

CLIN 1 Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
GFQ 0081 URS		ALB-Dual Basket Strainers & Sump Pit - (4) Strainer Cartridge	Weekly	4		2	24	PT	Mechanical					4/30/2017	5/31/2017	May		52
		ALB-Flow Meters	Monthly	4 & 23		2	24	PT	Mechanical					7/31/2017	8/31/2017	August	Check As Needed	12
		ALB-Marley Cooling Tower	Monthly	4		1	12	PT	Mechanical			1. General Condition and Operations. 2. Mechanical-Motor, fan, and drive mechanism. 3. Check for any unusual noise or vibration. 4. Check and clean air inlet fins if necessary. 5. Check oil level in fan gear box, fill as needed.		7/31/2017	8/31/2017	August	7/31/17: Monitored levels. Will clean in August	12
		ALB-Marley Cooling Tower	Quarterly	4		4	12	PT	Mechanical			1. Check gear box and fan coupling oil, visible wear, or other defects. 2. Operate fan manually at least once every three months for an hour. 3. Inspect for any loose harware on the structure	Monthly cleaning and inspection	9/30/2016	12/30/2016	December		4
		ALB-Griswold Pump (Back up for B4 Cooling loop pump)	Monthly	4	Room 107 West Wall Pallet	0.5	6	PT	Mechanical			Manual turn over of pump impeller		7/31/2017	8/31/2017	August	7/31/17: Had rebuilt, stored B4	12
		ALB-Leeson 7.5hp Spray Pump Motor & Griswold Suction Pump & Pioneer Pump	Annual	4	Cooling Tower	1	1	JB	Electrical			1. A qualified Electrical Technician shall inspect the motor terminations for any possible loose connections causing overheating on wiring and motor terminations.	Leeson electric recommends that the 7.5hp Spray Pump motors be lubricated once every 3 to 5 years depending on usage. See attachment for details.	2/14/2017	2/28/2018	February		1
		ALB-Leeson 7.5hp Spray Pump Motor & Griswold Suction Pump & Pioneer Pump	Monthly	4	Cooling Tower	1	12	PT	Mechanical			Drain volute case of pumpage when sitting idle to avoid freezing		7/31/2017	8/31/2017	August	7/31/17: Spray Pump #1 re-built and re-installed. Spray Pump #2, No leaks, sounds good.	12
		ALB-Marley Cooling Tower	Monthly	23		1	12	PT	Mechanical			1. General Condition and Operations. 2. Mechanical-Motor, fan, and drive mechanism. 3. Check for any unusual noise or vibration. 4. Check and clean air inlet fins if necessary. 5. Check oil level in fan gear box, fill as needed.		7/31/2017	8/31/2017	August	7/31/17: Monitored levels. Needs cleaned in August.	12
		ALB-Marley Cooling Tower	Quarterly	23		4	12	PT	Mechanical			1. Check gear box and fan coupling oil, visible wear, or other defects. 2. Operate fan manually at least once every three months for an hour. 3. Inspect for any loose harware on the structure	Monthly cleaning and inspection	2/28/2017	5/31/2017	May		4
		ALB-Bag Filter	Monthly	23		1	12	PT	Mechanical			Check bag filter monthly, replace fileter when necessary		7/31/2017	8/31/2017	August	7/31/17: Monitored pressure, bled air and debris.	12
		ALB-UPS	Semi-Annual	1	120	8	16	JB										2
		ALB-West Bay Gas Cylinder Storage		18	West Bay	0	0	CP										
		ALB-Jefferson Dry Tape Transformer	Annual (365 Days)	1	120	4	4	JB	Electrical		223-3234-055	1. Blow out unit with air to remove debris build up 2. Tighten connections 3. Verify correct voltages 4. Visual inspection of primary and secondary conductors 5. Visual inspection of coils 6. Visual inspection of exterior case						1
		ALB-Zinsco Transformer	Annual (365 Days)	1	120	4	4	JB	Electrical	HWTW	247-3 303-411-5HMW	1. Blow out unit with air to remove debris build up 2. Tighten connections 3. Verify correct voltages 4. Visual inspection of primary and secondary conductors 5. Visual inspection of coils 6. Visual inspection of exterior case						1
516		ALB-AMStar Milling Machine	Semi-Annual	5	101	8	16	TG	Mechanical		04428	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual inspection and cleaning	7/27/2017	1/31/2018	January	7/27/17: Cleaned, wiped down. No repairs have been made.	2

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
	B05SND01	ALB-Atlas Belt/Rotary Sander	Semi-Annual	5	111	4	8	TG	Mechanical	5010	8177	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual inspection and cleaning	4/25/2017	10/31/2017	October		2
43114	B05GRND01	ALB-Baldor Bench Grinder	Semi-Annual	5	111	4	8	TG	Mechanical	W2M-3754	K14604	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual inspection and cleaning	6/2/2017	12/31/2017	December		2
53404		ALB-Baldor Bench Grinder	Semi-Annual	5	111	4	8	TG	Mechanical	5324M	568	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual inspection and cleaning	3/30/2017	9/30/2017	September		2
0000967		ALB-Bridgeport Milling Machine	Annual (365 Days)	5	101	8	8	TG	Mechanical		J173147	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Annual inspection and cleaning of equipment. Machine does not require lubrication. Refer to Installation, Operation, and Maintenance manual page 2-4 section 2.14 Lubrication of the Machine.	1/30/2017	1/31/2018	January	Frequent use. Smaller unit	1
C 5513	B05MILLO2	ALB-Bridgeport Milling Machine	Annual (365 Days)	5	101	8	8	TG	Mechanical	Series II	7480	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Annual inspection and cleaning of equipment. Machine does not require lubrication. Refer to Installation, Operation, and Maintenance manual page 2-4 section 2.14 Lubrication of the Machine.	1/30/2017	1/30/2018	January	In frequent use	1
A00012URS		ALB-Bridgeport Milling Machine	Annual (365 Days)	5	101	8	8	TG	Mechanical			*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Annual inspection and cleaning of equipment. Machine does not require lubrication. Refer to Installation, Operation, and Maintenance manual page 2-4 section 2.14 Lubrication of the Machine.	-	1/31/2018	January	New unit.	1
	B05GRND04	ALB-Brown-Brockmeyer Bench Grinder	Semi-Annual	5	102	4	8	TG	Mechanical	S_G 72 E S 6971	2708924	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual inspection and cleaning	6/19/2017	12/31/2017	December		2
0000951		ALB-CINCINNATI Cylindrical Grinder	Annual (365 Days)	5	101	8	8	TG	Mechanical		4U2B5B2B	1. Adjusting the Main Drive Belts 2. Adjusting Tension of Friction Clutch on the Hand Hydraulic Infeed Machines 3. Adjusting the Grinding Wheel Spindle Thrust Bearing 4. Adjusting the Grinding Wheel Spindle Bearings 5. Adjusting the Headstock Spindle Bearings 6. Adjusting the Headstock Motor Drive Belt 7. Adjusting Volume of Oil to Ways 8. Adjusting the Hydraulic Pressure 9. Adjusting the Way Oil Pressure 10. Adjusting the Cross Feed Backlash Eliminator	Annual maintenance for Cincinnati grinding machine. Refer to operator's instruction booklet pages 66-73 for details and diagrams.					1

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
0000509	B05LATH01	ALB-Clausing Clochester Lathe	Semi-Annual	5	101	16	32	TG	Mechanical		LVT50SIL JV/05610	1. Lathe Alignment 2. End Gear Train 3. Driving Belt 4. Leadscrew Torque Limiting Device 5. Change Gear Shear Pin 6. Slideways 7. Cross-Slide Nut 8. Spindle Brake 9. Spindle Bearings 10. Lubrication	Semi Annual cleaning, lubrication and inspection. Refer to instruction and spare parts manual pages 14-20	7/27/2017	1/31/2018	January	7/27/17: Cleaned, wiped down, lubricated tracks, inspected	2
86432		ALB-Clausing Clochester Lathe	Semi-Annual	5	102	16	32	TG	Mechanical		LVM25SIL JV/02660	1. Lathe Alignment 2. End Gear Train 3. Driving Belt 4. Leadscrew Torque Limiting Device 5. Change Gear Shear Pin 6. Slideways 7. Cross-Slide Nut 8. Spindle Brake 9. Spindle Bearings 10. Lubrication	Semi Annual cleaning, lubrication and inspection. Refer to instruction and spare parts manual pages 14-20	7/27/2017	1/31/2018	January	7/27/17: Cleaned, wiped down, lubricated tracks, inspected	2
0086415		ALB-Dake Hydraulic Press	Semi-Annual	5	101	4	8	TG	Mechanical	5-025-4	191435	*No Operating Manual Found*  1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual inspection and cleaning					2
0000917		ALB-Delta Drill Press	Semi-Annual	5	102	4	8	TG	Mechanical		98 3747	*No Operating Manual Found*  1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection					2
43111	B05GRND05	ALB-Delta Bench Grinder	Semi-Annual	5	111	4	8	TG	Mechanical	1268	L 30-32	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual cleaning and inspection	10/31/2016	4/30/2017	April		2
0000994	B05SAW01	ALB-Do ALL Bandsaw	Annual (365 Days)	5	101	8	8	TG	Mechanical	3616-0	278-75675	1. Preventative Maintenance 2. Butt Welder 3. Drive Motor 4. Lubrication	Annual maintenance and inspection for DoALL. Refer to operator's instruction manual page 47-49.	5/16/2016	5/30/2017	May		1
C 5501		ALB-HAAS CNC Milling Machine	Semi-Annual	5	101	12	24	TG	Mechanical		20517	*No Operating Manual Found*  1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection					2
0000949		ALB-Hammond Bench Grinder	Semi-Annual	5	102	4	8	TG	Mechanical		4 4380	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual cleaning and inspection					2

