Treatment Facility
2006 E Newberry Street
Appleton, WI 54915
920-832-5945 ph
920-832-5949 fax

TO: Chairperson Joe Martin and Members of the Utilities Committee

CC: Chris Shaw, Utilities Director
Joe Meyers, Water Operations Supervisor

FROM: Chris Stempa, Utilities Deputy Director

DATE: April 22, 2015

RE: ***Award Contract to Fiberglass Solutions Inc. for Hypochlorite Fiberglass Reinforced Plastic Tank Conditions Assessment & Repair Work in the amount of $28,673 plus a 5% contingency of $1,434 for a total not to exceed of $30,107***

BACKGROUND:

Among the chemicals stored at the AWTF for various treatment purposes, sodium hypochlorite is utilized as a cleaning and disinfection chemical. Sodium hypochlorite is housed in three (3) 10,000 gallon fiberglass-reinforced plastic (FRP) bulk sodium hypochlorite storage tanks. The bulk storage tanks were originally manufactured by Raven Industries and installed as part of new construction in 2001. Over the past few years, small leaks have been detected at flange and pipe penetrations. Given the age of the tanks (15 years of service life) and the aggressive nature of chemical it is housing, it was determined that a conditions assessment be performed as soon as reasonably possible on one of the three sodium hypochlorite tanks. The assessment will critically evaluate the structural integrity of the tank to determine if repairs can be made or if tank replacement is necessary.

As part of the conditions assessment the contractor will conduct an internal and external examination of one tank and document flaws and defects in accordance with applicable ASTM standards and industry accepted practices. It should be noted that another project may be developed later in the year in regards to a second hypochlorite tank which is also in need of repairs. The Utilities Department did not include the second tank as part of this Request for Quotation (RFQ) because the project approach could be modified based on the findings and recommendations of the first conditions assessment. As part of the conditions assessment, the contractor will compile the findings of the inspection with supporting photographs in a report or technical memorandum format that includes conclusions, recommendations, and associated budgetary estimates. Subsequent repair work is dependent on the findings and conclusions within the conditions assessment.

Therefore, the costs for those tasks as part of the quotations process were included as "required alternates" but included in the total award amount.

QUOTE PROCESS:

Five qualified firms were selected based upon their ability to provide essential assessment and repair services described in the RFQ. Only two firms provided a complete quote for all requested services. Schedule availability and in-house service capabilities to meet all required alternate scope services described within the RFQ were reasons given by those who did not provide a quotation. A summary of quotations is found below.

Firm	**Total Quote**
Belding Tanks	DNP
ECC Corrosion Inc.	$52,300
Roy Nordenstrom & Son's Inc.	DNP
Fiberglass Solutions	$26,132
Herrick Sales	DNP

DNP: Did not provide a complete quote or was non-responsive.

RECOMMENDATION:

It is recommended that the Utilities Committee award contract to Fiberglass Solutions Inc. for the hypochlorite fiberglass reinforced plastic tank conditions assessment and repair work in the amount of $26,132 plus a 5% contingency of $1,300 for a total not to exceed of $27,432

If you have any questions regarding this project please contact Chris Stempa ph: 832-5945

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Department of Utilities
Water Treatment Facility
2281 Manitowoc Rd.
Menasha, WI 54952
920-997-4200 tel.
920-997-3240 fax

To: Chairperson Greg Dannecker and Members of the Utilities Committee

From: Utilities Director Chris Shaw

cc: Enterprise Accounting Fund Manager Kelli Rindt

Date: April 24, 2015

Re: ***Approval of Engineering Services for Water Plant Softener #3 and #4 Rehabilitation including Field Services to Robert E. Lee and Associates in the amount of $59,800 and a 5% contingency of $2,990 for a project total not to exceed $62,790***

BACKGROUND

The City of Appleton Water Treatment Facility (AWTF) has four water softeners that require extensive maintenance approximately every 12 years to protect steel components from corrosion and to extend the life of the equipment. To date, two softeners have completed these maintenance activities. The Utility has a planned budget to complete the final two softeners by 2016. The 2015 budget for softener painting is $225,000.

Similar to water tower painting, engineering services are necessary to provide project oversight to ensure high quality and a long term coating system. Engineering services for this project include system evaluation, preparation of plans and specifications, contract administration services, and field services. This project will require a National Association of Corrosion Engineers (NACE) or a structural engineer with a Professional Engineering (PE) license who has considerable knowledge of structural steel mechanical equipment and corrosion resistant coating systems.

PROPOSALS

The Appleton Water Plant received four proposals for project engineering services. Robert E. Lee and Associates proposal was deemed the proposal that best matched services required for this project. Robert E. Lee scored high because they had a team of engineers and technicians that routinely performed this type of project work. The team reviewed services provided by McMahon but did not consider their proposal a match for this project work. The following table summarizes the firms quotes.

FIRM	COST	RANK
Robert E Lee & Associates, Inc.	$59,800	1
Strand Associates	$69,680	2
Donohue and Associates	$179,980	3
McMahon	$19,404	4

RECOMMENDATION

Approval of Engineering Services for Water Plant Softener #3 and #4 Rehabilitation including Field Services to Robert E. Lee and Associates in the amount of $59,800 and a 5% contingency of $2,990 for a project total not to exceed $62,790

BUDGET

The 2015 project budget for the Softener Recoating project is $225,000. $225,000 has also been recommended for 2016. The total $450,000 was estimated to provide all necessary funding for both engineering and maintenance purposes. The cost of this recommended contract includes the engineering fees for both softeners in both years.

If you have any questions, regarding the project please contact Chris Shaw at 832-5945.

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Department of Utilities
Appleton Water Treatment Facility
2006 E Newberry Street
Appleton, WI 54915
920-832-5945 ph
920-832-5949 fax

TO: Chairperson Joe Martin and Members of the Utilities Committee

FROM: Chris Stempa, Utilities Deputy Director

DATE: April 3, 2015

RE: ***2015 Water Treatment Facility Generation Test***

The Appleton Water Treatment Facility has completed an annual electrical test for WPPI Energy. The test occurred on March 18, 2015 after the water plant was dispatched by WPPI Energy to provide power under the existing contract for capacity agreement. The water plant successfully provided 3.223 megawatts of power for the two hour test.

Power production data from this test is used in calculating capacity credits and deriving the monthly payments from WPPI Energy over the next 12 months. The payments for capacity are based on two types of credits. The first credit is based on the previous month's peak demand and the annual test capacity results in kilowatts. The second credit is for generated power produced in excess of the previous month demand.

Below is an example of how to apply the most recent generator tested capacity of 3,233 kW to the February 2015 water plant peak usage of 1,032 kW. The WPPI contract formula pays a $3.00 per kW for demand consumed and $1.50 per kW that is generated in excess of the peak demand.

WPPI Fee Variables

Annual Tested Generator Capacity	3,233 kW
February Peak Demand	1,032 kW
Power Produced in Excess of Demand =	2,201 kW

WPPI Fee Constants under Existing Capacity Agreement

Capacity Credit Demand	$3.00/kW
Capacity Credit for Excess Demand	$1.50/kW

Capacity Credit for Demand =	1,032 kW x $3.00/kW = $3,096
Capacity Credit for Excess Demand =	2,201 kW x $1.50/kW = $3,302
Total Monthly Capacity Credit =	$6,398

In the case of the above example a $6,398 total credit is paid to the city for having the electrical generation potential available. The program contract with WPPI Energy has demonstrated annual returns in excess of $80,000.

If you have any questions regarding the test please contact me.

CHANGE ORDER NO. 1

CHANGE ORDER DATE OF ISSUANCE: 3/26/2015

COMMENCEMENT OF CONTRACT TIME: 11/14/2015

OWNER: City of Appleton

CONTRACTOR: Pieper Electric, Inc.

PROJECT: PAC Fire Suppression and Monitoring Project CONTRACT NO.: 23-14

ENGINEER: Donohue & Associates

YOU ARE DIRECTED TO MAKE THE FOLLOWING CHANGES IN THE CONTRACT DOCUMENTS:

DESCRIPTION:

Furnish and install flexible connectors for the two carbon dioxide feed piping connections and the baghouse vent connection.

REASON FOR CHANGE ORDER:

Flexible connectors were required to eliminate interference of the operation of the PAC silo load cells.

ATTACHMENTS:

Proposal from Pieper Electric dated February 15, 2015.

