



Agenda Commentary

Item Title/ Subject: Clarifier Rehab

Staff Source: Public Works Director, Stephen Jones

Date: June 13, 2013

History/Background Information: The two original clarifiers that were built 1976 have only been sand blasted and recoated twice in 37 years of service. The clarifiers should have been coated every five years, but due to the lack of maintenance the steel had deteriorated to the point that it had to be replaced which was bid out earlier this year. The original bids were to sand blast and coat the new steel that we are replacing.

Subject Summary: We have found a different coating that will last 15 years, the clarifiers need to be sand blasted and recoated every 5 years. The typical labor cost is \$70,000.00 per clarifier to disassemble, sand blast, and repaint. By using this coating there is savings by only having to do one application over fifteen years instead of three.

Recommendation: Option 3 in attached spreadsheet.

Price/Cost: Application per clarifier is \$39,999.70; bulk unit of Belzona 5811 is \$37,700.00. Total cost is \$77,699.00.

Clinton Waste Water Treatment Plant Clarifier Rehab

Current Rehab Plan (Standard Painting)

Original bid amount for replacement, sand blast, and repaint		\$ 188,300.00
Option 1- Cost to sandblast and repaint clarifiers every 5 years		<u>\$ 70,000.00</u>
Maintenance cost over 15 years		<u>\$ 210,000.00</u>
Estimated cost over 15 years per clarifier	option 1	<u>\$ 398,300.00</u>

Belzona Coating instead of Paint

Original bid amount for replacement, sand blast, and repaint		\$ 188,300.00
Less original bid labor + materials for painting \$10,949.00		<u>\$ 177,351.00</u>
Option 2- Cost per clarifier to coat steel with Belzona 5811 epoxy coating with 15 year warranty via contactor (they purchase the Belzona material)		<u>\$ 80,400.00</u>
15 year warranty (no maintenance cost)		
Estimated cost over 15 years per clarifier	option 2	<u>\$ 257,751.00</u>

Original bid amount for replacement, sand blast, and repaint		\$ 188,300.00
Less original bid labor + materials for painting \$10,949.00		<u>\$ 177,351.00</u>
Option 3- Cost per clarifier to coat steel in Belzona 5811 epoxy coating via contactor (City purchases Belzona material in bulk unit) (roughly 10000ft² of coverage/clarifier)		<u>\$ 39,999.70</u>
City's cost for a bulk unit of Belzona 5811 (coverage = 32000 ft ²)	Total cost	\$ 37,700.00
	cost/clarifier	<u>\$ 18,850.00</u>
15 year warranty (no maintenance cost)		
Estimated cost over 15 years per clarifier	option 3	<u>\$ 236,200.70</u>

Option 3 requires the city purchase the bulk unit of Belzona 5811 at a cost of \$37,750.00. In the cost comparison the cost is split in half because the bulk unit will coat both clarifiers.

15 Year Savings

	Savings per clarifier	Total savings
Option 2 instead of option 1	\$ 140,549.00	\$ 281,098.00
Option 3 instead of option 1	\$ 162,099.30	\$ 324,198.60
Option 3 VS. Option 2	\$ 21,550.30	\$ 43,100.60