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
10305		ALB-Harig Surface Grinder	Semi-Annual	5	101	4	8	TG	Mechanical	618	7417-H	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	6 month cleaning and oil checks.  Refer to page 8 of Operation Maintenance Manual  *"This Machine requires only surface cleaning. All internal parts are cleaned automatically by the built in flow system."	1/30/2017	7/31/2017	July	Unit not in parallel, very tired.	2
		ALB-Kearney & Trecker Universal Milling Machine	Annual	5	101	8	16	TG	Mechanical		10-7418	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection	1/31/2017	1/31/2018	January	Not used since the last PM was performed. Leaking oil. If the unit is used in the future, the oil reserve will be checked before use.	1
0000955		ALB-K.O. Lee Cutter Grinder	Semi-Annual	5	101	4	8	TG	Mechanical		10092-1266	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection					2
0000517	B05SAW02	ALB-Marvel Bandsaw	Quarterly	5	101	8	32	TG	Mechanical	Mark II	826714	1. Changing Coolant 2. Lubrication 3. Replacement bulb for work light 4. Band wheel alignment 5. Blade guides 6. Adjustment of Pressure Blocks 7. Blade Guide Alignment Adjusting 8. Blade Wipers 9. Power Feed System 10. Replacement of Variable Speed Belt 11. Replacement of Intermediate Drive 12. Replacement of Final Drive Belt 13. Re-Calibrating Blade Tensioner Stop 14. Check blade brush and rubber wheel, adjust tension spring for brush.	Quarterly maintenance for Marvel Band Saw  Refer to maintenance manual pages 13-15 for detailed activities.	4/25/2017	7/31/2017	July	Very Frequent Use.	4
0000964		ALB-Marvel Bandsaw	Semi-Annual	5	111	8	16	TG	Mechanical	Marvel No. 8	82787	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection					2
0000940		ALB-Monarch Lathe	Annual (365 Days)	5	102	8	8	TG	Mechanical	16"	32939	1. Lubrication 2. Care and Operation of the Lathe	Annual inspection/cleaning for Monarch Lathes. Refer to operator's manual page 5 for sections listed above in step description.	6/19/2017	6/30/2018	May		1
0000948		ALB-Monarch Lathe	Annual (365 Days)	5	101	8	8	TG	Mechanical	22"CM	25934-A	1. Lubrication 2. Care and Operation of the Lathe	Annual inspection/cleaning for Monarch Lathes. Refer to operator's manual page 5 for sections listed above in step description.	6/19/2017	6/30/2018	May	Not used. Cleaned up oil on base tray.	1

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
0000916		ALB-Racine Hydraulic Shear	Semi-Annual	5	101	4	8	TG	Mechanical	41CX	900374	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection					2
0000980	B05DPRS03	ALB-Rockwell Drill Press	Semi-Annual	5	101	2	4	TG	Mechanical	EFI-2	51364-19	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection	4/25/2017	10/31/2017	October		2
0050846		ALB-Rudel/Heidenreich & Harbeck Hamburg Lathe	Annual (365 Days)	5	101	12	12	TG	Mechanical	21 R0	80-0117-2717	1. Inaccurate Turning 5.1 2. Headstock 5.2 3. Norton Gear Box 5.3 4. The Carriage 5.4 5. Tailstock 5.5	VDF 21 RO Annual Maintenance  Refer to operating manual section 5 for maintenance instructions.					1
0000911		ALB-Sheldon Yernon Milling Machine	Semi-Annual	5	102	8	16	TG	Mechanical	No."0"	3-5624	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection					2
43128	B05GRND09	ALB-Square D Bench Grinder	Semi-Annual	5	111	4	8	TG	Mechanical	H32A	8536Y514	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual cleaning and inspection	3/30/2017	9/30/2017	September		2
0000918	B05GRND11	ALB-USETC Bench Grinder	Semi-Annual	5	111	4	8	TG	Mechanical	500	532805	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual cleaning and inspection	6/2/2017	12/31/2017	December		2
0000924		ALB-Niagra Stop Sheer	Annual (365 Days)	10	101	8	8	JM	Mechanical	196	38032	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	2/16/2016	2/28/2017	February		1
	B10WELD02	ALB-Dayton Portable Spot Welder	Annual (365 Days)	10	101	2	2	JM	Mechanical	2Z544	721-A1	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	2/28/2017	2/28/2018	February		1
53389		ALB-Di-Arco Punch	Annual (365 Days)	10	101	2	2	JM	Mechanical		B-1395	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	3/30/2017	3/30/2018	March		1
0000965	B10LATH01	ALB-Di-Arco Roll	Annual (365 Days)	10	101	2	2	JM	Mechanical		4 GD-1362	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	2/28/2017	2/28/2018	February		1

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
0000034823	B10WELD03	ALB-Miller Spot Welder	Annual (365 Days)	10	101	2	2	JM	Mechanical	901357	LJ220096K	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	2/28/2017	2/28/2018	February		1
0000925	B10LATH03	ALB-Niagara Stomp Sheer	Annual (365 Days)	10	101	2	2	JM	Mechanical	36		*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	2/28/2017	2/28/2018	February		1
0000511		ALB-Niagara Circle Cutter	Annual (365 Days)	10	101	2	2	JM	Mechanical	R-1213		*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	5/19/2017	5/31/2018	May		1
	B10LATH05	ALB-Peck, Stow & Wilcox Bender	Annual (365 Days)	10	101	3	3	JM	Mechanical	63F	2-41	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	2/28/2017	2/28/2018	February		1
35094	B10LATH10	ALB-Peck, Stow & Wilcox Roller	Annual (365 Days)	10	101	2	2	JM	Mechanical	0350A	12/54	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	2/28/2017	2/28/2018	February		1
		ALB-Peck, Stow & Wilcox Roller	Annual (365 Days)	10	101	2	2	JM	Mechanical	390-D	05-41	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	9/30/2016	9/30/2017	September	Excess	1
0000920		ALB-Bender	Annual (365 Days)	10	101	2	2	JM	Mechanical			*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	3/30/2017	3/31/2018	March		1
0000910		ALB-Whitney-Jensen Bender	Annual (365 Days)	10	101	2	2	JM	Mechanical	4-14 Gauge	414-414-1152	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	3/30/2017	3/31/2018	March		1
0086153		ALB-Wysong Hydraulic Shear	Annual (365 Days)	10	101	4	4	JM	Mechanical	1052	P58-159-F	1. Back Gauge Stop Adjustment - Backlash 2. Back Gauge Stop Adjustments - Zeroing Dials 3. Back Stop Adjustment - Parallel 4. Blade Adjustment - Checking Clearance 5. Blade Adjustment - Procedure 6. Table Adjustment Screws 7. Blade Adjustment - Shimming 8. Blade Changing - Single End Frame Shear 9. Blade Grinding 10. Belt Adjustment 11. Brake Adjustment 12. Knife Bar Ways Adjustment - Single End Frame Shear 13. Refer to lubrication chart - lubricate as instructed.		9/30/2016	9/30/2017	September		1
		ALB-Marvel Bandsaw	Semi-Annual	11	101	8	16	JM	Mechanical	8-MARK-II	829043	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection	6/19/2017	12/31/2017	December	Wiped down machine and cleaned metal shavings	2
0087251		ALB-Miller Welder	Annual (365 Days)	11	101	16	16	JM	Mechanical	Aerowave 300	KG106731	1) Blow out or vacuum inside machine. Visually inspect labels - replace if needed 3) Repair or replace cracked weld cables 4) Clean and tighten weld terminals 5) Inspect and adjust spark gap 6) Inspect 14-pin Cord, Gas Hose and Torch Cable, replace cracked parts 2)	Quarterly and Semi-Annual PM have been combined into an Annual PM due to infrequent use of welder. ALWAYS DISCONNECT BEFORE MAINTAINING.	9/30/2016	9/30/2017	September		1

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
0000941		ALB-Bertsch & Company Shear	Annual (365 Days)	11	101	20	20	JM	Mechanical		721	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection	9/30/2016	9/30/2017	September	Changed from Semi-Annual to Annual due to infrequent use.	1
		ALB-Brown-Brockmeyer Bench Grinder	Annual (365 Days)	11	101	4	4	JM	Mechanical	w_G_656 A	272465	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual cleaning and inspection PM has changed frequency to annual due to infrequent use	9/30/2016	9/30/2017	September		1
0087086		ALB-Colchester Lathe	Annual (365 Days)	11	101	8	8	JM	Mechanical	B2000	GB0021	1. Lathe Alignment 2. End Gear Train 3. Driving Belt 4. Leadscrew Torque Limiting Device 5. Change Gear Shear Pin 6. Slideways 7. Cross-Slide Nut 8. Spindle Brake 9. Spindle Bearings 10. Lubrication	Annual cleaning, lubrication and inspection  Refer to Instruction and Spare Parts Manual pages 14-20	2/28/2017	2/28/2018	February		1
		ALB-Miller Torch Cooler	Annual (365 Days)	11	101	4	4	JM	Mechanical	Coolmate 3	KG191478	1. Oil Motor 2. Change Coolant		6/16/2017	6/30/2018	May	Not used since the last PM. Inspected and blew out air fins.	1
		ALB-Miller Torch Cooler	Quarterly	11	101	2	8	JM	Mechanical	Coolmate 3	KG191478	1. Clean Coolant Filter 2. Blow Out Heat Exchanger Fins 3. Wipe Down Equipment		3/30/2017	6/30/2017	June	3-Gallons of Coolant	4
43190		ALB-Hisey-Wolf Bench Grinder	Annual (365 Days)	11	101	4	4	JM	Mechanical			1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual cleaning and inspection PM has changed frequency to annual due to infrequent use	9/30/2016	9/30/2017	September		1
		ALB-Jet Bench Grinder	Annual (365 Days)	11	101	2	2	JM	Mechanical	JBG-8A	04055229	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Perform visual inspection of bench grinder to ensure safe operation.	9/30/2016	9/30/2017	September	Frequency changed from semi-annual to annually due to infrequent use.	1
0000011553		ALB-Thermal Dynamics Plasma Cutting System	Annual (365 Days)	11	101	8	8	JM	Mechanical	PAK Master 150 XL	02054678	Drain coolant, fill with distilled water, turn on main power switch and let machine run for approximately 30 minutes. 1. Remove and clean in-line screens. 2. Check cables and hoses for leaks or cracks, replace if necessary. 3. Check all contactor points for severe arcing or pits, replace if necessary. 4. Check all pillow blocks and bearings, clean and lubricate if necessary. 5. Check fan, pump and pulley belts for wear or cracking, replace if necessary	Annual maintenance					1
		ALB-Powermatic Drill Press	Semi-Annual	11	101	4	8	JM	Mechanical	CS-68-FM3-3FA	C10	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection	6/19/2017	12/31/2017	December	Belt # 1922V443 43, Maurey Variable Spped Green Seal	2