CHANGE IN CONTRACT PRICE
Original Contract Price: $ 173,800
Net increase from previous Change Orders: $ 0.00
Net increase of this Change Order: $ 894.00
Revised Contract Price: $ 174,694.00

CHANGE IN CONTRACT TIMES
Original Contract Times: *(days or dates)* Substantial Completion: 03/1/2015 Ready for Final Payment: 04/01/2015
Net increase (decrease) from previous Change Orders: *(days)* Substantial Completion: 0 Ready for Final Payment: 0
Net increase (decrease) of this Change Order: *(days)* Substantial Completion: 0 Ready for Final Payment: 0
Revised Contract Times: *(days or dates)* Substantial Completion: 03/1/2015 Ready for Final Payment: 04/01/2015

CONTRACTOR agrees that this Change Order includes any and all costs associated with or resulting from the change ordered herein, including all impacts, delays, and accelerated costs. Other than the dollar amount and time allowance listed above, there shall be no other dollar or time compensation as a result of this Change Order.

THIS DOCUMENT SHALL BECOME AN AMENDMENT TO THE CONTRACT AND ALL STIPULATIONS AND COVENANTS OF THE CONTRACT SHALL APPLY HERETO.

RECOMMENDED:	APPROVED:	ACCEPTED:
By: _____ ENGINEER *(signature)*	By: _____ OWNER *(signature)*	By: _____ CONTRACTOR *(signature)*
Date: 3-26-15	Date: 3/27/15	Date: 3/30/15

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CHANGE ORDER SUMMARY

		JOB NAME:	Appleton WTF-PAC
Donohue & Associates		CHANGE ORDER NUMBER:	1
3311 Weeden Creek Road		REVISION NUMER:	REV 1
Sheboygan, WI 53081		DATE:	2/10/2015
		JOB NO:	14168
ATTENTION:	Larry Krause	CONTRACT NO:	12546
		AMOUNT OF C/O:	$894

REGARDING YOUR REQUEST FOR QUOTATION:
Price for adding (2) 1 1/2" & (1) 8" flexible connection for piping at the PAC silo

SUMMARY:	A. LABOR		$81
	B. MATERIALS		$0
	C. DIE		$0
	SBO: YES		
	SUBTOTAL		$81
	OVERHEAD & PROFIT	15.00%	$12
	D. SUBCONTRACTS		$754
	OVERHEAD & PROFIT	5.00%	$38
	SUBTOTAL		$885
	BOND		$9
	INSURANCE		$0
	GRAND TOTAL		$894

ADDITIONAL CALENDAR DAYS EXTENDED TO CONTRACT COMPLETION DATE: 0

THIS AMOUNT ONLY COVERS THE DIRECT COSTS IN LABOR, MATERIALS, SUBCONTRACTS AND EQUIPMENT NECESSARY TO EXECUTE THE CHANGED WORK DESCRIBED IN THE PROPOSAL. AT THE PRESENT TIME, WE CANNOT ASSESS OR EVALUATE THE OVERALL IMPACT OF THE CHANGED WORK ON OUR ORIGINAL CONTRACT SCOPE OF WORK. WE THEREBY RESERVE OUR RIGHTS TO CLAIM FOR ANY INDIRECT COSTS WHICH MAY ARISE IN THE FUTURE AS A RESULT OF DELAYS TO THE WORK, OUT OF SEQUENCE WORK, INEFFICIENCIES, EXTENDED CONTRACT COMPLETION, LABOR AND MATERIAL ESCALATION AND/OR ACCELERATION AND EXTENDED WARRANTIES.

This price is valid for 14 days.

This form was approved:

JOB	NUMBER	NO.	DATE	REVISION
Appleton WTF-PAC	14168	1	10-Feb-15	REV 1

A. LABOR

*SUPER INTENDENT	0 HRS @	$89.70	TOTAL	$0.00
** SUPERVISOR	1 HRS @	$81.34	TOTAL	$81.34
*** SAFETY	0 HRS @	$79.29	TOTAL	$0.00
ELECTRICIAN	0 HRS @	$75.07	TOTAL	$0.00
ESTIMATOR	0 HRS @	$58.62	TOTAL	$0.00
ENGINEER	0 HRS @	$50.00	TOTAL	$0.00
	@		TOTAL	$0.00
	@		TOTAL	$0.00
	@		TOTAL	$0.00
TRAVEL	@		TOTAL	$0.00
SUBSISTENCE	@		TOTAL	$0.00
PREMIUM COSTS			TOTAL	$0.00
			LABOR TOTAL	$81.34

B. MATERIALS

MATERIAL PER "TAKE-OFF"		TOTAL	$0
MISCELLANEOUS MATERIAL & WASTE	3.00%	TOTAL	$0
		SUBTOTAL	*$0*
FREIGHT AND HANDLING		TOTAL	$0
SPECIAL EXPEDITING		TOTAL	$0
SALES TAX	5.6%	TOTAL	$0
		MATERIAL TOTAL	$0

*SUPER INTENDENT - 6% OF TOTAL MAN HOURS

*** SAFETY - 3 % OF TOTAL MAN HOURS

TMA

JOB	ORDER	END	DATE	REVISION
Appleton WTF-PAC	14168	1	10-Feb-15	REV 1

ACTIVITY		QUANTITY	EACH	SUB-TOTAL	LABOR
TRENCH (4"x3' DEEP) DRIVE-DIG & BACKFILL, TEMP PATCH (100' PLUS) Per foot				$0.00	
	LABOR				0.00
TRENCH (4"x3' DEEP) DRIVE-DIG & BACKFILL, TEMP PATCH (LESS THAN 100')				$0.00	
	LABOR				0.00
TRENCH (4"x2' DEEP) GRASS-digging backfill				$0.00	
	LABOR				0.00
BORING-UP TO 100 FEET-LOT PRICE				$0.00	
	LABOR				0.00
BORING-OVER 100 FEET				$0.00	
	LABOR				0.00
FUSING, PER FUSE				$0.00	
	LABOR				0.00
CONCRETE PAD FOR TRANSFORMER-4'X6'-LOT PRICE				$0.00	
	LABOR				0.00
RIGGING				$0.00	
	LABOR				0.00
CORING-1 HOLE LOT PRICE-CONCOR				$0.00	
	LABOR				0.00
POST AUGERING & INSTALLATION				$0.00	
	LABOR				0.00
POLE BASE-24"				$0.00	
	LABOR				0.00
POLE SETTING				$0.00	
	LABOR				0.00
POLE REMOVAL				$0.00	
	LABOR				0.00
POLE BASE REMOVAL				$0.00	
	LABOR				0.00
UNLOAD POLES FROM TRUCK				$0.00	
	LABOR				0.00
SAWCUTTING				$0.00	
	LABOR				0.00
				$0.00	
	LABOR				0.00
CO #1 From JF Ahern		1.00	$754.00	$754.00	
	LABOR				0.00
				$0.00	
	LABOR				0.00
				$0.00	
	LABOR				0.00
				$0.00	
	LABOR				0.00
			TOTALS	$754.00	0.00

CHANGE ORDER NO. 2

CHANGE ORDER DATE OF ISSUANCE: 3/26/2015	COMMENCEMENT OF CONTRACT TIME: 11/14/2015

OWNER: City of Appleton

CONTRACTOR: Pieper Electric, Inc.

PROJECT: PAC Fire Suppression and Monitoring Project CONTRACT NO.: 23-14

ENGINEER: Donohue & Associates

YOU ARE DIRECTED TO MAKE THE FOLLOWING CHANGES IN THE CONTRACT DOCUMENTS:

DESCRIPTION:

Furnish and install new differential pressure transmitter for the PAC silo baghouse, including wiring and conduit required to supply 4-20 mA output, high differential pressure digital alarm, and power.

REASON FOR CHANGE ORDER:

Owner request to install new pressure differential transmitter.

ATTACHMENTS:

Proposal from Pieper Electric dated March 24, 2015 and catalog cut for proposed DP transmitter.

CHANGE IN CONTRACT PRICE
Original Contract Price: $ 173,800
Net increase from previous Change Orders: $ 894.00
Net increase of this Change Order: $ 6,720.00
Revised Contract Price: $ 181,414.00

CHANGE IN CONTRACT TIMES	
Original Contract Times: *(days or dates)*	
Substantial Completion:	03/1/2015
Ready for Final Payment:	04/01/2015
Net increase (decrease) from previous Change Orders: *(days)*	
Substantial Completion:	0
Ready for Final Payment:	0
Net increase (decrease) of this Change Order: *(days)*	
Substantial Completion:	0
Ready for Final Payment:	0
Revised Contract Times: *(days or dates)*	
Substantial Completion:	03/1/2015
Ready for Final Payment:	04/01/2015

CONTRACTOR agrees that this Change Order includes any and all costs associated with or resulting from the change ordered herein, including all impacts, delays, and accelerated costs. Other than the dollar amount and time allowance listed above, there shall be no other dollar or time compensation as a result of this Change Order.

