

**NCSX June 2007 ETC  
TABLE V - Basis of Estimate**

**WBS Number: 63  
WBS Title: Utility Systems  
Job Number: 6301  
Job Title: Utility Systems  
Job Manager: Larry Dudek**

Backup Data

**Vent Systems Material Takeoffs**

Vent

Size		Labor Manhours	Material Cost (\$)	Total Labor (Mhours)	M&S (\$)	Size		Labor Manhours	Material Cost (\$)	Total Labor (Mhours)	M&S (\$)
Material: 304 SS						Material: 304 SS					
Sch10 with Clevis hangers						Ball VALVES 150 #, Threaded (Bronze)					
	Linear Feet					1/2"		0.364	\$4.45	0	\$0
	1"	0.160	\$5	0	\$0	1"		0.421	\$9.25	3.368	\$74
	1-1/4"	0.176	\$5	0	\$0	2"	9	0.727	\$25.00	0	\$0
	1-1/2"	0.193	\$7	0	\$0						
	2"	0.239	\$9	0	\$0						
	1-1/2"	0.314	\$11	0	\$0						
	3"	0.348	\$13	0	\$0						
	4"	300	\$17	114	\$4,983						
Sch 5 and 10 NO. JOINTS						Pipe					
	1"	1.000		0	\$0	1"		0.160	\$5	0	\$0
ELBOWS						Install Pump					
	Quantity							32.000	\$10,000	0	\$0
	3"	2.670	\$20	0	\$0	Install HT Xchgr					
	4"	4.000	\$39	48	\$468			40.000	\$0	0	\$0
45 Deg. ELBOWS						Install Instru					
	Quantity							0	\$200	0	\$0
	3"	2.670	\$18	0	\$0	<b>Totals</b>					
	4"	4.000	\$39	16	\$156					322	\$6,391
	5"	5.330	\$215	0	\$0	For Small Quantities M&S add:10%					
TEES											
	Quantity					Subtotal (1991\$)					
	4"	10	\$71	80	\$710						
	5"	8.000	\$285	0	\$0	Escalation from 1991\$ to 2007\$ for 304SS					
FLANGES, SLIP ON 14											
	Quantity					Approximate Cost of M&S in 2007\$					
	1"	0.296	\$20	0	\$0	<b>\$22,207</b>					
VALVES											
	4" (Motorized)	8.000	\$2,000	0	\$0						
	6"	12.000	\$500	0	\$0						
	16"	16.000	\$800	0	\$0						

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**Air Systems Material Takeoffs**

Air													
Size		Labor	Material Cost	Total Labor	M&S	Size	Labor	Material Cost	Total Labor	M&S			
		(Manhours)	(\$)	(Hours)	(\$)		(Manhours)	(\$)	(Hours)	(\$)			
					(in 1991 \$)					(in 1991 \$)			
<b>Cu Type K</b>						<b>Cu Type K</b>							
<b>Type L, couplings with Clevis hangers @ 10' intervals</b>						<b>Ball VALVES 150 # Threaded</b>							
	1/2"	0.103				1/2"	0.354	\$4.45	0	\$0			
	3/4"	0.108	\$1.18	0	\$0	1"	0.421	\$9.25	3.368	\$74			
	1"	200	\$1.77	0	\$0	2"	0.727	\$25.00	0	\$0			
	1-1/4"	0.121	\$2.45	24.2	\$493	<b>Pipe</b>							
	1-1/4"	0.143	\$3.35	0	\$0	Install Pump	16	\$500	0	\$0			
						2" (3hp)	6.96	\$1,320	0	\$0			
						Install Hi Xchg	48	\$0	0	\$0			
						Install Instru	16	\$200	0	\$0			
						Install Pwr	34	\$1,000	0	\$0			
						Install Tank	96	\$5,000	0	\$0			
						<b>Totals</b>					48	\$631	
						For Small Quantities M&S add 10%						\$63	
						Subtotal (1991\$)						\$694	
						Escalation from 1991\$ to 2007\$ for 304SS						3.16	
						Approximate Cost of M&S in 2007\$						\$2,191	
						For Small Quantities M&S add 10%						\$0	
						<b>TOTAL</b>						44.6	\$557
						<b>ManWeeks</b>						1.115	
						M&S in FY 2007 \$						\$1,758.45	
						M&S						\$1,800	