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
S18580		ALB-Miller Welder	Annual (365 Days)	11	101	8	8	JM	Mechanical	Syncrowave 350 XL	LA181957	1) Blow out or vacuum inside machine. Visually inspect labels - replace if needed 3) Repair or replace cracked weld cables 4) Clean and tighten weld terminals 5) Inspect and adjust spark gap 6) Inspect 14-pin Cord, Gas Hose and Torch Cable, replace cracked parts	2)  ALWAYS DISCONNECT BEFORE MAINTAINING.	9/30/2016	9/30/2017	September		1
0086323		ALB-Ilzuka Tungsten Electrode Grinder		11	101	2	2	JM	Mechanical	IG-2		1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Perform visual inspection of bench grinder to ensure safe operation.	9/30/2016	9/30/2017	September		1
		ALB- AGET Baghouse	Monthly	23	Outside East Alley	8	96	PT	Mechanical	FT88S101D1	104	1. Spot check bag-seating condition. 2. Check all moving parts on shaker baghouses. 3. Check fan for corrosion and blade wear. 4. Check all hoses and clamps. 5. Spot check for bag leaks and holes. 6. Inspect baghouse housing for corrosion.	Monthly checks of baghouse: · Check the cleaning sequence of the baghouse. · Pulse jet baghouse - check the air delivery system · Check the hopper functions and performance. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Maintain a written record of the inspection and any action resulting from the inspection.	1/30/2015	2/28/2015	February		12
		ALB-New York Blowers/Cyclones	Semi-Annual	23	Outside East Alley	6	12	JO	Mechanical	Series 20 GI Fan	R14626 100			7/31/2014	2/28/2015	February	Belt X2 (AX42)	2
		ALB-Baghouse - Scientific Dust Collector	Monthly	23	Outside NE Corner Alley	8	96	PT	Mechanical	SPJ-84-X4RT6		1. Spot check bag-seating condition. 2. Check all moving parts on shaker baghouses. 3. Check fan for corrosion and blade wear. 4. Check all hoses and clamps. 5. Spot check for bag leaks and holes. 6. Inspect baghouse housing for corrosion.	Monthly checks of baghouse: · Check the cleaning sequence of the baghouse. · Pulse jet baghouse - check the air delivery system · Check the hopper functions and performance. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Maintain a written record of the inspection and any action resulting from the inspection.	4/30/2017	5/31/2017	May		12
		ALB-Baghouse - Scientific Dust Collector	Quarterly	23	Outside East Alley	16	64	JO	Mechanical	SPJ-84-X4RT6		1. Thoroughly inspect bags. 2. Check duct for dust buildup. 3. Observe damper valves for proper seating. 4. Check gaskets on all doors. 5. Inspect paint on baghouse. 6. Calibrate opacity monitor. 7. Inspect baffle plate for wear.	Quarterly checks of baghouse: · Thoroughly inspect bags for leaks and wear. (Look for obvious holes or tears in the bags.) If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Bag replacement should be documented by identifying the date, time and location of the bag in relationship to the other bags. The location should be identified on an overhead drawing of the bag layout in the baghouse. Maintain a written record of the inspection and any action resulting from the inspection.	7/31/2017	10/31/2017	October	7/31/17: Listened to fuction. Checked pressure differential. All okay.	4



Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
		ALB-Baghouse	Monthly	24	Outside East	8	96	PT	Mechanical			1. Spot check bag-seating condition. 2. Check all moving parts on shaker baghouses. 3. Check fan for corrosion and blade wear. 4. Check all hoses and clamps. 5. Spot check for bag leaks and holes. 6. Inspect baghouse housing for corrosion.	Monthly checks of baghouse: · Check the cleaning sequence of the baghouse. · Pulse jet baghouse - check the air delivery system · Check the hopper functions and performance. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Maintain a written record of the inspection and any action resulting from the inspection.	1/30/2015	2/27/2015	February		12
		ALB-Baghouse	Quarterly	24	Outside East	16	64	JO	Mechanical			1. Thoroughly inspect bags. 2. Check duct for dust buildup. 3. Observe damper valves for proper seating. 4. Check gaskets on all doors. 5. Inspect paint on baghouse. 6. Calibrate opacity monitor. 7. Inspect baffle plate for wear.	Quarterly checks of baghouse: · Thoroughly inspect bags for leaks and wear. (Look for obvious holes or tears in the bags.) If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Bag replacement should be documented by identifying the date, time and location of the bag in relationship to the other bags. The location should be identified on an overhead drawing of the bag layout in the baghouse. Maintain a written record of the inspection and any action resulting from the inspection.	11/28/2014	2/28/2014	February		4
		ALB-Baghouse	Semi-Annual	24	Outside East	24	48	JO	Mechanical			1. Check all welds and bolts. 2. Check hopper for wear. 3. Replace high-wear parts on cleaning system.	Semi Annual checks of baghouse: · Inspect every 6 months all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Maintain a written record of the inspection and any action resulting from the inspection.	11/28/2014	5/31/2014	May		2
AB24EXH01		ALB-New York Blowers/Cyclones	Quarterly	24	Outside West	6	24	JO	Mechanical	Series 20 GI Fan	X13148 100	Disconnect the electrical supply circuit from the motor prior to working on unit. 1. Check and lubricate blower bearings. 2. Check and lubricate motor bearings.	Quarterly cleaning and inspection	1/27/2014	4/30/2014	April	6-hours scheduled, 1-hour to comoplete work.	4
		ALB-Baghouse - Scientific Dust Collector	Monthly	25	NE Alley (North side of B24 Corral)	8	96	JO	Mechanical	SPJ-144-X4RT8	61924	1. Spot check bag-seating condition. 2. Check all moving parts on shaker baghouses. 3. Check fan for corrosion and blade wear. 4. Check all hoses and clamps. 5. Spot check for bag leaks and holes. 6. Inspect baghouse housing for corrosion.	Monthly checks of baghouse: · Check the cleaning sequence of the baghouse. · Pulse jet baghouse - check the air delivery system · Check the hopper functions and performance. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Maintain a written record of the inspection and any action resulting from the inspection.	4/30/2017	5/31/2017	May		12

[illegible]

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
0000959	B05GRND10	ALB-Thompsen Surface Grinder	Annual (365 Days)	5	101	4	4	PT	Mechanical		B-596143	1. Hydraulic Pressure 2. Machine Leveling 3. Gib Adjustment 4. Table Over-run 5. Wheel Head Reverse 6. Elevation Brake	Annual Maintenance for Thompsen Grinder -  Refer to operational manual page 15 for Adjustments and diagrams	1/31/2017	-	-	No longer in service. The unit has been tagged out.	1
Stored for Future Use	B10LATH06	ALB-Peck, Stow & Wilcox Crimper Tin'ers Table	Annual (365 Days)	10	101	2	2	JM	Mechanical	76-D	3-41	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	1/27/2012	1/27/2013		Item have been stored for future use.	
Stored for Future Use	B10LATH07	ALB-Peck, Stow & Wilcox Crimper Tin'ers Table	Annual (365 Days)	10	101	2	2	JM	Mechanical	135		*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	1/27/2012	1/27/2013		Item have been stored for future use.	
Stored for Future Use	B10LATH08	ALB-Peck, Stow & Wilcox Crimper Tin'ers Table	Annual (365 Days)	10	101	2	2	JM	Mechanical	620E	7-41	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	1/27/2012	1/27/2013		Item have been stored for future use.	
Stored for Future Use	B10LATH09	ALB-Peck, Stow & Wilcox Crimper Tin'ers Table	Annual (365 Days)	10	101	2	2	JM	Mechanical	622E	52	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	Annual cleaning and inspection	1/26/2012	1/26/2013		Item have been stored for future use.	
0000937		ALB-Buffalo Iron Worker	Annual (365 Days)	11	101	8	8	JM	Mechanical		487-11451	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Annual cleaning and inspection	6/13/2014	6/30/2015	June	Frequency changed from semi-annual to annually due to infrequent use. Still locked out for foot pedal issue. Tagged out of Service. 20170330: Cannot be exceeded due to historical issue. No room in the warehouse to store. It will remain in B11.	1
		ALB-Gas Cylinder Shed and Associated Distributing Tubing		1	Outside	0	0	On Hold										
		ALB-Blowers/Cyclones	Semi-Annual	27	Outside Southwest	6	12	JO	Mechanical					3/16/2012	9/16/2012	September		2
		ALB-Baghouse	Semi-Annual	23	Outside East Alley	24	48	JO	Mechanical			1. Check all welds and bolts. 2. Check hopper for wear. 3. Replace high-wear parts on cleaning system.	Semi Annual checks of baghouse: · Inspect every 6 months all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Maintain a written record of the inspection and any action resulting from the inspection.	11/28/2014	5/31/2014	May		2
		ALB-Baghouse	Monthly	23	Outside North	8	96	PT	Mechanical			1. Spot check bag-seating condition. 2. Check all moving parts on shaker baghouses. 3. Check fan for corrosion and blade wear. 4. Check all hoses and clamps. 5. Spot check for bag leaks and holes. 6. Inspect baghouse housing for corrosion.	Monthly checks of baghouse: · Check the cleaning sequence of the baghouse. · Pulse jet baghouse - check the air delivery system · Check the hopper functions and performance. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Maintain a written record of the inspection and any action resulting from the inspection.	1/30/2015	2/28/2015	February	WO On Hold, not in use at this time	12