THIS DOCUMENT SHALL BECOME AN AMENDMENT TO THE CONTRACT AND ALL STIPULATIONS AND COVENANTS OF THE CONTRACT SHALL APPLY HERETO.

RECOMMENDED:	APPROVED:	ACCEPTED:
By: _____	By: _____	By: _____
ENGINEER *(signature)*	OWNER *(signature)*	CONTRACTOR *(signature)*
Date: 3-26-15	Date: 3/27/15	Date: 3/30/15

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CHANGE ORDER SUMMARY

	JOB NAME: Appleton WTF PAC
Donohue & Associates	CHANGE ORDER NUMBER: 2
	REVISION NUMER:
	DATE: 3/24/2015
	JOB NO: 14168
ATTENTION: Larry Krause	CONTRACT NO: 4466-16050
	AMOUNT OF C/O: $6,720

REGARDING YOUR REQUEST FOR QUOTATION:
Price for adding new 0-10" WC differential pressure transmitter to PAC Silo baghouse. New flange to be welded to baghouse for installation of DP transmitter. HMI and PLC programming to include DP reading and alarm/warning at HMI in PAC room.

SUMMARY:	A. LABOR		$1,195
	B. MATERIALS		$2,548
	C. DJE		$0
	SBO: YES		
	SUBTOTAL		$3,743
	OVERHEAD & PROFIT	15.00%	$561
	D. SUBCONTRACTS		$2,300
	OVERHEAD & PROFIT	5.00%	$115
	SUBTOTAL		$6,720
	BOND		$0
	INSURANCE		$0
	GRAND TOTAL		$6,720

ADDITIONAL CALENDAR DAYS EXTENDED TO CONTRACT COMPLETION DATE: 0

THIS AMOUNT ONLY COVERS THE DIRECT COSTS IN LABOR, MATERIALS, SUBCONTRACTS AND EQUIPMENT NECESSARY TO EXECUTE THE CHANGED WORK DESCRIBED IN THE PROPOSAL. AT THE PRESENT TIME, WE CANNOT ASSESS OR EVALUATE THE OVERALL IMPACT OF THE CHANGED WORK ON OUR ORIGINAL CONTRACT SCOPE OF WORK. WE THEREBY RESERVE OUR RIGHTS TO CLAIM FOR ANY INDIRECT COSTS WHICH MAY ARISE IN THE FUTURE AS A RESULT OF DELAYS TO THE WORK, OUT OF SEQUENCE WORK, INEFFICIENCIES, EXTENDED CONTRACT COMPLETION, LABOR AND MATERIAL ESCALATION AND/OR ACCELERATION AND EXTENDED WARRANTIES.

This price is valid for 14 days.

This form was approved:

JOB	NUMBER	ESTIMATE NO.	DATE	REVISION
Appleton WTF PAC	14168	2	24-Mar-15	

A. LABOR

*SUPER INTENDENT	1 HRS @	$89.70	TOTAL	$89.70
**SUPERVISOR	2 HRS @	$81.34	TOTAL	$162.68
*** SAFETY	1 HRS @	$79.29	TOTAL	$79.29
ELECTRICIAN	12 HRS @	$71.96	TOTAL	$863.52
ESTIMATOR	0 HRS @	$58.62	TOTAL	$0.00
ENGINEER	0 HRS @	$50.00	TOTAL	$0.00
	@		TOTAL	$0.00
	@		TOTAL	$0.00
	@		TOTAL	$0.00
TRAVEL	@		TOTAL	$0.00
SUBSISTENCE	@		TOTAL	$0.00
PREMIUM COSTS			TOTAL	$0.00
			LABOR TOTAL	$1,195.19

B. MATERIALS

MATERIAL PER "TAKE-OFF"		TOTAL	$2,548
MISCELLANEOUS MATERIAL & WASTE	0.00%	TOTAL	$0
		SUBTOTAL	*$2,548*
FREIGHT AND HANDLING		TOTAL	$0
SPECIAL EXPEDITING		TOTAL	$0
SALES TAX	0.0%	TOTAL	$0
		MATERIAL TOTAL	$2,548

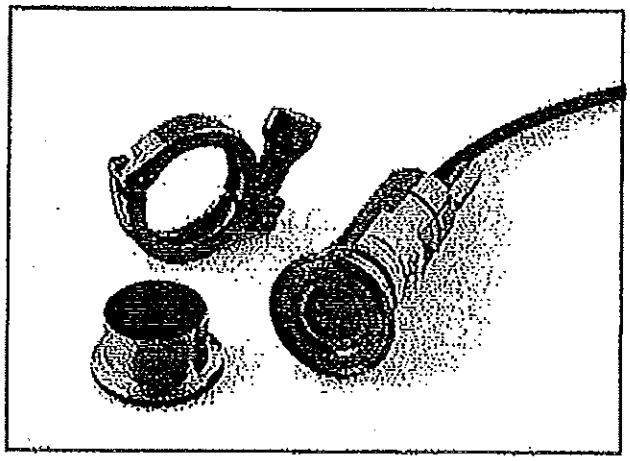
*SUPER INTENDENT - 6% OF TOTAL MAN HOURS
** SUPERVISOR - 12 % OF TOTAL MAN HOURS
*** SAFETY - 3 % OF TOTAL MAN HOURS

JOB	NUMBER	QUOTE	DATE	REVISION
Appleton WTF PAC	14168	2	24-Mar-15	

ACTIVITY		QUANTITY	EACH	SUB-TOTAL	LABOR
TRENCH (4'x3' DEEP) DRIVE-DIG & BACKFILL, TEMP PATCH (100' PLUS) Per foot				$0.00	
	LABOR				0.00
TRENCH (4'x3' DEEP) DRIVE-DIG & BACKFILL, TEMP PATCH (LESS THAN 100')				$0.00	
	LABOR				0.00
TRENCH (4'x2' DEEP) GRASS-digging backfill				$0.00	
	LABOR				0.00
BORING-UP TO 100 FEET-LOT PRICE				$0.00	
	LABOR				0.00
BORING-OVER 100 FEET				$0.00	
	LABOR				0.00
FUSING, PER FUSE				$0.00	
	LABOR				0.00
CONCRETE PAD FOR TRANSFORMER-4'X6'-LOT PRICE				$0.00	
	LABOR				0.00
RIGGING				$0.00	
	LABOR				0.00
CORING-1 HOLE LOT PRICE-CONCOR				$0.00	
	LABOR				0.00
POST AUGERING & INSTALLATION				$0.00	
	LABOR				0.00
POLE BASE-24"				$0.00	
	LABOR				0.00
POLE SETTING				$0.00	
	LABOR				0.00
POLE REMOVAL				$0.00	
	LABOR				0.00
POLE BASE REMOVAL				$0.00	
	LABOR				0.00
UNLOAD POLES FROM TRUCK				$0.00	
	LABOR				0.00
SAWCUTTING				$0.00	
	LABOR				0.00
Quote from Pieper ACO-HMI and PLC programming		1.00	$800.00	$800.00	
	LABOR				0.00
Quote from JF Ahern for welding flange in bag house		1.00	$1,500.00	$1,500.00	
	LABOR				0.00
				$0.00	
	LABOR				0.00
				$0.00	
	LABOR				0.00
				$0.00	
	LABOR				0.00
			TOTALS	$2,300.00	0.00

Made in USA

Non-Clogging Transmitter



The ProPressure DP 20T Non-Clogging transmitter is a heavy-duty, maintenance-free low pressure transmitter designed for fabric filters, cyclones, powder processes and low pressure particulate laden pipes. The unique flush/ported design enables configuration for either differential or static measurement. The ability to transmit accurate measurements below 10" W.C., over a broad temperature range without clogging concerns, makes the DP 20T the ideal replacement for mechanical/helical devices.

For differential measurements the flush diaphragm is mounted to the dirty or wet side of a process, such as the inlet of a dust collector, wet scrubber or mist eliminator. The port is used to route tubing to the cleaner side of the process such as the clean side of a dust collector or mist eliminator. For static measurement, such as in a powder conveying pipe, the port is simply vented to atmosphere.

Standard output is a 4-20mA signal for connection to a PLC, DCS, PC or chart recorder. For local display and relay control, a programmable panel mount LCD gauge is available (consult factory). The DP 20T can also be wired directly to FilterSense's dust emissions, filter leak detectors or mist monitors for local display and relay control integrated with particulate or mist monitoring.

Principle of Operation

The DP 20T uses a state-of-the-art micro machined sensing element with temperature compensation packaged in a heavy-duty stainless steel body. Changes in process pressure or vacuum applied to the diaphragm cause deflection in the sensing element. A precise, linear 4-20mA output signal proportional to the pressure or vacuum is produced by the circuitry.

