



COOLING TOWERS AND HEAT EXCHANGERS

Tower Survey Report														
Renaissance Vinoy - Tampa														
Date of Survey:	12/09/11			Survey By:	1 Mike Morin			2						
Contact:				Cell:				email:						
Mfg.	MARLEY			M/N:	NC512S		S/N:	225615N		#Cells	2		Belt#	N/A
Age:	1991	Mtr HP	25	Tons:	800(2)		Location	Grade	x	Roof	x	I Beam	Height	3'
Safety Needs?		Yes	X	No	If Yes:		Ladder	Cage		Handrail		Platform		
Cold Water Basins		Repair		Replace		Coat	X	Leaks		Other (Explain)				
Hot Water Basins		Repair		Replace		Coat	X	Leaks						
Heat Transfer Wetdeck		Repair	X	Replace		Clean								
Powertrain		Repair	X	Replace		Service								



OTHER EQUIPMENT:					
Water Filtration	MFG	N/A	M/N	S/N	

SURVEY RESULTS/ACTION RECOMMENDATIONS
Pages Follow w/Documented Photographs of Action/Attention Recommendations!

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Date: 12/09/11

Renaissance Vinoy - Tampa

Predictive Maintenance, Parts, Repairs, Refurbishments, Replacements									
Areas Requiring Attention/Monitoring-Photos Attached!									
Short Term-(1) Year or Less					Long Term-(3) Years or Less				
1		CP	Casing Panels		1		CP	Casing Panels	
2	X	CWB	Cold Water Basins		2	X	CWB	Cold Water Basins	
3	X	HWB	Hot Water Basins		3	X	HWB	Hot Water Basins	
4	X	PT	Power Train-(Fans-Gear Box-Motor)		4		PT	Power Train-(Fans-Gear Box-Motor)	
5	X	WD	Wet Deck		5		WD	Wet Deck	
6		DBH	Distribution Boxes/Headers		6		DBH	Distribution Boxes/Headers	
7	X	SFT	Safety		7	X	SFT	Safety	
8		WFT	Water Filtration/Treatment		8		WFT	Water Filtration/Treatment	
9		MISC	Controls (VFD's, etc.)		9		MISC	Controls (VFD's, etc.)	
10		OT	OTHER: (Explain)		10		OT	OTHER: (Explain)	
LEGEND:		X	ISSUES to ADDRESS!	X	Caution Issues!		NO Issues!		

Survey Findings & Recommended Actions!						
PicNo.	Short Term (in order of urgency)					Budget
1	Wetdeck (Fill) Replacement (Both Towers)					\$75,000
2	Gearbox Replacement (Both Towers)					\$25,000
3	Cold and Hot Water Basin Leaks					\$5,000
4	Safety Cage on One Ladder					\$3,500
Comments Short Term					TOTAL ESTIMATED:	\$108,500
(1) Wetdeck (Fill) is 21 yrs old and is plugged and heavily scaled requiring replacement. (2) Both gearboxes main seals are leaking along with corrosion of casing and need to be replaced. (3) Cold water sump and hot water basins are in good shape but have some leaking issues and need to be re-sealed. (4) No safety cage on ladder to top of tower.						
ItmNo	Long Term (Should be evaluated @ Spring Start Up PM)					Budget
	Completely Refurbish Both Cooling Towers					\$100,000
	Completely Relace Both Cooling Towers					\$325,000
Comments Long Term					TOTAL ESTIMATED:	
This tower in very good shape for being 21 years old and an Excellent candidate for refurbishment. With above issues addressed and completed, this tower should perform well for another 10 years.						
Dimensions	L	21'	W	12	D	TOTAL SHORT & LONG TERM EST. \$108,500

Survey Photos of Areas Addressed for Parts, Repairs, Refurbishments, or Replacements								
Issue Photos	1	Wetdeck	2	Gearbox	3	Seams	4	Safety
1				1				
1				2				
3								