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
		ALB-Baghouse	Quarterly	23	Outside North	16	64	JO	Mechanical			1. Thoroughly inspect bags. 2. Check duct for dust buildup. 3. Observe damper valves for proper seating. 4. Check gaskets on all doors. 5. Inspect paint on baghouse. 6. Calibrate opacity monitor. 7. Inspect baffle plate for wear.	Quarterly checks of baghouse: · Thoroughly inspect bags for leaks and wear. (Look for obvious holes or tears in the bags.) If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Bag replacement should be documented by identifying the date, time and location of the bag in relationship to the other bags. The location should be identified on an	11/28/2014	2/28/2014	February	WO On Hold, not in use at this time	4
		ALB-Baghouse	Semi-Annual	23	Outside North	24	48	JO	Mechanical			1. Check all welds and bolts. 2. Check hopper for wear. 3. Replace high-wear parts on cleaning system.	Semi Annual checks of baghouse: · Inspect every 6 months all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Maintain a written record of the inspection and any action resulting from the inspection.	11/28/2014	5/31/2014	May	WO On Hold, not in use at this time	2
		ALB-AGET Blowers/Cyclones	Semi-Annual	23	Outside North	6	12	JO	Mechanical	90E70-SP	956			7/31/2014	2/28/2015	February	Hold, not in use at this time	2
		ALB- AGET Baghouse	Quarterly	23	Outside East Alley	16	64	JO	Mechanical	FT88S101D1	104	1. Thoroughly inspect bags. 2. Check duct for dust buildup. 3. Observe damper valves for proper seating. 4. Check gaskets on all doors. 5. Inspect paint on baghouse. 6. Calibrate opacity monitor. 7. Inspect baffle plate for wear.	Quarterly checks of baghouse: · Thoroughly inspect bags for leaks and wear. (Look for obvious holes or tears in the bags.) If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Bag replacement should be documented by identifying the date, time and location of the bag in relationship to the other bags. The location should be identified on an overhead drawing of the bag layout in the baghouse. Maintain a written record of the inspection and any action resulting from the inspection.	5/20/2015	9/30/2015	September	On Hold, not in use at this time	4
		ALB- AGET Baghouse	Semi-Annual	23	Outside East Alley	24	48	JO	Mechanical	FT88S101D1	104	1. Check all welds and bolts. 2. Check hopper for wear. 3. Replace high-wear parts on cleaning system.	Semi Annual checks of baghouse: · Inspect every 6 months all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Maintain a written record of the inspection and any action resulting from the inspection.	5/20/2015	11/30/2015	November	On Hold, not is use at this time	2
AB24EXH02		ALB-New York Blowers/Cyclones	Semi-Annual	24	Outside East	6	12	JO	Mechanical	Series 20 GI Fan	R14627 100			9/10/2013	3/1/2014	March	On Hold, not is use	2

[illegible]

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
		ALB-Bag House and Cyclone	Quarterly			16	64	On Hold										
		ALB-Bag House and Cyclone	Semi-Annual			24	48	On Hold										
		ALB-York 15 Ton HVAC Unit	Semi-Annual	1	317	12	24	On Hold	Mechanical/Electrical	AP150	CLMN 24939D	1. Check and change air filters 2. Vacuum/clean all accessible areas 3. Clean and sanitize the indoor coils and condensate drain 4. Check and inspect belt and tension on the indoor blower 5. Inspect pulleys 6. Inspect electric heat controllers/contactors 7. Visually inspect heat strips if accessible 8. Power up and check blower current and verify it is less than manufacturer specs. 9. Check and verify currents/voltages	Semi annual inspection and service					
S19314		ALB-Sartorius Scale	Semi-Annual	34	100	6	12	On Hold	Mechanical	QS648	61101571	1. Wipe down 2. Ensure correct calibration 3. Check batteries if necessary	Semi annual cleaning and inspection					
F21305		ALB-Sartorius Scale	Semi-Annual	34	100	6	12	On Hold	Mechanical	QS648	61001665	1. Wipe down 2. Ensure correct calibration 3. Check batteries if necessary	Semi annual cleaning and inspection					
0087150		ALB-Precisa Scale	Semi-Annual	34	100	6	12	On Hold	Mechanical	2200 C IP65	67114	1. Wipe down 2. Ensure correct calibration 3. Check batteries if necessary	Semi annual cleaning and inspection					
85239		ALB-Mettler Scale	Semi-Annual	34	100	6	12	On Hold	Mechanical	AE 260 DeltaRange	G31964	1. Wipe down 2. Ensure correct calibration 3. Check batteries if necessary	Semi annual cleaning and inspection					
0087140		ALB-OHAUS Scale	Semi-Annual	34	100	6	12	On Hold	Mechanical	ISS	4273	1. Wipe down 2. Ensure correct calibration 3. Check batteries if necessary	Semi annual cleaning and inspection					
T2143		ALB-GSE Scale	Semi-Annual	34	100	6	12	On Hold	Mechanical	455	323546	1. Wipe down 2. Ensure correct calibration 3. Check batteries if necessary	Semi annual cleaning and inspection					
		ALB-New York Blowers/Cyclones	Semi-Annual	34	Outside East	6	12	On Hold	Mechanical	Series 20 GI Fan	Z15584 100							
		ALB-New York Blowers/Cyclones	Semi-Annual	34	Outside North	6	12	On Hold	Mechanical	Series 20 GI Fan	U12955 100							
		ALB-Baghouse	Monthly	34	Outside East	8	96	On Hold	Mechanical			1. Spot check bag-seating condition. 2. Check all moving parts on shaker baghouses. 3. Check fan for corrosion and blade wear. 4. Check all hoses and clamps. 5. Spot check for bag leaks and holes. 6. Inspect baghouse housing for corrosion.	Monthly checks of baghouse: · Check the cleaning sequence of the baghouse. · Pulse jet baghouse - check the air delivery system · Check the hopper functions and performance. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Maintain a written record of the inspection and any action resulting from the inspection.					
		ALB-Baghouse	Quarterly	34	Outside East	16	64	On Hold	Mechanical			1. Thoroughly inspect bags. 2. Check duct for dust buildup. 3. Observe damper valves for proper seating. 4. Check gaskets on all doors. 5. Inspect paint on baghouse. 6. Calibrate opacity monitor. 7. Inspect baffle plate for wear.	Quarterly checks of baghouse: · Thoroughly inspect bags for leaks and wear. (Look for obvious holes or tears in the bags.) If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight (8) hours. Bag replacement should be documented by identifying the date, time and location of the bag in relationship to the other bags. The location should be identified on an					

[illegible]





Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
		ALB-Central Room Only AC Unit	Annual (365 Days)	1	109	12	12	CP	Mechanical	GT070-4HZC	LK018705	1. Check and change air filters 2. Vacuum/clean all accessible areas 3. Clean and sanitize the indoor coils and condensate drain 4. Check and inspect belt and tension on the indoor blower 5. Inspect pulleys 6. Inspect electric heat controllers/contactors 7. Visually inspect heat strips if accessible 8. Power up and check blower current and verify it is less than manufacturer specs. 9. Check and verify currents/voltages	Electricain needed. Filters Changed - 20"x25"x1"	3/21/2012	3/21/2013		A-B: 474.3, A-L: 467, B-L: 469.5, A-GND: 272.2, B-GND; 273.3, C-GRND 269.3	
		ALB-Desktop Hood	Annual (365 Days)	1		4	4	CP						4/5/2012	4/5/2013		Micro-fiber cloth and polish needed for plexiglass front (easily scratched)	
0000031547		ALB-AirFiltronix Workstation Hood	Annual (365 Days)	1	105	4	4	CP	Mechanical	HS 4500C	41083			3/27/2012	3/27/2013		ES&H has bo survey for asbestos and radiation prior to service.	
AB05EXH01		ALB-Machine Shop Hood Exhaust Blower	Annual (365 Days)	5	101	8	8	JO	Mechanical					1/25/2010	2/24/2012			
AB05EXH01		ALB-Machine Shop Hood Exhaust Blower	Quarterly	5	101	4	16	JO	Mechanical					11/19/2010	5/27/2011			
		ALB-Hood	Semi-Annual	17	108	4	8	CP	Mechanical					3/23/2012	9/23/2012		Non-Asbestos hood w/painted surfaces. Extremely dirty.	
		ALB-Hood	Semi-Annual	17	110	4	8	CP	Mechanical					3/23/2012	9/23/2012			
		ALB-Hood	Semi-Annual	17	112	4	8	CP	Mechanical								Not serviced to to friable asbestos. On Hold: Under ES&H control. 3/23/12	
		ALB-Hood	Semi-Annual	17	115	4	8	CP	Mechanical					3/26/2012	9/26/2012			
0000035560		ALB-AirFiltronix Workstation Hood	Annual (365 Days)	17	112	4	4	CP	Mechanical	HS 4500S	41110			3/27/2012	3/27/2013		ES&H has bo survey for asbestos and radiation prior to service.	
		ALB-Hamilton Hood	Semi-Annual	27	101	4	8	CP	Mechanical	PL-183	101-1			3/26/2012	9/26/2012		Must gain access through ceiling to service pulleys.	
		ALB-Hamilton Hood	Semi-Annual	27	101	4	8	CP	Mechanical	PL-183	101-2			3/26/2012	9/26/2012		Must gain access through ceiling to service pulleys.	
		ALB-Blowers/Cyclones	Semi-Annual	27	Outside Southeast	6	12	JO	Mechanical					3/16/2012	9/12/2012		Bird Nest Removed.	
		ALB-Hood	Semi-Annual	27	1	4	8	CP	Mechanical		101-3A			HOLD			RP requests services to be postponed due to current hood use. Note-That hoods are clean and maintained by the RP. 3/13/12.	
		ALB-Hood	Semi-Annual	27	101	4	8	CP	Mechanical		101-3B			HOLD			RP requests services to be postponed due to current hood use. Note-That hoods are clean and maintained by the RP. 3/13/12.	
		ALB-Hood	Semi-Annual	27	101	4	8	CP	Mechanical					HOLD			RP requests services to be postponed due to current hood use. Note-That hoods are clean and maintained by the RP. 3/13/12.	
		ALB-Hood	Semi-Annual	27	101	4	8	CP	Mechanical					HOLD			RP requests services to be postponed due to current hood use. Note-That hoods are clean and maintained by the RP. 3/13/12.	
	B28HOOD01	ALB-Hamilton Vectaire Fume Hood	Semi-Annual	28	109	4	8	CP	Mechanical		60114 / PL 183-1			2/28/2012	8/28/2012		PPE: Safety glasses, Safety shoes, Gloves, Long Sleeves. Tools: Cleaning and neutralizing agents, pH strips, Rags, Oil can for oiling sash bearings	
	B28HOOD02	ALB-Hood	Semi-Annual	28	121	4	8	CP	Mechanical					2/22/2012	8/22/2012			
	B28HOOD03	ALB-Hood	Semi-Annual	28	122	4	8	CP	Mechanical					2/28/2012	8/28/2012			
	B28HOOD04	ALB-Kewaunee Supreme Air Hood	Semi-Annual	28	113	4	8	CP	Mechanical	LV05				2/22/2012	8/22/2012			
	B28HOOD05	ALB-Kewaunee Supreme Air Hood	Semi-Annual	28	114	4	8	CP	Mechanical	LV05				2/22/2012	8/22/2012			
0060834		ALB-Kewaunee Hood	Semi-Annual	31	101	4	8	CP	Mechanical					3/15/2012	9/15/2012			