- Solid-State micro machined sensing element
- Temperature compensated, operate at temps to 450F
- Accurate and repeatable 4-20mA output signal
- Heavy duty body prevents errors from mounting stress

Applications and Benefits

- Ideal for baghouses, cartridge filters & cyclones
  - *Replace photomechanical/helical devices that clog*
  - *Record differential pressure to meet EPA Regulations*
  - *Ensure reliable "pressure activated" filter cleaning*
  - *Integrate with ProFLOW dust emission monitors to optimize filter cake & maximize filtration efficiency*
- Wet/Wet design for scrubbers & mist eliminators
- Static measurement for powder & solids flow pipes
- Intrinsically-safe version for hazardous locations
- 3A Sanitary rating for food & pharmaceutical industries

Specs

Configuration and Ranges

Configurations:	Differential Wet/Wet Static Wet/Wet
Ranges:	0 - 10" WC standard other optional
Action:	Positive at diaphragm Negative at diaphragm Bi-directional, optional
Proof Pressure:	50" WC for 0-10" WC range Higher consult factory

Process Compatibility and Temperature

Sanitary Rating:	3-A #37-01, optional
Process Media:	Wet/Wet design is compatible with most gases and fluids
Temperature:	-20 to 250F, standard -20 to 450F, optional

Accuracy and Performance

Total Error, Diaphragm at 200F: <1.5% FS
Total Error, Diaphragm at 250F: <3.0% FS
Based on zeroing at ambient. Zeroing at temperature reduces error.
Response Time: 500 microseconds
Resolution: Infinite
Orientation Sensitivity: 0.03 psi/G

Electrical

Supply Voltage:	+13 to 32VDC
Connection:	1/2 NPT exit with 5' cable
Load Impedance:	950 ohm at 32VDC
Output:	4-20mA
Intrinsic safety:	Consult factory
Explosion-proof:	Consult factory

Mechanical

Diaphragm:	Polished 316L SS, other opt
Case Material:	304L SS, other optional
Fill Material:	NEOBEE M-20
Housing:	NEMA 4X equivalent
Mount:	Tri-clamp flange
Port Connection:	7/16-20 UNF
Weight:	16 oz.

Installation Kit

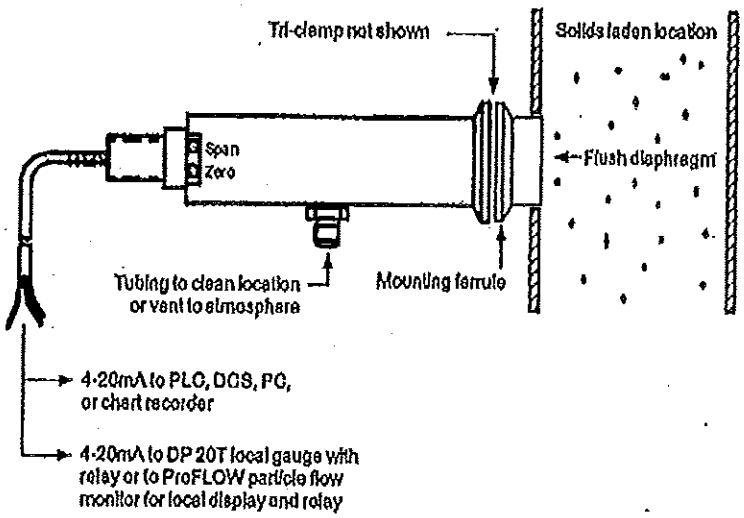
Includes:	Mounting ferrule Tri-clamp & gasket Differential port connectors 10' Differential port tubing

Specifications Subject To Change

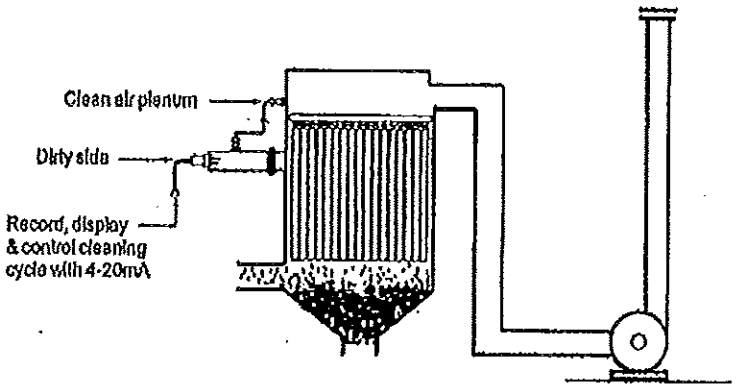
Pressure For Particulate Pipes & Filters

Overview

General



Dust Collector Application



FilterSense

www.babbitlevel.com
Tel: (713)467-4436 Fax: (713)467-8797

CHANGE ORDER NO. 3

CHANGE ORDER DATE OF ISSUANCE 3/26/2015	COMMENCEMENT OF CONTRACT TIME 11/14/2015

OWNER City of Appleton

CONTRACTOR Pieper Electric, Inc.

PROJECT PAC Fire Suppression and Monitoring Project CONTRACT NO. 23-14

ENGINEER Donohue & Associates

YOU ARE DIRECTED TO MAKE THE FOLLOWING CHANGES IN THE CONTRACT DOCUMENTS:

DESCRIPTION:

The contract documents defined a $7,500 allowance for baghouse modifications. The actual cost for the modifications was $4,800.

REASON FOR CHANGE ORDER:

This change order credits the Owner with the remaining $2,700.

ATTACHMENTS:

CHANGE IN CONTRACT PRICE
Original Contract Price:
$ 173,800
Net increase from previous Change Orders:
$ 7,614.00
Net decrease of this Change Order:
$ 2,700.00
Revised Contract Price:
$ 178,714.00

CHANGE IN CONTRACT TIMES	
Original Contract Times: *(days or dates)*	
Substantial Completion:	03/1/2015
Ready for Final Payment:	04/01/2015
Net increase (decrease) from previous Change Orders: *(days)*	
Substantial Completion:	0
Ready for Final Payment:	0
Net increase (decrease) of this Change Order: *(days)*	
Substantial Completion:	0
Ready for Final Payment:	0
Revised Contract Times: *(days or dates)*	
Substantial Completion:	03/1/2015
Ready for Final Payment:	04/01/2015

CONTRACTOR agrees that this Change Order includes any and all costs associated with or resulting from the change ordered herein, including all impacts, delays, and accelerated costs. Other than the dollar amount and time allowance listed above, there shall be no other dollar or time compensation as a result of this Change Order.

THIS DOCUMENT SHALL BECOME AN AMENDMENT TO THE CONTRACT AND ALL STIPULATIONS AND COVENANTS OF THE CONTRACT SHALL APPLY HERETO.

RECOMMENDED:	APPROVED:	ACCEPTED:
By: _____ ENGINEER *(signature)*	By: _____ OWNER *(signature)*	By: _____ CONTRACTOR *(signature)*
Date: 3-26-15	Date: 3/27/15	Date: 3/30/15

CITY OF APPLETON – OUTAGAMIE COUNTY COMPOST PILOT

Status Update

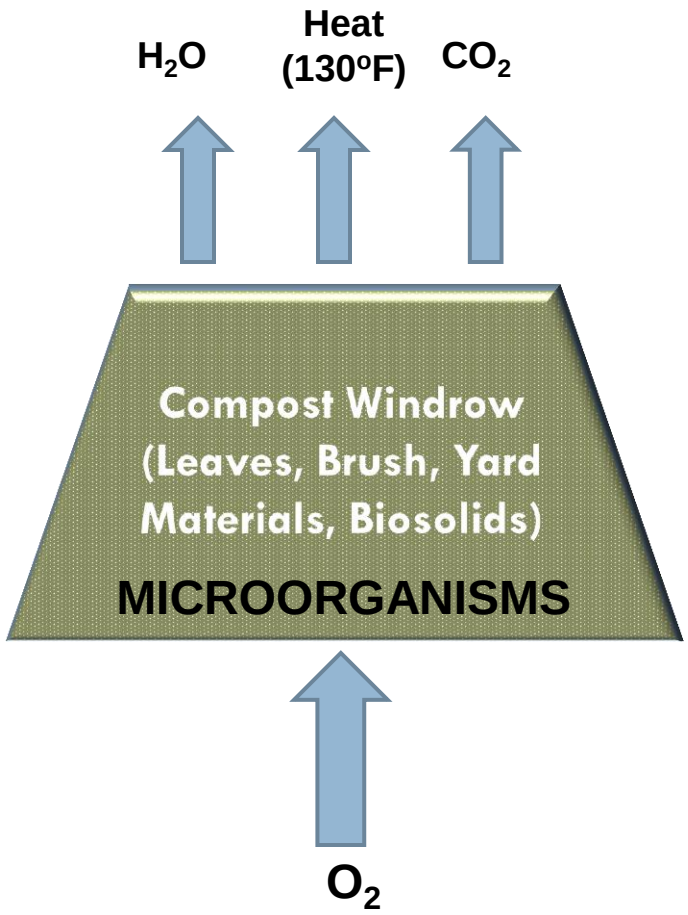
Appleton Utilities Committee

April 2015

Presentation Summary

- What is Composting
- Why We Are Composting
- What Has Been Accomplished
- Lessons Learned
- Current Status
- Future Planning

