## Errata to District Cooling Guide (2013)

## **January 5, 2016**

Shaded items have been added since the previously published errata sheet dated June 15, 2015.

Page 2.17: The last line of the next-to-last paragraph reads "...of \$1,509,460 and saves close to..." but should read "...by \$1,509,460 and saves close to...."

## Page 3.13: Include the following table:

Table 3.3 Summary Table of Chiller Characteristics

Chiller Type	Typical Efficiency	Size Range (ton)	Equipment Cost (\$/ton)	Maintenance Cost <sup>*</sup> (Estimated Annual Maintenance Costs
Electric Centrifugal (Standard Single Compressor)	0.61-0.7 kW/ton (COP 4.7 to 5.4)	500 to +1500	200 to 275	\$3,700
Electric Centrifugal (Standard Dual Compressor)	0.61-0.7 kW/ton (COP 4.7 to 5.4)	1500 to +4,000	250 to 350	\$4,400–\$5,000
Electric Centrifugal (Standard Dual Compressor)	0.61-0.7 kW/ton (COP 4.7 to 5.4)	1500 to +4,000	400 to 450	\$3,700–\$4,200
Electric Centrifugal (Single Compressor Industrial – Field Erected)	0.61-0.7 kW/ton (COP 4.7 to 5.4)	2,500 to +5,500	650 to 800	\$4,800–\$5,500
Engine-Driven Centrifugal	(COP 1.5-1.9)	100 to +3000	450 to 650	\$4,400 + engine maintena
Steam Driven Centrifugal	_	100 to +4000	_	\$3,500+ depending on s
Direct Fired (Double Effect) Absorption Chiller	(COP 0.85-1.20)	<100 to >3250	400 to 2000	\$4,800–\$5,500
HW Absorption Chiller (Single Effect)	(COP 0.55-0.70)	<60 to >3250	450 to 1000	\$4,800–\$5,500
Steam Absorption Chiller (Single Effect)	(COP 0.60-0.75)	<60 to >3250	450 to 800	\$4,800–\$5,500

<sup>\*</sup>Maintenance costs courtesy of Johnson Controls, Inc./York International. Typical annual activities include changing oil filter, oi analysis and motor checks. Costs do not include cleaning tubes, eddy current testing or complete oil or refrigerant replacement approximate pricing:

Page 4.39 In Example 4.7, 40 gal/min (0.25 L/s) should read 40 gal/min (2.51 L/s).



<sup>1.</sup> Cleaning evaporator or condenser tubes as required use \$1,200.

Eddy current testing for under 500 ton chiller use \$1,700 and \$2,500 for larger chillers.
 Complete oil replacement contact vendor's service department.

For all absorbers a Bromide test is conducted twice per year. Costs do not include chemicals.