[illegible]

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
0000011533		ALB-Thermal Dynamics Plasma Cutting System	Semi-Annual	11	101	8	16	JM	Mechanical	PAK Master 150 XL	02054678	Drain coolant, fill with distilled water, turn on main power switch and let machine run for approximately 30 minutes.	Semi annual maintenance				Used infrequently; Combine with annual PM and eliminate Semi-annual PM.	
S18580		ALB-Miller Welder	Quarterly	11	101	6	24	JM	Mechanical	Syncrowave 350 XL	LA181957	1) Visually inspect labels - replace if needed 2) Repair or replace cracked weld cables 3) Clean and tighten weld terminals 4) Inspect and adjust spark gap 5) Inspect 14-pin Cord, Gas Hose and Torch Cable, replace cracked parts	3 month service - ALWAYS DISCONNECT BEFORE MAINTAINING.					
S18580		ALB-Miller Welder	Semi-Annual	11	101	2	4	JM	Mechanical	Syncrowave 350 XL	LA181957	1) Blow out or vacuum inside machine.	6 month service - ALWAYS DISCONNECT BEFORE MAINTAINING.					
0087251		ALB-Miller Welder	Quarterly	11	101	4	16	JM	Mechanical	Aerowave	KG106731	1) Visually inspect labels - replace if needed 2) Repair or replace cracked weld cables 3) Clean and tighten weld terminals 4) Inspect and adjust spark gap 5) Inspect 14-pin Cord, Gas Hose and Torch Cable, replace cracked parts	3 Month Service - ALWAYS DISCONNECT BEFORE MAINTAINING.					
0087251		ALB-Miller Welder	Semi-Annual	11	101	4	8	JM	Mechanical	Aerowave 300	KG106731	1) Blow out or vacuum inside machine.	6 month service - ALWAYS DISCONNECT BEFORE MAINTAINING.					
		ALB-Jet Bench Grinder	Semi-Annual	11	101	2	4	JM	Mechanical	JBG-8A	04055229	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Perform visual inspection of bench grinder to ensure safe operation.				Frequency changed from semi-annual to annually due to infrequent use.	
43190		ALB-Hisey-Wolf Bench Grinder	Semi-Annual	11	101	4	8	JM	Mechanical			1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual cleaning and inspection				Frequency changed from semi-annual to annually due to infrequent use.	
		ALB-Brown-Brockmeyer Bench Grinder	Semi-Annual	11	101	4	8	JM	Mechanical	w_G_656 A	272465	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	Semi annual cleaning and inspection					
0086153		ALB-Wysong Hydraulic Shear	Semi-Annual	10	101	12	24	JM	Mechanical		1052	1. Back Gauge Stop Adjustment - Backlash 2. Back Gauge Stop Adjustments - Zeroing Dials 3. Back Stop Adjustment - Parallel 4. Blade Adjustment - Checking Clearance 5. Blade Adjustment - Procedure 6. Table Adjustment Screws 7. Blade Adjustment - Shimming 8. Blade Changing - Single End Frame Shear 9. Blade Grinding 10. Belt Adjustment 11. Brake Adjustment 12. Knife Bar Ways Adjustment - Single End Frame Shear	6 Month Maintenance  In all instances, refer to maintenance manual. Step by step instructions on pages 19 - 29, see highlighted sections.	3/19/2012	9/19/2012		Blades OK	
0086153		ALB-Wysong Hydraulic Shear	Quarterly	10	101	4	16	JM	Mechanical		1052	Refer to attached lubrication chart.	Lubrication schedule.	6/12/2012	9/12/2012		Add multi-purpose lube to guide gears on annual PM.	
0000941		ALB-Bertsch & Company Shear	Semi-Annual	11	101	20	40	JM	Mechanical		721	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection				Changed from Semi-annual to annual PM.	

Attachment 6 - Preventative Maintenance Activities -Albany

Asset ID	DB Asset No.	Asset Name	Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	WO Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
0000937		ALB-Buffer Iron Worker	Semi-Annual	11	101	12	24	JM	Mechanical		487-11451	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	Semi annual cleaning and inspection					

## Attachment 6 - Preventative Maintenance Activities - Morgantown

DESCRIPTION	BARCODE	LOCATION	MANUFACTURER	MODEL	SERIAL NUMBER	PM Tasks	INTERVAL	MAN-HOURS
CNC Lathe	A00093URS	B-19 Machine Shop	Haas	ST-30SSY	3106905	Auxiliary Filter 1. Check the aux filter gauge – 600 hours (in motion) 2. Clean the filter rubber seal and lubricate – 600 hours (in motion)	See task list	1. 1/2 hr. 2. 1 hr.
						Axes Grease/Oil Lubrication 1. Inspect the grease reservoir pressure – 50 hours (power on) 2. Inspect grease reservoir level – 200 hours (in motion) 3. Inspect lubrication tank level – 200 hours (in motion) 4. Inspect hoses for cracking – 1200 hours (power on) 5. Replace oil filter – 2400 hours (in motion) 6. Replace oil – 2400 hours (in motion) 7. Clean the oil tank – 2400 hours (in motion)	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 1/2 hr. 4. 1/2 hr. 5. 1/2 hr. 6. 1 hr. 7. 2 hr.
						Enclosure/Control Cabinet 1. Clean chips from way covers and bottom pan – 50 hours (in motion) 2. Clean and inspect windows for damage – 200 hours (in motion) 3. Inspect way covers and lubricate – 200 hours (in motion) 4. Clean vector drive air vents/filter – 200 hours (power on) 5. Perform door interlock operational check and maintenance. – 600 hours (in motion)	See task list	1. 1/2 hr. 2. 1 hr. 3. 1/2 hr. 4. 1 1/2 hr. 5. 1 hr.
						Gearbox 1. Inspect oil level – 200 hours (power on) 2. Replace oil – 2400 hours (power on)	See task list	1. 1/2 hr. 2. 2 hr.
						Hydraulics 1. Clean the coolant collector – 50 hours (in motion) 2. Inspect the oil level – 50 hours (in motion) 3. Clean chips from rotating union – 50 hours (in motion) 4. Replace the oil filter – 1200 hours (power on) 5. Inspect hoses for cracking – 1200 hours (power on)	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 1 hr. 4. 1 hr. 5. 1/2 hr.
						Main and sub-Spindle – Chuck 1. Grease the chuck jaws – 50 hours (in motion) 2. Perform chuck multi-point inspection – 2600 hours (power on)	See task list	1. 1/2 hr. 2. 2 1/2 hr.
						Pneumatics 1. Inspect gauge, regulator, auto drain filter & spindle regulator pressure – 50 hours (power on) 2. Inspect hoses for cracking – 1200 hours (power on) 3. Clean air purge solenoid – 2400 hours (power on)	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 2 hr.
						Coolant System 1. Clean filter screen in coolant tank – 50 hours (power on) 2. Inspect coolant level – 50 hours (power on) 3. Inspect coolant concentration – 50 hours (power on) 4. Clean sediment inside coolant tank – 50 hours (power on) 5. Replace coolant – 1200 hours (power on) 6. Completely clean the coolant tank – 1200 hours (power on) 7. Clean the coolant filter – 1200 hours (power on) 8. Verify coolant refill is operating correctly – 1200 hours (power on) 9. Service oil/coolant separator – 2400 hours (in motion)	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 1 hr. 4. 1 hr. 5. 2 hr. 6. 3 hr. 7. 1/2 hr. 8. 1 hr. 9. 1 hr.
						Tailstock 1. Grease the tailstock – 200 hours (in motion)	See task list	1. 1/2 hr.
						Turret 1. Run coolant and inspect coolant transfer seal for leaks – 1200 hours (in motion)	See task list	1. 1 hr.
						Automatic Tool Changer 1. Clean the chips from the tool changer – 50 hours (in motion) 2. Inspect cambox oil level – 200 hours (in motion) 3. Grease the tool changer cams – 2400 hours (in motion)	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 1 1/2 hr.
						Auxiliary Filter 1. Replace the filter bag – 600 hours (in motion) 2. Clean the filter rubber seal and lubricate – 600 hours (in motion)	See task list	1. 1/2 hr. 2. 1/2 hr.
						Axes Grease/Oil Lubrication 1. Inspect the grease reservoir pressure – 50 hours (power on) 2. Inspect grease reservoir level – 200 hours (in motion) 3. Inspect lubrication tank level – 200 hours (in motion) 4. Inspect hoses for cracking – 1200 hours (power on) 5. Replace the oil filter – 2400 hours (in motion) 6. Replace the oil – 2400 hours (in motion) 7. Clean the oil tank – 2400 hours (in motion)	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 1/2 hr. 4. 1/2 hr. 5. 1/2 hr. 6. 1 hr. 7. 4 hr.
						Counterbalance 1. Inspect the counterbalance pressure – 50 hours (in motion)	See task list	1. 1/2 hr.