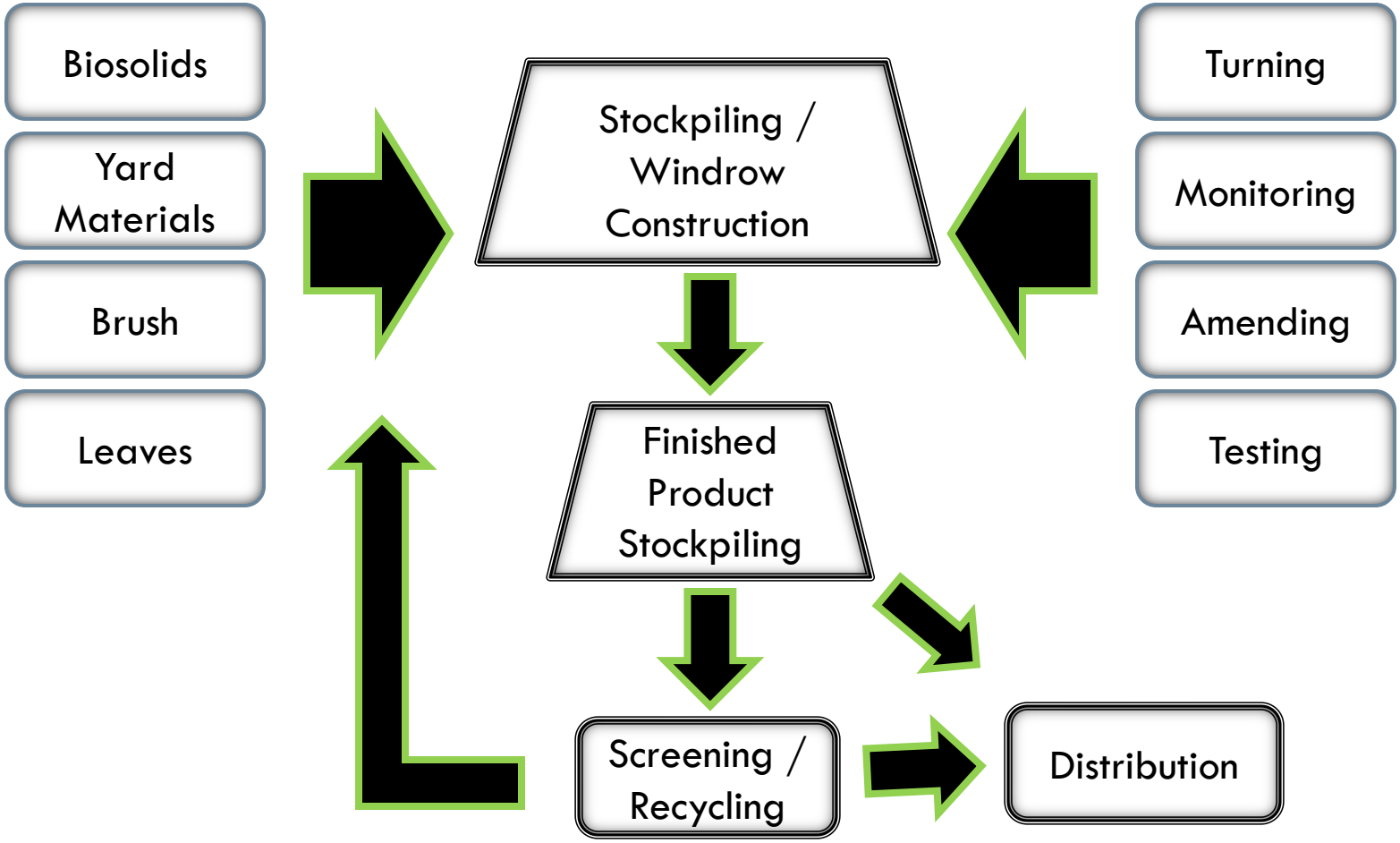
What is Composting?



Microbiological stabilization of organic material and further pathogen destruction resulting in..

..a uniform mixture of humified organic material, mineral matter and microorganisms, with reduced mass and moisture content

Windrow Processing Overview



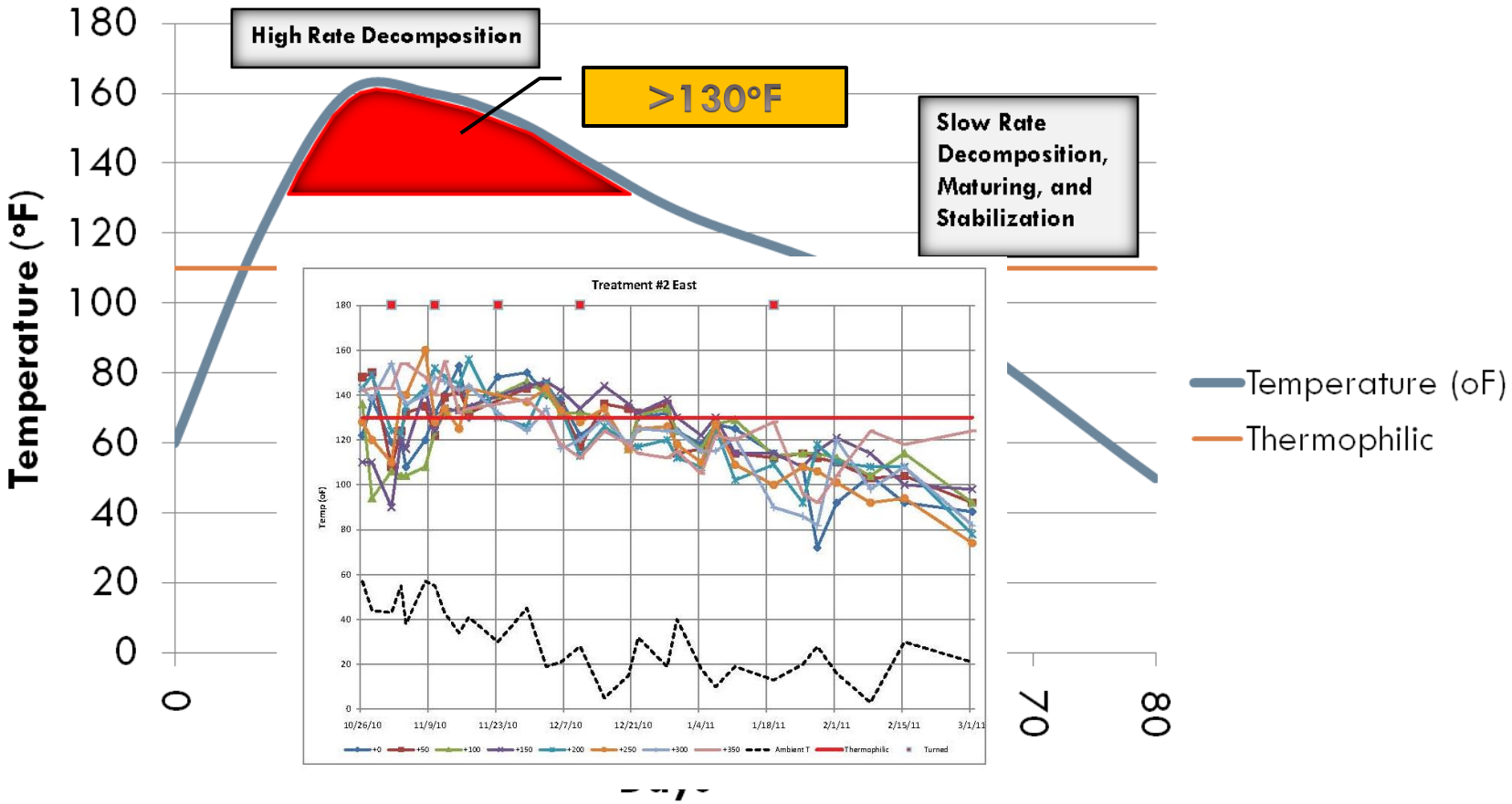
Composting Factors

- Biosolids and Amendment Characteristics
  - % Moisture, Carbon:Nitrogen, Particle Size/Structure, Porosity, Biodegradability, Energy Content (Volatile Solids from Carbon)
- Initial Mix Ratios
- Aeration Rates or Turning Intervals
- Detention Time

