PREVENTATIVE MAINTENANCE PROJECT

prepared for

County of Sacramento Department of General Services
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1. Executive Summary

Purpose

In fall of 2025, Bureau Veritas (BV) performed a Facility Condition Assessment (FCA) for Rio Cosumnes Correctional Center. Based on data collected during the Facility Condition Assessment, an inventory of facilities equipment was developed. This inventory included equipment of significant value and importance and with recurring maintenance requirements.

The purpose of this report is to provide an assessment of the current maintenance efforts as compared to industry standards and to define the recurring maintenance activities required to ensure the Rio Cosumnes Correctional Center facilities equipment is maintained in safe, reliable, and efficient condition. This includes identifying the specific maintenance tasks and frequency of each task for each type of equipment observed at the facility.

In addition to providing a baseline assessment of the maintenance procedures the scope of this report includes an analysis of the resource and staffing requirements for a period of 10-years under varying conditions of asset replacement. For the purpose of this review we have analyzed three scenarios:

- Baseline: Assumes no significant renovation or new construction, an 'As-Is' situation.
- Scenario 1: Assumes that significant system and equipment replacement takes place and the State of Good Repair recommendations in the FCA report are accomplished in the next few years.
- Scenario 2: Assumes significant replacement of the existing buildings with new structures.

The report contains maintenance work hour estimates and staffing recommendations for all three of the above situations over the next 10-years.

During our assessment of the facility, BV reviewed existing maintenance policies and practices along with a review of work order history and other maintenance records.

Summary of Findings

The Main Jail construction was completed in 1989. The FCA identified that of the 534 individual building materials in the assessment 299 (56%) have exceeded their expected useful life (EUL). This percentage of older materials is way above industry standards and contributes to the need for additional maintenance work to keep the facility operating.

The review of work orders over the last two years shows an excessive amount of plumbing and door work orders. The FCA report identifies that the sliding and security doors are an older narrower style. The FCA recommends that a newer style of door that is thicker be installed. If installed, the newer material will reduce the maintenance work orders for doors. The same is true of the electrical system that has many of the original transformers and electrical panels. Those units have exceeded their expected useful life and their age is causing a need for increased maintenance.

The preventative maintenance staffing calculations are for routine work that should be accomplished on a regular schedule. This work is quantifiable and represents a starting point for establishing an overall maintenance staffing level for the facility. These estimates do not include the time spent replacing materials that have broken or have been damaged by the building occupants. There are also times when the maintenance staff is used to replace building materials that could also be called Capital Improvements.

The table on the next page includes the total number of estimated maintenance hours and then includes the hours needed for repairs and other staff overhead time such as training and vacation.

The total estimated hours for preventative and routine maintenance for the facility in its current configuration is 12,395 hours per year. This is the Baseline amount of hours. When the hours for repairs and other work is added to the calculation just under 19 Full Time Equivalent (FTE) staff is required. The staff will also need to be allocated over a 24-hour period as the facility operates on a 24/7 basis.

SCENARIO COMPARISON (10-YEAR) AND WHAT DRIVES IT IN THIS BUILDING								
Scenario	**FTE — Year 1**	**FTE — Year 5**	**FTE — Year 10**	**Total Hours — 10 Years**	**FTE-Years — 10 Years**	**Hours Saved vs AS IS**	**FTE-Years Saved vs AS IS**	**% Hours Saved vs AS IS**
As Is	18.95	20.34	22.88	366,060	207.05	0	0.00	0.0%
Scenario 1 - State of Good Repair	16.53	17.92	20.46	323,220	182.82	42,840	24.23	11.7%
Scenario 2 – New Building	13.32	14.63	17.06	264,846	149.80	101,214	57.25	27.6%

It is beyond the scope of this report to prepare a complete prioritization schedule for all the preventative maintenance work. However, industry standards recommend priority be given to work on the life-safety and security systems. The next highest priority is the HVAC systems to prevent premature failure of the heating and cooling equipment. Finally, those systems with no backup or multiple similar pieces of equipment should be maintained in as good a condition as possible.

2. Methodology

2.1 Equipment Inventory

Based on data collected during the Facility Condition Assessment, an inventory of facilities equipment was developed. This inventory included equipment of significant value and importance and with recurring maintenance requirements. The inventory included equipment from the following building systems:

- Conveying
- Electrical
- Exterior Enclosure
- Fire Protection
- Food Service
- HVAC
- Interior Construction
- Landscaping
- Laundry
- Life Safety
- Plumbing

A complete list of the equipment can be found in Section 7 of this report.

2.2 Preventive Maintenance Schedules

BV maintains a library of preventive maintenance schedules for common facilities equipment based on manufacturers' recommendations, code requirements and best practices. The preventive maintenance schedules contain the specific maintenance tasks and frequencies for each type of equipment. The schedules that apply to the equipment in the equipment inventory, developed as part of this project, are included in Section 6 of this report.

The scheduled preventive maintenance (PM) program hours are set by the equipment PM schedules — asset count and task frequency. New equipment is maintained on the same manufacturer frequencies as old equipment, so PM hours are held at the baseline in every scenario and every year. What changes between scenarios, and as assets age, is the unscheduled REPAIR load that sits on top of the PM program.