## Attachment 6 - Preventative Maintenance Activities - Morgantown

DESCRIPTION	BARCODE	LOCATION	MANUFACTURER	MODEL	SERIAL NUMBER	PM Tasks	INTERVAL	MAN-HOURS
CNC Mill	A00094URS	B-19 Machine Shop	Haas	VF-3SSYT	1135598	Enclosure / Control Cabinet 1. Clean chips from way covers and bottom pan – 50 hours (in motion) 2. Clean and inspect windows for damage – 200 hours (in motion) 3. Inspect way covers and lubricate – 200 hours (in motion) 4. Clean vector drive air vents / filter – 200 hours (power on) 5. Perform door interlock operation check and maintenance – 600 hours (in motion)	See task list	1. 1 hr. 2. 1 hr. 3. 1 hr. 4. 2 hr. 5. 1 hr.
						Gearbox 1. Inspect oil level – 200 hours (power on) 2. Clean oil pump inlet screen – 1200 hours (in motion) 3. Replace oil – 2400 hours (power on)	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 2 hr.
						Minimum Quantity Lubrication 1. Clean the filter inside oil reservoir – 2400 hours (in motion)	See task list	1. 1 hr.
						Pneumatics 1. Inspect gauge, regulator, auto drain filter & spindle regulator pressure – 50 hours (power on) 2. Inspect hoses for cracking – 1200 hours (power on) 3. Clean air purge solenoid – 2400 hours (power on)	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 2 hr.
						Rotary / Trunnion 1. Clean chips from unit and apply rust preventative – 50 hours (power on) 2. Grease the pneumatic tailstock – 50 hours (in motion) 3. Grease the manual tailstock – 200 hours (in motion) 4. Inspect the oil level – 1200 hours (power on) 5. Replace the oil – 2400 hours (power on) 6. A-Axis Counterbalance Cylinder – 4800 hours (in motion)	See task list	1. 1 hr. 2. 1/2 hr. 3. 1/2 hr. 4. 1/2 hr. 5. 2 hr. 6. 4 hr.
						Spindle 1. Clean and lubricate the spindle taper – 50 hours (in motion) 2. Spindle drawbar force measurement – 2400 hours (power on)	See task list	1. 1/2 hr. 2. 2 hr.
						Coolant System 1. Clean filter screen in coolant tank – 50 hours (power on) 2. Inspect coolant level – 50 hours (power on) 3. Inspect coolant concentration – 50 hours (power on) 4. Clean sediment inside coolant tank – 50 hours (power on) 5. Replace coolant – 1200 hours (power on) 6. Completely clean the coolant tank – 1200 hours (power on) 7. Clean the coolant filter – 1200 hours (power on) 8. Verify coolant refill is operating correctly – 1200 hours (power on) 9. Service oil/coolant separator – 2400 hours (in motion)	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 1 hr. 4. 2 hr. 5. 2 hr. 6. 3 hr. 7. 1/2 hr. 8. 1 hr. 9. 1 hr.
						Tooling 1. Grease pull studs – 50 hours (in motion)	See task list	1. 1 hr.
						Wireless Intuitive Probe System 1. Check probe batteries – 1200 hours (power on) 2. Check probe calibration – 2400 hours (power on)	See task list	1. 1/2 hr. 2. 2 hr.
						Tank Maintenance 1. Wash away abrasive from equipment and work area – daily/as needed 2. Remove all garnet, sludge and slugs from the tank bottom – when these excessively accumulate 3. Inspect individual slats for wear. Replace and rotate. – monthly 4. Clean outlet water filter – monthly 5. Run tank cleaning program – as needed	See task list	1. 1 hr. 2. 2 hr. 3. 1 hr. 4. 1/2 hr. 5. 1/2 hr.
						Table Maintenance 1. Lubricate carriage components – Yearly 2. Lubricate X-axis components – Yearly 3. Lubricate the motorized Z-axis – Yearly 4. Inspect timing belts – Yearly 5. Inspect the high-pressure plumbing – Yearly 6. Rebuild the abrasivejet nozzle – As required to maintain cutting quality 7. Check Tilt-A-Jet bellows for rips & tears - Daily	See task list	1. 1 hr. 2. 1/2 hr. 3. 1/2 hr. 4. 1/2 hr. 5. 1 1/2 hr. 6. 1/2 hr.
						PC Controller Maintenance 1. Clean keyboard and mouse – as required 2. Replace air filters – Every 3 months 3. Clean monitor screen – As necessary for sharp viewing 4. Update OMAX Software – as soon as updates are released 5. Run Windows Defragmenter – Monthly 6. Replace CMOS battery in the PC Controller – As needed or 5 years	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 1/2 hr. 4. 2 hr. 5. 1 hr. 6. 1 hr.

## Attachment 6 - Preventative Maintenance Activities - Morgantown

DESCRIPTION	BARCODE	LOCATION	MANUFACTURER	MODEL	SERIAL NUMBER	PM Tasks	INTERVAL	MAN-HOURS
Waterjet Cutting Maching	A00088URS	B-19 Machine Shop	OMAX	55100	8512522	Pump Maintenance 1. Check oil & check belt tension – 50 hours 2. Change oil & check belt tension – 300 hours 3. Clean white water tank & remove debris from screen – As needed 4. Change water filters when dp>20 psig – As needed 5. Replace electrical enclosure air filters – Monthly 6. Lubricate main electric motor bearings – 6 Months 7. Install minor maintenance kit – 500 hours 8. Install major maintenance kit – 1000 hours 9. Install minor maintenance kit – 1500 hours 10. Install Overhaul kit – 2000 hours	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 1/2 hr. 4. 1/2 hr. 5. 1/2 hr. 6. 1 hr. 7. 3 hr. 8. 5 hr. 9. 3 hr. 10. 8 hr.
						Closed Water System Accessory 1. Perform visual inspection for leaks & abnormal operation – Monthly 2. Replace filters – As needed or Yearly 3. Clean tank from debris – 6 Months 4. Remove rust and paint – 2 years 5. Clean air filter on chiller – 6 Months	See task list	1. 1/2 hr. 2. 1/2 hr. 3. 1/2 hr. 4. 8 hr. 5. 1/2 hr.
						RO Water System 1. Fill tank with salt – Monthly 2. Replace membranes – 2 Years 3. Replace sensor – 2 Years	See task list	1. 1/2 hr. 2. 2 hr. 3. 1 hr.
						Garnet Hopper & feed system 1. Visually inspect hoppers, convey line for kinks or abrasion & air supply equipment – Monthly 2. Remove garnet and clean inside hopper – Yearly	See task list	1. 1/2 hr. 2. 2 hr.
Press Brake	220801	B-19 Machine Shop	Accurpress	713010	3939	Clean exterior of dust and debris	Monthly	1/2 hr.
						Visually inspect hoses and surfaces for wear/deterioration	6 Months	1/2 hr.
						Lubricate mechanical moving parts	Yearly	1/2 hr.
						Check hydraulic fluid	Weekly	1/2 hr.
						Replace hydraulic fluid filter	Yearly	1/2 hr.
						Replace hydraulic fluid	5 Years	1 hr.
Metal Shear	223123	B-19 Machine Shop	Accurshear	625010	2648	Clean exterior of dust and debris	Monthly	1/2 hr.
						Visually inspect hoses and surfaces for wear/deterioration	6 Months	1/2 hr.
						Perform functional test	6 Months	1/2 hr.
						Lubricate moving parts	Yearly	1/2 hr.
						Check hydraulic fluid	Weekly	1/2 hr.
						Replace hydraulic fluid filter	Yearly	1/2 hr.
Band Saw	2475	B-19 Machine Shop	Hydmech	VW18	WA09124138	Replace hydraulic fluid	5 Years	2 hr.
						Visually inspect and clean surface of debris, dust, etc.	3 Months	1/2 hr.
						Check blade tracking & adjust drive/idler wheels if needed	6 Months	1 1/2 hr.
						Replace blade brush	Yearly	1/2 hr.
						Adjust blade guides	6 Months	1/2 hr.
						Check oil level and pressure	Monthly	1/2 hr.
Machine Milling	148976	B-19 Machine Shop	Bridgeport Corporation	1-180-0171	2J128566-2	Check gearbox oil and change if necessary	Yearly	1/2 hr.
						Provide grease to guide arm, vise ways and linear bearings	Yearly	1/2 hr.
						Functionally test operation	6 Months	1/2 hr.
						Visually inspect and clean surface of debris, dust, etc.	3 Months	1/2 hr.
						Lubricate table, knee, saddle, way surfaces, milling heads & other movable parts	6 Months	1/2 hr.
						Replace head drive belt	2 Yr.	2 hr.
Lathe Straight Bed	155332	B-19 Machine Shop	Clausing / Colchester	CLOCHESTER-15	6-0055-36332	Replace head timing belt	2 Yr.	2 hr.
						Replace head/spindle brake shoes	2 Yr.	4 hr.
						Check operation of feed trip assembly	Yearly	1/2 hr.
						Replace balance spring	Yearly	1/2 hr.
						Replace collet aligning screw	Yearly	1/2 hr.
						Adjust Glb Strip	Yearly	1/2 hr.
Drill Press, Radial	222423	B-19 Machine Shop	Wilton Tools	1230R	13573	Adjust backlash of table screw	Yearly	1/2 hr.
						Adjust backlash of cross screw assembly	Yearly	1/2 hr.
						Check level and operation of coolant spray system	3 Months	1/2 hr.
						Check oil, replace filter	3 Months	1/2 hr.
						Visually inspect and clean surface of debris, dust, etc.	3 Months	1/2 hr.
						Check lathe alignment via headstock and tailstock checks	Yearly	1 hr.
						Clean & lubricate gear train	Yearly	1/2 hr.
						Check drive belt tension & adjust if needed	Yearly	1 hr.
						Check drive clutches and adjust if necessary	Yearly	1 hr.
						Check backlash in cross slide & adjust if necessary	Yearly	1 hr.
						Check lubrication system and change oil	Yearly	2 hr.
						Clean and lubricate Apron, Slideways & other oiler points	Yearly	2 hr.
						Perform functional test	Yearly	1/2 hr.
						Visually inspect and clean surface of debris, dust, etc.	3 Months	1/2 hr.
						Lubricate top and bottom of arm at column	3 Months	1/2 hr.
						Lubricate top and right side of drill head	3 Months	1/2 hr.
						Lubricate arm raising worm gear	3 Months	1/2 hr.
						Check oil	3 Months	1/2 hr.
						Check coolant	3 Months	1/2 hr.
						Lubricate rack and quill	3 Months	1/2 hr.
						Visually inspect and clean surface of debris, dust, etc.	3 Months	1/2 hr.
						Lubricate table, knee, saddle, way surfaces, milling heads & other movable parts	6 Months	1/2 hr.
						Replace head drive belt	2 Yr.	2 hr.