Biosolids Composting Requirements

- Biosolids regulated under Wisconsin Administrative Codes NR 204.
  - Windrow composting to generate a Class A biosolids must do the following:
    - Maintain >130°F for 15 days.
    - Minimum of 5 turnings required.
    - Fecal coliform <1,000 MPN/g TS

Compost Temperature Cycle

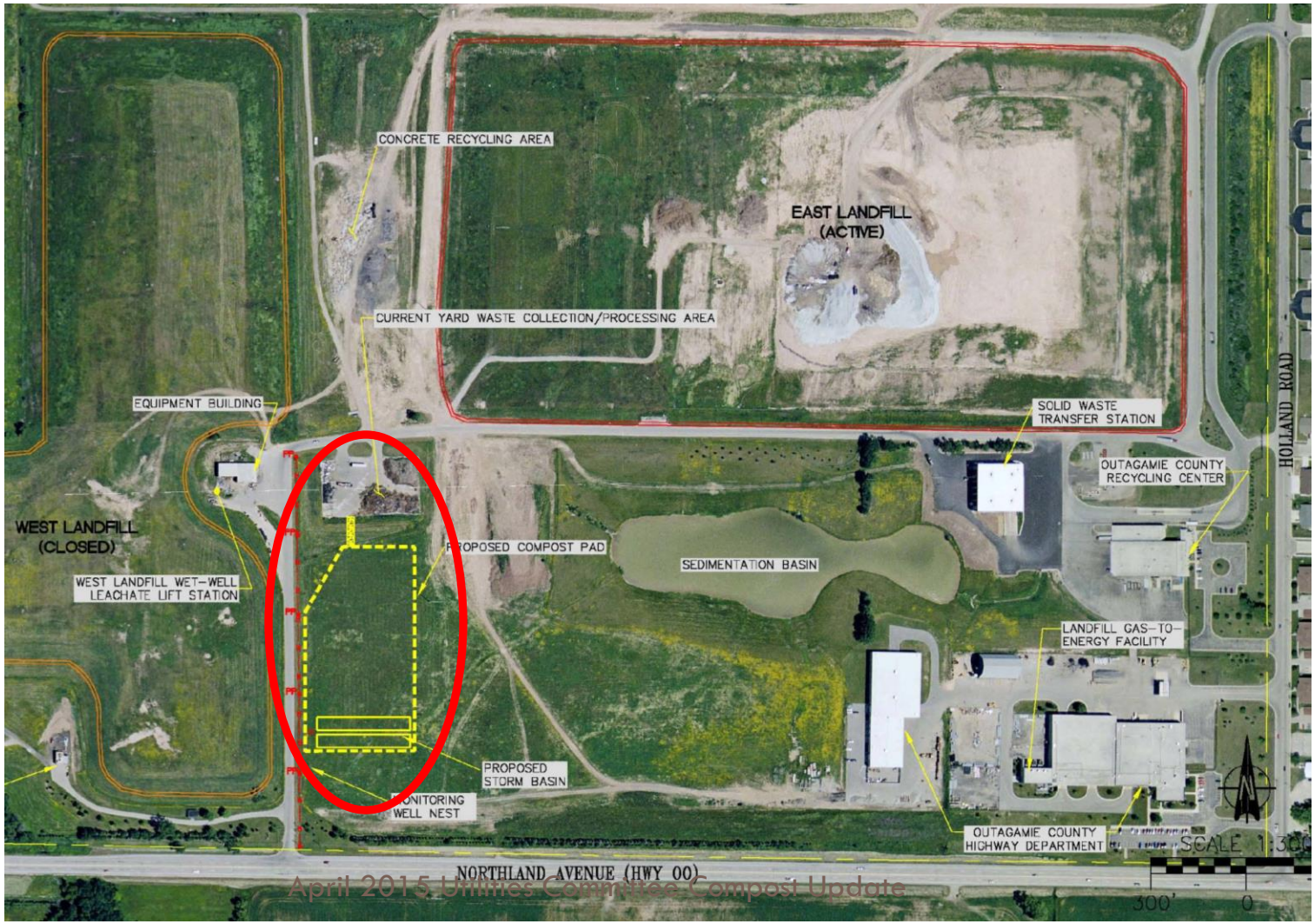


Biosolids Compost "Advisory Group"

- The City of Appleton Wastewater Treatment Plant (AWWTP)
- Appleton Department of Public Works (ADPW)
- Outagamie County Department of Solid Waste (OCDSW)

Mission: "Seek long-term, cost-effective, and environmentally sound alternatives for management of organic waste streams."

Compost Pilot Location



Why Are We Doing It?

- DNR mandated 180-day sludge storage requirement.
  - The AWWTP has historically not met this NR 204 requirement.
- Increasing and more stringent regulations.
  - Land based phosphorus standards.
  - TMDL
- Competing land uses.
  - Urban and rural sprawl
  - Expanding large dairy operations (CAFOs)
- Diversify options for environmentally responsible beneficial use.

Why Are We Doing It?

- Other options exist for the AWWTP:
  1. Agricultural land application
     - Upside: Cost effective when land is close and available.
     - Downside: Weather conditions, various regulations, and farming practices dictate when and how much; unpredictable; contract costs for transportation, land application, and tillage closely associated with fuel costs (i.e. fuel surcharges).
  2. Landfilling
     - Upside: Reliable.
     - Downside: Limited quantities accepted, costly tipping fees, contract costs for transportation closely associated with fuel costs (i.e. fuel surcharges).

Compost Uses

- Agriculture
- Commercial Landscapers
- Municipal - Parks, Engineering
- Sports Turf
- Restoration/Reclamation
- Soil Blenders/Conditioners
- Retail, Specialty Blenders (Lawn & Garden)


OCTOBER
NOVEMBER
DECEMBER
JANUARY

2010-2011

- Trial #1 and Trial #2 completed (approx 6,500 yds each).
- "Best mix and best method" established
- All treatments tested for STA parameters; considered high quality "finished".
- Greenhouse study verified weed seed destruction and positive impact on plant growth.
- Registered with the US Compost Council.
- Compost distribution plan approved by DNR.

2012-2013

- Optimum Compost Blend Identified thus Transitioned from "Trial" Processing
- Economic Feasibility Report Completed
- UW Oshkosh Research Study
- Facility Operations and Marketing Audit
- Completed Various Demonstration Projects
- Extended Intergovernmental MOU with County(2013-2016)
- Staff Transition 2013

2014-2015

- Approximately 30,000 CY Composted Since 2010
- "New" Outagamie County Department of Solid Waste Director
- Resume Compost Processing in Spring 2015
- WPDES Permit Expires September 30, 2015. New Permit will include Compost Operation (**1st Biosolids Compost Facility in Wisconsin!**)
- Actively Engage Potential Large Scale Compost Users: Landscapers, Contractors, & Highway Dept

Lessons Learned

People Matter

- Outagamie County Partner – MOU
- Compost Contractor
- UC and Common Council Support

Too Big Too Small

- Resource Prioritization
- Product Storage/Availability
- Program Costs

Defining Program Costs

Land Application	Contractor Cost ($/WT)
Biosolids Land Application <40 Miles	$13
Biosolids Land Application >40 Miles	$18

Composting	Contractor Cost ($/WT)
Compost Turning, Biosolids Hauling, Brush, Pad Maintenance and Biosolids	$30

Landfilling	Contractor Cost ($/WT)
Disposal and Transportation to the Outagamie County Landfill	$45

Future Planning: 2015-2020

- WPDES Permitting/MOU with OC
- Develop Larger Volume Users
- Develop Product Accessibility
- Program and Capital Planning
- Appropriations (Windrow Turner, Staff, etc.)

Questions and Discussion

Appleton Wastewater Treatment Plant
Synopsis
January 2015 - March 2015

Wastewater Treatment Program

- The Appleton Wastewater Treatment Plant (AWWTP) final effluent met all Wisconsin Department of Natural Resources (WDNR) discharge monitoring reporting limits including carbonaceous biochemical oxygen demand (CBOD), total suspended solids (TSS), pH, phosphorous, and ammonia. (See Table 1). The plant maintained good treatment and a healthy microbiological population with a sludge retention time of nine days. Dewatering processes functioned well and converted 12.70 Million Gallons (MG) of primary digested sludge to biosolids.

Table 1 – Wastewater Influent / Effluent Treatment Data

Characteristic	January 2015			February 2015			March 2015		
AWWTP Flows (MG)	Influent		Percent	Influent		Percent	Influent		Percent
Industrial Flow	50.2	16.7%		45.4	18.8%		48.9		16.4%
Domestic Flow	249.7	83.3%		195.9	81.2%		248.9		83.6%
Total Flow	299.9			241.3			297.8		
Pollutant Loadings (lbs)	Influent	Effluent	Removal	Influent	Effluent	Removal	Influent	Effluent	Removal
CBOD	951,586	13,216	98.6%	861,069	6,929	99.2%	958,781	10,286	98.9%
TSS	1,378,745	12,395	99.1%	1,444,063	7,208	99.5%	2,034,024	8,440	99.6%
Phosphorous	18,557	870	95.3%	18,268	523	97.1%	20,179	450	97.8%
Ammonia	90,247	13,283	85.3%	57,762	1,793	96.9%	64,865	2,616	96.0%

Work Completed:

- 26,315 gallons of spent sulfuric acid (i.e. ferrous sulfate) was used for phosphorus removal during the reporting period. The chemical cost savings for using ferrous sulfate was approximately $18,950. As part of the Phosphorous Treatment Optimization study, 11,625 gallons of ferric chloride was purchased and fed at a cost $8,370 in an effort to evaluate chemical removal strategies.

- Monthly effluent ammonia removal averaged 92.7% through the three month period. The plant average effluent concentration for the three month period was 2.39 mg/L. This is in compliance with the ammonia limit for the time period.

Work in Progress:

- **Fine Screen Replacement Project:** Work started after the first of the year. Bar Screen #1 was removed, concrete modifications were made, and the new #1 Screen was installed and operable before the end of March. It is anticipated that the project will be completed in early May.

- **Everett Street Lift Station Improvements Project:** Construction of a new lift station wet well started in early February. Delays associated with the new lift station equipment submittal process are anticipated to push out project Final Completion from the end of May to July.

- **AWWTP Evaluation of Phosphorus Treatment Optimization and TMDL Compliance Project:** Efforts continued with Iron Salts products (Ferrous Sulfate and Ferric Chloride) dosing demonstrations conducted by engineers from CH2M Hill & McMahon. Engineers and plant staff will continue to evaluate the chemical feed rates and dosing point options to develop plant optimization alternatives.

- **Anaerobic Digester Maintenance & Improvements Project:** This project builds from the recommended maintenance and optimization goals focused on the digester gas mixing operation that were established from a 2010-2012 digester maintenance project. McMahon as the contracted engineer developed a gas purging and piping cleaning procedure for the inspection phase of this project in late 2014. McMahon continues to refine this plan and anticipates work to begin sometime in May. McMahon is working concurrently on the preliminary design of the anaerobic digester gas mix system improvements. Project bidding document development will occur once the preliminary design has been completed and approved.

- **AWWTP Removable Retaining Wall / Column Storage Project:** This project is intended to improve safety and efficiency with the storage of removable sludge building retaining wall components (concrete planks and steel columns). Applied Technologies completed bidding documents and specifications in early January. The project was awarded to Oudenhoven Construction, Inc. in February. Start of construction is scheduled for June 1st.

Regulatory Summary

- Monthly Discharge Monitoring reports for January, February and March were filed electronically on time for regulatory compliance. The 2015 1st quarter short form was also submitted.

Laboratory Program

- Program objectives for regulatory and process sampling and analysis were met including results for the Discharge Monitoring Report (DMR) and Health Department pool testing program.

- Lab personnel completed the analysis of Double Blind Proficiency samples for laboratory recertification.

- Lab staff will be conducting compliance monitoring sampling and pretreatment monitoring sampling to comply with 2015 requirements. They will also aid operations staff in preparing for chlorine residual testing during the upcoming disinfection season.

- Lab and operations staff successfully completed sample collection events for Whole Effluent Toxicity testing. Staff is also involved in pretreatment monitoring and WPDES permit renewal sampling and testing.

Staffing

- A vacancy at the Water Treatment Facility was filled by a WWTP operations employee, and that vacancy was filled through an internal posting. AWWTP staff is working with HR staff to fill the resultant opening.

Appleton Wastewater Treatment Plant
Synopsis
January 2015 - March 2015

EFFLUENT QUALITY SUMMARY

January 2014 – March 2015

Effluent Parameter:	*CBOD mg/L*	*TSS mg/L*	*Total Phosphorus mg/L*	*Ammonia-Nitrogen mg/L*	*Chlorine Residual mg/L*	*Fecal Coliform Colonies/ 100 ml*	*pH s.u.*
WPDES LIMITS:	*25 mg/L monthly avg.*	*30 mg/L monthly avg.*	*1 mg/L monthly avg.*	*10 mg/L monthly avg.*	*0.037 mg/L daily limit*	*400 col/100ml geom. mean*	*6.0 - 9.0 daily limit*
2014							
January	8	5	0.63	20.08	NA	NA	7.5/7.6
February	5	5	0.58	9.56	NA	NA	7.1/7.4
March	4	3	0.34	2.21	NA	NA	6.9/7.1
April	2	1	0.1	0.68	NA	NA	7.3/7.5
May	4	1	0.11	0.63	<0.01	17	7.1/7.4
June	3	2	0.29	0.42	<0.01	27	7.2/7.6
July	3	1	0.43	0.14	<0.01	11	7.4/7.6
August	4	4	0.39	0.4	<0.01	64	7.2/7.4
September	3	1	0.37	0.33	<0.01	14	7.2/7.5
October	3	4	0.38	1.09	NA	NA	7.3/7.5
November	4	5	0.29	0.46	NA	NA	7.2/7.3
December	4	4	0.18	1.41	NA	NA	7.1/7.2
2015							
January	5	5	0.35	5.25	NA	NA	7.0/7.2
February	3	4	0.25	0.90	NA	NA	7.2/7.3
March	4	3	0.18	1.02	NA	NA	7.1/7.3

YEAR 2015 RECEIVING STATION REVENUE

Hauler	January	February	March	April	May	June	July	August	September	October	November	December	Y-T-D Total
A & B Leist Trucking	$ 39,566.92	$ 35,959.36	$ 84,277.27										$ 159,803.55
CSR & Sons	$ -	$ -	$ -										$ -
Den-Bec Inc.	$ -	$ -	$ -										$ -
Hickory Meadows	$ 12,606.17	$ 5,873.47	$ 8,714.07										$ 27,193.71
Jeff Waldvogel Trkg.	$ 16,277.78	$ 14,065.92	$ 18,248.87										$ 48,592.57
KA Services	$ -	$ -	$ 651.22										$ 651.22
Sanimax	$ -	$ -	$ -										$ -
Schwind Trucking	$ -	$ -	$ -										$ -
Van's Septic Service	$ -	$ -	$ -										$ -
Veolia	$ -	$ -	$ -										$ -
Waldvogel Trucking	$ 6,027.05	$ 3,846.88	$ 3,211.82										$ 13,085.75
2015 Total	$ 74,477.92	$ 59,745.63	$ 115,103.25	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 249,326.80
2014 Total	$39,222.94	$36,155.91	$86,496.48	$130,373.91	$135,577.78	$109,839.25	$50,360.66	$82,183.42	$95,241.58	$100,825.24	$79,914.06	$ 104,059.73	$ 1,050,250.96

* Tier Rate Structure increase effective July 1, 2015.

Date: April 16, 2015
Copies: K. Rindt (via email)
C. Shaw (via email)
B. Kreski
Utilities Committee

Appleton Water Treatment Plant
Operations Synopsis
January, February, March 2015

Summary

The following table summarizes selected water production and quality performance metrics for the current and previous reporting periods. All compliance parameters met or exceeded regulatory requirements. During the quarter, average water production increased slightly by about 1.2% consistent with reduced winter demand. Average raw water turbidity remained low due to Lake Winnebago ice cover. CT ratios were lower as expected due to lower raw water temperatures and interim limited CT basin operations due to RUPIP.