Attachment 6 - Preventative Maintenance Activities - Morgantown

DESCRIPTION	BARCODE	LOCATION	MANUFACTURER	MODEL	SERIAL NUMBER	PM Tasks	INTERVAL	MAN-HOURS
Machine Milling	222669	B-19 Machine Shop	Bridgeport Corporation	SERIES	162245	Replace head timing belt	2 Yr.	2 hr.
						Replace head/spindle brake shoes	2 Yr.	4 hr.
						Check operation of feed trip assembly	Yearly	1/2 hr.
						Replace balance spring	Yearly	1/2 hr.
						Replace collet aligning screw	Yearly	1/2 hr.
						Adjust Gib Strip	Yearly	1/2 hr.
						Adjust backlash of table screw	Yearly	1/2 hr.
						Adjust backlash of cross screw assembly	Yearly	1/2 hr.
						Check level and operation of coolant spray system	3 Months	1/2 hr.
						Check oil, replace filter	3 Months	1/2 hr.
						Visually inspect and clean surface of debris, dust, etc.	3 Months	1/2 hr.
Lathe, 21" Gap Bed	223314	B-19 Machine Shop	Clausing / Colchester	MASTIFFGH	MF0065	Check lathe alignment via headstock and tailstock checks	Yearly	1 hr.
						Clean & lubricate gear train	Yearly	1/2 hr.
						Check drive belt tension & adjust if needed	Yearly	1 hr.
						Check drive clutches and adjust if necessary	Yearly	1 hr.
						Check backlash in cross slide & adjust if necessary	Yearly	1 hr.
						Check lubrication system and change oil	Yearly	2 hr.
						Clean and lubricate Apron, Slideways & other oiler points	Yearly	2 hr.
						Perform functional test	Yearly	1/2 hr.
						Visually inspect and clean surface of debris, dust, etc.	3 Months	1/2 hr.
						Lubricate table, knee, saddle, way surfaces, milling heads & other movable parts	6 Months	1/2 hr.
						Replace head drive belt	2 Yr.	2 hr.
Machine Ez-Track Vertical Milling	C4150	B-19 Machine Shop	Bridgeport Corporation	EZ-TRAK II	172962	Replace head timing belt	2 Yr.	2 hr.
						Replace head/spindle brake shoes	2 Yr.	4 hr.
						Check operation of feed trip assembly	Yearly	1/2 hr.
						Replace balance spring	Yearly	1/2 hr.
						Replace collet aligning screw	Yearly	1/2 hr.
						Adjust Gib Strip	Yearly	1/2 hr.
						Adjust backlash of table screw	Yearly	1/2 hr.
						Adjust backlash of cross screw assembly	Yearly	1/2 hr.
						Check level and operation of coolant spray system	3 Months	1/2 hr.
						Check oil, replace filter	3 Months	1/2 hr.
						Visually inspect and clean surface of debris. Empty draw tray of chips	Monthly	1/2 hr.
Pipe threader	C5016	B-19 Machine Shop	Ridgid Tool Company	1224	EB19500K00	Lubricate all exposed moving parts( such as carriage rails, cutter wheels, feed screw, jaw inserts and pivot points) with light oil	3 Months	1/2 hr.
						Clean oil screen filter	3 Months	1/2 hr.
						Inspect cutter wheel & replace if needed	3 Months	1 hr.
						Inspect jaw inserts & replace if needed	3 Months	1 hr.
						Check V-belt tension & replace if needed	3 Months	2 hr.
Welder Tig	12023	B-19 Machine Shop	Lincoln Electric	355	U1000209920	Visually inspect and clean surface of debris. Blow out dust from inside the machine with low pressure air.	3 Months	1/2 hr.
						Inspect the output terminals and control cables for fraying and bare spots, replace if necessary	3 Months	1/2 hr.
						Inspect the spark gap spacing, replace electrodes if necessary	3 Months	1/2 hr.
Welder/Generator	18414	B-19 Machine Shop	Miller Electric	BOBCAT-250NT	LCS14361	Visually inspect and clean surface of debris. Blow out dust from inside the machine with low pressure air.	3 Months	1/2 hr.
						Check fuel and oil level	3 Months	1/2 hr.
						Clean spark arrestor	Yearly	1/2 hr.
						Clean air cleaner wrapper	6 Months	1/2 hr.
						Clean weld terminals	Yearly	1/2 hr.
						Clean battery terminals	Yearly	1/2 hr.
						Check spark plug gap	Yearly	1/2 hr.
						Change Oil & Filter	Yearly	1/2 hr.
						Change fuel filter	Yearly	1/2 hr.
						Check welding cables & brushes	6 Months	1/2 hr.
						Change slip rings	3 Months	1/2 hr.
Tool Plasma Arc Cutting & Gouging System	43681	B-19 Machine Shop	Hypertherm	POWERMAX 1650	1650-027033	Visually inspect and clean surface of debris.	3 Months	1/2 hr.
						Check consumables for wear and proper installation	6 Months	1/2 hr.
						Check torch cap-on safety switch, trigger, power cord, pressure hose, air filter and torch body for cracks or exposed wires	6 Months	1/2 hr.
						Clean the inside of the power supply with vacuum	Yearly	1 hr.
Welder Migweld	65938	B-19 Machine Shop	AirCo	25DTR-224B-SM	P351879	Visually inspect and clean surface of debris. Blow out dust from inside the machine with low pressure air or vacuum.	3 Months	1/2 hr.
						Inspect the output terminals and control cables for fraying and bare spots, replace if necessary	3 Months	1/2 hr.
						Clean and observe wire feed and purge gas supply	3 Months	1/2 hr.
Welder Electric	222522	B-19 Machine Shop	Lincoln Electric	POWER	U1961204263	Visually inspect and clean surface of debris. Blow out dust from inside the machine with low pressure air or vacuum.	3 Months	1/2 hr.
						Inspect the output terminals and control cables for fraying and bare spots, replace if necessary	3 Months	1/2 hr.
						Replace electrodes if necessary	3 Months	1/2 hr.
Welder Electric	C4118	B-19 Machine Shop	Lincoln Electric	355	U101400860	Visually inspect and clean surface of debris. Blow out dust from inside the machine with low pressure air.	3 Months	1/2 hr.
						Inspect the output terminals and control cables for fraying and bare spots, replace if necessary	3 Months	1/2 hr.
						Inspect the spark gap spacing, replace electrodes if necessary	3 Months	1/2 hr.
						Check coolan level, clean heat exchanger	3 Months	1/2 hr.
Press Drill, 20"	152706	B-19 Machine Shop	Clausing Corporation	2277	526477	Lubricate variable drive via hole in fork	Monthly	1/2 hr.
						Oil post and rod	6 Months	1/2 hr.
						Clean and grease handwheel cam	Yearly	1 hr.
						Check drive belts for tension & good condition, replace if necessary	Yearly	2 hr.
						Check & adjust spindle end play if necessary	6 Months	1/2 hr.
Drill Press Precision	221440	B-19 Machine Shop	Servo Motor of Taiwan	7000	9757	Inspect drive belt and replace if needed	3 Months	1/2 hr.
						Visually inspect and clean surface of debris, dust, oil, etc.	6 Months	1/2 hr.



Attachment 6 - Preventative Maintenance Activities - Morgantown

DESCRIPTION	BARCODE	LOCATION	MANUFACTURER	MODEL	SERIAL NUMBER	PM Tasks	INTERVAL	MAN-HOURS
Universal Iron Bender	104232	B-19 Machine Shop	Hossfeld Universal Benders	WRENCHLESS SIZE 2	B-17633	Lubricate/grease moving parts	Yearly	1/2 hr.
						Functional test, look for noisy bearings/odd sounds	Yearly	1/2 hr.
English Wheel	GFP00191URS	B-19 Machine Shop	Jet	WH-45T-45"	14070011	Visually inspect and clean surface of debris, dust, oil, etc.	6 Months	1/2 hr.
						Lubricate wheel brackets, jack screw, upper wheel axle, cams and pivot points	Yearly	1 hr.
Machine Shop Electrical Disconnects	NA	B-19 Machine Shop	Varies	Varies	NA	Visually and functionally inspect local disconnects in Machine Shop	Yearly	8 hr.
						Perform visual inspection and look for leaks, wipe down machine	Monthly	1/2 hr.
B-4 RO Water system	491	B-4 Room 112	Labconco	Water Pro RO System	60554977	Change air vent filter	3 Months	1/2 hr.
						Disinfect Unit	Yearly	2 hr.
						Replace RO membrane if normalized flow rate has decreased by 20% or more	2 Years	1 hr.
						Install new prefilter and carbon/prefilter	3 Months	1/2 hr.
B-4 DI Water system	492	B-4 Room 112	Labconco	Water Pro Plus DI System	60657362	Perform visual inspection and look for leaks, wipe down machine	Monthly	1/2 hr.
						Sanitize machine	Yearly	2 hr.
						Replace cartridges	Yearly	1/2 hr.
						Replace UV lamp	Yearly	1 hr.
B-25 Water system	25215	B-25 Room 115	Millipore	Direct Q5	NA	Perform visual inspection and look for leaks, wipe down machine	Monthly	1/2 hr.
						C12 cleaning of RO cartridge	or Yearly	1 hr.
						pH cleaning of RO cartridge	or Yearly	1 hr.
						Clean screen filter	6 Months	1/2 hr.
						Replace Progard Pack - when prompted by LCD message	or Yearly	1/2 hr.
						Replace Quantum Cartridge - when prompted by LCD message	or Yearly	1/2 hr.
						Replace Reservoir Vent Filter - when prompted by LCD message	or Yearly	1/2 hr.
						Replace Millipak Final Filter - when prompted by LCD message	or Yearly	1/2 hr.
B-17 Water System	A00059URS	B-17 Room 13	Millipore	Milli-Q Integral 3/5/10/15	F5HA14775 A	Perform visual inspection and look for leaks, wipe down machine	Monthly	1/2 hr.
						Clean inlet strainer - when prompted by LCD message	or Yearly	1/2 hr.
						Clean A10 TOC Monitor - when Quantum cartridge installed or TOC values fluctuate	or Yearly	1/2 hr.
						C12 cleaning of RO cartridge	Monthly	1 hr.
						pH cleaning of RO cartridge	Monthly	1 hr.
						Clean entire system	Yearly	4 hr.
						Replace Progard Pack - when prompted by LCD message	or Yearly	1/2 hr.
						Replace Quantum Cartridge - when prompted by LCD message	or Yearly	1/2 hr.
						Replace POD Pack - when prompted by LCD message	or Yearly	1/2 hr.
						Replace Reservoir Vent Filter - when prompted by LCD message	or Yearly	1/2 hr.
						Replace UV 185nm Lamp - when prompted by LCD message	or Yearly	1 hr.
						Replace UV 254nm Lamp - when prompted by LCD message	or Yearly	1 hr.
						Replace A10 TOC Monitor Lamp - when prompted by LCD message	or Yearly	1 hr.