WATER PLANT PARAMETERS	Previous (Q4 2014)			Current (Q1 2015)		
	October	November	December	January	February	March
Water Treated						
Finished (million gallons)	251	246	249	258	234	262
Finished (million gallons / day)	8.1	8.2	8.0	8.3	8.4	8.4
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	516.8	513.2	544.9	549.8	496.8	553.6
MWH / million gallons produced	2.06	2.08	2.19	2.13	2.12	2.12
Turbidity						
Lake (NTU)	24.4	28.1	5.5	2.5	2.1	4.6
Finished (NTU)	0.03	0.04	0.03	0.02	0.02	0.03
Finished (<0.15 NTU standard)	100%	100%	100%	100%	100%	100%
Water System Microbial Quality						
Total Coliform Samples	81	81	81	81	81	81
Compliance with Standard	100%	100%	100%	100%	100%	100%
Disinfectant Contact Time						
Minimum CT Ratio Required	1.0	1.0	1.0	1.0	1.0	1.0
Minimum CT Ratio Achieved	2.30	1.29	1.28	1.49	1.47	1.00
Hardness						
Lake Total / Calcium (mg/L)	180/96	193/95	195/103	199/111	205/103	220/119
Finished Total / Calcium (mg/L)	94/13	106/26	109/28	111/27	110/29	108/32
Finished Water Quality						
Total Chlorine (mg/L)	1.93	2.16	2.14	2.22	2.21	2.18
pH	8.4/9.0	8.3/9.2	8.4/8.8	8.6/8.9	8.6/8.9	8.8/9.1
Water Temperature (Degrees F)	54.7	38.7	34.2	33.6	34.2	37.2
Fluoride (mg/L)	0.79	0.78	0.78	0.78	0.72	0.64
Orthophosphate (mg/L)	0.70	0.64	0.73	0.84	0.64	0.66

Laboratory

- In support of plant operations, staff conducted analyses according to method protocols for pH, turbidity, alkalinity, hardness, free/total chlorine, ammonia, phosphorus, and fluoride.
- In support of distribution operations, staff performed required 81 monthly Coliform bacteria analyses along with heterotrophic plate count (HPC) testing.
- Staff completed another round of Disinfection Byproducts Rule 2 (DBPR2) sampling and provided technical support to wholesale water customers sampling activities.
- Staff continued Unregulated Contaminant Monitoring – Round 3 sampling.
- The Technical Services Manager continued development of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2) monitoring plan. Monitoring will commence in the fourth quarter of 2015 and continue monthly for 2 years.

Safety

WTF Safety programs were maintained by completing scheduled safety meetings and all inspections. There were no significant incidents to report.

Operations

- Maintenance staff completed adjustment of Contactor Waste valves to reduce recycle stream volumes (and associated electrical energy and chemicals) by approximately 15%.
- The first quarter membrane cartridge warranty claim was submitted for 136 cartridges for delivery in the second quarter. Per the warranty agreement, future claims will be honored using a 5-year pro-ration method based date of installation.
- The annual stand-by generator capacity testing was successfully completed in March.

Water Plant Projects

RUPIP: The Regulatory Upgrade and Process Improvement Project made the following major progress during the quarter:

- The High Density Lime Systems (3 & 4) were modified by the supplier to include modified mixer impellers and density meter auto-flushing equipment and software at no addition expense to the project. Systems 1 & 2 will be installed in the second quarter.
- The Filter-to-Waste Pumps and Polymer Filter Aid Pumps were functionally tested.
- The UV reactors were prepared by supplier personnel for performance testing to be conducted in the second quarter.
- The Aqua Ammonia system construction and testing was completed. This system is now fully operational and in active use.
- SCADA system control software associated with completed unit process systems was successfully tested.

PAC Fire Suppression: Construction activities have been completed and the system has been commissioned. The installation of a bag house differential pressure transmitter is pending.

Distribution System Projects

Glendale Water Tower: Review of 90% plans and specifications was completed. Construction is expected to be complete in 2016.

Lindbergh Mixer: The Gridbee mixer has been purchased and will be installed in the second quarter.

#3 PRV: The PRV station has been fully tested and is available for service. It will likely be used in second quarter to support the 5-year cleaning and inspection of the Ridgeway and North Towers.

Staffing & Training

- Water Plant Operator Tim Hillsberg retired during the quarter. His position was filled by Relief Operator John George. Stephanie Lee transferred from the Wastewater Utility to fill John George's position. All Water Treatment Facility vacancies have been filled.
- A second Utilities Safety Day was held in January for those staff unable to participate in November 2014.
- Several staff members attended annual City safety training, CPR/First Aid training, and water utility professional training in February and March. Training sessions were conducted to familiarize staff with the operations of #3 PRV and the PAC Fire Suppression System.

WATER SUMMARY FOR MARCH 2015

Work done by Construction Maintenance				
	Mar 14	Mar 15	YTD 14	YTD 15
Hydrants repaired	3	8	22	16
Hydrants replaced	0	3	0	4
Hydrant leaks	0	1	0	1
Valves replaced	0	0	2	0
Valves tested & inspected	0	0	0	0
Valves Rebuilt	3	1	6	3
Valve boxes repaired	0	26	0	31
Curb boxes repaired	0	25	0	47
Curb boxes replaced	0	8	26	20
Lead or galvanized replaced	0	0	0	0
New services 1"	0	0	0	0
New services >1"	0	0	0	1
Water main breaks	28	9	71	38
Joint leaks repaired	0	0	1	1
Water quality	0	1	1	1
Service leaks (City side)	0	0	1	0
Work done by Meter Service Team				
	Mar 14	Mar 15	YTD 14	YTD 15
New accounts set with 3/4" or 1"	2	15	6	24
New accounts set with larger meter	1	1	2	1
Meters tested	71	710	238	1675
Meters failed	0	0	0	0
Meters stalled	2	0	2	0
Service calls	175	160	431	366
Final readings	274	303	731	724
Read meters - no reading	51	0	126	0
New meters installed	0	653	0	1653
Exception meters inspected	0	0	0	0
Exception meters removed	0	0	1	0
Service leaks found	0	0	5	0
Cross connection inspections	0	636	0	1536

WATER MAIN BREAK/JOINT LEAK REPORT MARCH 2015

LOCATION	Work Order	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	ESTIMATED DOLLAR VALUE OF WATER REVENUE LOSS**
1220 E. Taft Avenue	189072	CIP	8"	1959	1/16" crack	6 hours	91,200	$554.76
603 E. Goodall Street	189238	CIP	6"	1937	1/16" crack	6 hours	68,400	$416.07
100 Blk E. McKinley Street	189466	CIP	6"	1913	4" hole	6 hours	540,000	$3,284.76
2013 E. Lucille Street	189572	CIP	6"	1954	4" hole	6 hours	540,000	$3,284.76
1635 W. Homestead Drive	189691	DIP	8"	1978	.1" hole	71 days	681,600	$4,146.10
1000 E. Windfield Place	189763	DIP	8"	1977	.1" hole	75 days	720,000	$4,379.68
417 N. White Oak Drive	189765	CIP	8"	1964	1/16" crack	6 hours	91,200	$554.76
1507 S. Jackson Street	189764	CIP	12"	1949	1/16" crack	6 hours	136,800	$832.14
Beechwood Court/Pershing Street	192656	CIP	8"	1968	1/16" crack	1 day	364,800	$2,219.04

**Water loss is calculated at the residential rate of $4.55 per 100 cubic feet.

WATER MAIN BREAK/JOINT LEAK DATA LOG MARCH 2015

Leak Location	Arterial, Collector, Freeway, Local	Type of Street Concrete/Asphalt	Major Break Minor Break	Catch Basin Draining Yes/No	Date/Time	Comments
1220 E. Taft Avenue	Arterial	Concrete	Major	Yes 95' away	3/1/2015 2:00 p.m. Sunday	Fixed right away. There was a lot of water and it was close to a school.
603 E. Goodall Street	Local	Asphalt	Major	Yes 60' away	3/3/2015 9:00 a.m. Tuesday	Fixed right away during normal work hours.
100 Blk E. McKinley Street	Local	Asphalt	Major	Yes 30' away	3/5/2015 12:30 p.m. Thursday	Fixed right away. It was causing damage.
2013 E. Lucille Street	Local	Concrete	Major	Yes 150' away	3/9/2015 12:00 a.m. Monday	Fixed right away. There was a lot of water.
1635 W. Homestead Drive	Local	Concrete	Minor	No	3/12/2015 7:00 a.m. Thursday	Frost heave that was leaking for a long time. Fixed during normal work hours.
1000 E. Windfield Place	Local	Concrete	Minor	No	3/13/2015 7:00 a.m. Friday	Frost heave that was leaking for a long time. Fixed during normal work hours.

WATER MAIN BREAK/JOINT LEAK DATA LOG MARCH 2015

Leak Location	Arterial, Collector, Freeway, Local	Type of Street Concrete/Asphalt	Major Break Minor Break	Catch Basin Draining Yes/No	Date/Time	Comments
417 N. White Oak Drive	Local	Concrete	Major	Yes 200' away	3/15/2015 9:00 a.m. Sunday	Fixed right away. A lot of water.
1507 S. Jackson Street	Local	Asphalt	Major	Yes 300' away	3/16/2015 8:00 a.m. Monday	Fixed right away during normal work hours.
Beechwood Court/ Pershing Street	Local	Concrete	Minor	Yes 300' away	3/30/2015 10:00 a.m. Monday	Fixed right away during normal work hours. Water was running down the curb line. Resident saw it running the day ealier but waited to call.