## Attachment 6 - Preventative Maintenance Activities - Pittsburgh

Asset ID	DB Asset No.	Asset Name	Task Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
0000002651		UPS - Surface Scanner	Annual	83	341	8	16	Stoneking	Electrical	GXT4-8000-RT-208	1400501457BW0F3	1. Blow out unit with air to remove debris build up 2. Tighten connections 3. Verify correct voltages 4. Visual inspection of primary and secondary conductors 5. Visual inspection of coils 6. Visual inspection of exterior case	8/17/2017	9/17/2018	September	Schedule outage required	1
GFP00245URS		UPS - ICP#1	Annual	83	242	4	8	Haakensen	Electrical	GXT4-5000-RT-208	1530901310BW923	1. Blow out unit with air to remove debris build up 2. Tighten connections 3. Verify correct voltages 4. Visual inspection of primary and secondary conductors 5. Visual inspection of coils 6. Visual inspection of exterior case	8/24/2017	9/24/2018	September	Schedule outage required	1
GFP00246URS		UPS - ICP#2	Annual	83	242	4	8	Stoneking	Electrical	GXT4-5000-RT-208	1609600644BY913	1. Blow out unit with air to remove debris build up 2. Tighten connections 3. Verify correct voltages 4. Visual inspection of primary and secondary conductors 5. Visual inspection of coils 6. Visual inspection of exterior case	New	10/18/2018	October	Schedule outage required	1
GFP00247URS		UPS-ICP/OES#1	Annual	83	242	4	4	Haakensen	Electrical	GXT4-5000-RT-208	1612600496BY913	1. Blow out unit with air to remove debris build up 2. Tighten connections 3. Verify correct voltages 4. Visual inspection of primary and secondary conductors 5. Visual inspection of coils 6. Visual inspection of exterior case	6/10/2017	6/1/2018	June	Schedule outage required	1
GFP00462URS		UPS-ICP/OES#2	Annual	83	242	4	4	Haakensen	Electrical	TX90-10K	TX99160500003	1. Blow out unit with air to remove debris build up 2. Tighten connections 3. Verify correct voltages 4. Visual inspection of primary and secondary conductors 5. Visual inspection of coils 6. Visual inspection of exterior case	6/10/2017	6/2/2018	June	Schedule outage required	1
GFP00244URS		UPS-CHNS/O	Annual	83	242	2	2	Haakensen	Electrical	GXT4-2000RT120	1530900229AFB83	1. Blow out unit with air to remove debris build up 2. Tighten connections 3. Verify correct voltages 4. Visual inspection of primary and secondary conductors 5. Visual inspection of coils 6. Visual inspection of exterior case	12/1/2016	12/5/2017	December	Schedule outage required	1
		UPS-SEM	Annual	84	119	4	8	Haakensen	Electrical	LP8-111J	1081U18/0849A001	1. Blow out unit with air to remove debris build up 2. Tighten connections 3. Verify correct voltages 4. Visual inspection of primary and secondary conductors 5. Visual inspection of coils 6. Visual inspection of exterior case	11/10/2016	11/8/2017	November	Schedule outage required	1
		UPS-Surface Scanner	Annual	84	118	4	4	Haakensen	Electrical	NXB15	381916	Inspect and clean the unit. Inspect and record the Alarm and Inverter Logs. Check the batteries. Check the AC and DC meter functions and recalibrate if necessary. Perform an outage test. Check the values of the first 19 parameters while the UPS is on line and on battery.	6/1/2017	5/4/2018	May	Schedule outage required. Battery Changed requested	1
0000002677		Bridgepor Milling Machine	Semi-Annual	86	112	2	2	Midla	Mechanical	J-1	J60559	1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	New	3/18/2018	March		2
S11500		Bench Grinder-Rockwell	Semi-Annual	86	112	2	2	Stile	Mechanical	23-137	G10-79-4	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no grooves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	7/17/2017	1/10/2018	January		2
A00123URS		Monarch Lathe	Semi-Annual	86	112	8	8	Midla	Mechanical	10X30CD	46943	1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	New	3/18/2018	March		2

## Attachment 6 - Preventative Maintenance Activities - Pittsburgh

Asset ID	DB Asset No.	Asset Name	Task Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
0000010830		Hydraulic Press	Semi-Annual	86	112	4	8	Stile	Mechanical	F-25-DA	201376	1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	6/18/2017	1/10/2018	January		2
C4140		Drill Press	Semi-Annual	86	112	4	4	Stile	Mechanical	2025	80548	1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	7/5/2017	2/3/2018	February		2
S11508		Verticle Bandsaw Rockwell	Semi-Annual	86	112	4	4	Midla	Mechanical	28-325	1664323	1. Preventative Maintenance 2. Butt Welder 3. Drive Motor 4. Lubrication	5/25/2017	12/15/2017	December		2
C4610		Horizontal Bandsaw Wilton	Semi-Annual	86	112	4	4	Midla	Mechanical	5634001	9124948	1. Preventative Maintenance 2. Butt Welder 3. Drive Motor 4. Lubrication	5/30/2017	12/30/2017	December		2
C4137		Geka Iron Worker	Annual	86	112	2	2	Midla	Mechanical	80A	11101	*No Operating Manual Found* 1. Wipe Down Machine 2. Check for any visual signs of wear 3. Remove any excess debris	5/28/2017	6/4/2018	June		1
C4173		Lincoln Square-Wave Welder	Annual	86	112	8	8	Stile	Mechanical	K1415-1	K1828-1 10808	1) Blow out or vacuum inside machine. 2) Visually inspect labels - replace if needed 3) Repair or replace cracked weld cables 4) Clean and tighten weld terminals 5) Inspect and adjust spark gap 6) Inspect 14-pin Cord, Gas Hose and Torch Cable, replace cracked parts	1/10/2017	1/20/2018	January		1
A00131URS		LECO Wet Saw	Semi-Annual	86	112	4	4	Stile	Mechanical	MSX305A1	826-350-110	Refer to Manufacturers Maintenance Manual	New	8/25/2018	August		2
C3782		Hydraulic Shear	Annual	86	112	24	24	Midla	Mechanical	375RG	510830	1. Wipe Down Machine 2. Check for any visual signs of wear 3. Check for grease points on machinery and grease accordingly 4. Check for worn belts and belt tension and replace if necessary 5. Listen for irregular noises and check for bearing squeal, replace bearings if needed. 6. Remove any excess debris	2/15/2017	3/18/2018	March		1
S4652		Dayton Grinder	Monthly	86	112	2	2	Stile	Mechanical	12853M	604479MD903	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	8/28/2017	9/30/2017	Monthly		12
GFP00264URS		Tungsten Electrode Grinder	Monthly	86	112	2	2	Stile	Mechanical	TSS-1	10126	1) Visually inspect tool rest to ensure gap is 1/16" off the grinding wheel. 2) Visually inspect sides of grinding wheel, make sure there are no groves. 3) Inspect grinding wheel for chips or cracks. 4) Inspect to make sure all guards are in place and secure. 5) Wipe down machine.	8/28/2017	9/30/2017	Monthly		12
A00111URS		Millipore Direct 8, and Water Storage Tank	Daily	83	242	2	104	Schellhaas	Mechanical	Direct 8	F5JA174268	Refer to Mill-Pore manual.				Weekly checklist on record	365
		Millipore Mill-Q Water De-ionize	Daily	84	217	2	104	Schellhaas	Mechanical	ZMO56000Y	F9CM66899C	Refer to Mill-Q manual.				Weekly checklist on record	365
		Barnstead NanoPure II	Daily	83	239	3	156	Schellhaas	Mechanical	7119	476484-379	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Scientific Water De-ionized System	Daily	83	332	2	104	Schellhaas	Mechanical	7135	430156-123	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Milli-Pore Advantage-10, and Water Storage Tank	Daily	84	321	2	104	Schellhaas	Mechanical	Advantage-10	F4DA57743B	Refer to Milli-Pore Advantage-10 manual.				Weekly checklist on record	365
		Mega-Pure Distiller	Daily	84	218	2	104	Schellhaas	Mechanical	MP-6A	000800	Refer to Mega-Pure manual.				Weekly checklist on record	365
		Milli-Pore RIOS-100 De-ionizer, and Water Storage Tank	Daily	84	218	2	104	Schellhaas	Mechanical	F5MNR2840C	F5MNR2840C	Refer to Mill-200 manual.				Weekly checklist on record	365
		Ductless Hood	Daily	83	242	1	1	Schellhaas	Mechanical	Air Clean	AC710C-1423	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	84	218	2	2	Schellhaas	Mechanical	Air Clean	AC632TAS-3913	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	84	218	2	2	Schellhaas	Mechanical	Air Clean	AC648TAS-3919	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	84	218	2	2	Schellhaas	Mechanical	Air Clean	AC643LFC-40935	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	84	216	1	1	Schellhaas	Mechanical	Air Clean	AC632TAS-4011	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	84	217	1	1	Schellhaas	Mechanical	Labconco	201007	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365

Attachment 6 - Preventative Maintenance Activities - Pittsburgh

Asset ID	DB Asset No.	Asset Name	Task Frequency	Bldg	Room	Estimated Labor Hours	Total Estimated Labor Hours	Assigned Technician	Trade Name	Model No.	Serial No.	Step Description	Last Completion Date	Next Due	Month Due	Comment	Task Frequency Count
		Ductless Hood	Daily	84	217	1	1	Schellhaas	Mechanical	Labconco	203072	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	84	221	1	1	Schellhaas	Mechanical	Air Clean	AC648FJVC-46425	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	84	223	1	1	Schellhaas	Mechanical	Air Clean	AC632TAS-3921	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	84	122	2	2	Schellhaas	Mechanical	Air Clean	AC632TAS-3903	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	84	122	2	2	Schellhaas	Mechanical	Air Clean	AC632TAS-3899	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	94	419	1	1	Schellhaas	Mechanical	Air Clean	120660009	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Ductless Hood	Daily	94	1	1	1	Schellhaas	Mechanical	Air Clean	141099113	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		SPX Tennt Environmental Chamber	Daily	84	120	1	1	Schellhaas	Mechanical	Air Clean	26450-05	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		SPX Tennt Environmental Chamber	Daily	84	120	1	1	Schellhaas	Mechanical	Air Clean	26760	Refer to Manual, for Maintenance & cleaning procedures				Weekly checklist on record	365
		Gas Cylinder Cabinets	Annual	Research	Labs	1	1	Ditillo	Mechanical	Matheson		1. Clean air inlet filters 2. Check door operation 3. Check for signs of wear				Inlet filters checked durring cylinder installation	12
		Gas Cylinder outside Pads and Associated Distributing Tubing	Weekly	Plateau	Outside	2	8	Ditillo	Mechanical			1. Clean debri from floor area 2. Check chain tie-down straps on cylinders 3. Visual check gas regulators for leakage				Tubing connection leak tested with each cylinder exchange	52