In the Baseline, Repairs take the same share of productive time as PM (37% and 37%), i.e. repair hours equal PM hours. Each class of asset carries a Repair Ratio (repair hours per PM hour) for each year of each scenario. Total Maint Hours for a class = PM hrs × (1 + Repair Ratio + 0.4324 + 0.2703), where 0.4324 and 0.2703 hold 'Other' and 'Travel' at their Baseline proportions to PM (16/37 and 10/37).

Scenarios 1 and 2 reduce the repair hours based on the amount of material and system replacement.

In the 10-year future projections the Repair Activity hours increase as the facility ages while the preventative maintenance, other and Travel hours remain the same. We also keep the number actual work hours per staff member constant and do not project any increase in vacation or training time.

3. Equipment Preventive Maintenance Labor Requirements

BVNA includes estimated labor hours in each preventative maintenance (PM) schedule to provide a summary of estimated labor requirements.

3.1 Basis for Bureau Veritas Labor Estimates

BVNA Corp. has a division that has been providing contract building maintenance and operations services to governmental agencies for over 25 years. BVNA uses labor hour estimates for PM tasks that are based on its experience and verified against such standards as RS Means, Whitestone Research, and GSA-published estimates.

3.2 Travel Time

BVNA The estimated number of FTE required for each craft is shown below in Table 4 (*Table 4-Estimated Full-Time Employees Required).*

Labor estimates are based on the presumption that the maintenance staff is located at the same location where the work is being done. Travel time, other than accounting for a short walk to the work location, is not accounted for in BVNA's estimates. Depending on how the client intends to staff the maintenance shop, travel times may need to be added into the labor estimates.

3.3 Baseline Preventive Maintenance Labor Estimate Summary

Table 1, below, includes a summary of the annual estimated labor requirements to complete the PM tasks included in the Preventive Maintenance Program developed by BVNA for the Sacramento County Main Jail.

Equipment Classification	Annual Estimated Labor Hours for Preventive Maintenance (Travel Time Not Included)
Conveying	546
Electrical	777
Exterior Enclosure	33
Fire Protection	399
Food Service	168
HVAC	3233
Interior Construction	6,638
Landscaping	12
Laundry	46
Life Safety	162
Plumbing	381
Total	**12,395**

3.4 Baseline Maintenance Staff Estimates

BVNA is able to estimate the required staffing levels for facilities maintenance personnel based on the annual estimated labor hours for preventive maintenance. The staffing estimate would include the total number of Full-Time Employees (FTE) required for each craft to complete all facilities maintenance (repairs and preventive maintenance) as well as non-maintenance activities typically performed by facilities maintenance personnel, room setup and contractor escort.

The total productive labor hours available for each employee were estimated to be 1,768 per year, as shown below in Table B.

Table A - Available Productive Hours Per Full-Time Employee	
Total Hours Per Year	2,080
Vacation Hours	120
Sick Hours	40
Training Hours	40
Holiday Hours	112
Available Productive Hours Per FTE	**1,768**

The percentages of productive hours that maintenance staff would spend performing different activities were then estimated based on industry experience. These estimates are shown below in Table 3.

Table B - Distribution of Productive Hours	%
Preventive Maintenance	37
Repairs	37
Other (Trash Removal, Room Setup, etc.)	16
Travel	10
Total	**100**

The number of FTE required for each craft was calculated using the following formula:

$$FTE = \frac{(Estimated\ PM\ Labor\ Hours)}{((\%\ Productive\ Hours\ for\ PM)\ /\ 100)(Available\ Productive\ Hours)}$$

As an example, the number of FTE for HVAC is calculated as follows:

$$[\![FTE]\!]_{_HVAC} = \frac{(\ 3233\ \ Hours)}{(37\ /\ 100)(1{,}776\ Hours/FTE)}$$

$$[\![FTE]\!]_{_HVAC} = 4.94$$

The estimated number of FTE required for each craft is shown below.

Table C - Estimated Full-Time Employees Required For Maintenance	
Craft	Full-Time Employees
Conveying	0.84
Electrical	1.19
Exterior Enclosure	0.05
Fire Protection	0.61
Food Service	0.26
HVAC	4.94
Interior Construction	0.58
Landscaping	0.02
Laundry	0.07
Life Safety	0.25
Plumbing	0.22
Total	**18.95**

The above establishes the baseline for staffing the facility.

The scheduled preventive maintenance (PM) program (Table C) is set by the equipment PM schedules — asset count and task frequency. Estimated at 12,395 hours. New equipment is maintained on the same manufacturer frequencies as old equipment, so PM hours are held at the baseline in every scenario and every year. What changes between scenarios, and as assets age, is the unscheduled REPAIR load that sits on top of the PM program.

For Scenario 1 the replacement of equipment and systems will reduce the amount of time spent by the maintenance staff on repairs. For Secnario 1 the amout of repair hours reduces to 8,111.

For Scenario 2 the replacement of equipment and systems will reduce the amount of time spent by the maintenance staff on repairs. For Secnario 2 the amout of hours reduces to 2,441.

For the tables starting in the next section we have also adjusted the hours and staffing to extend over a 10-year period. This allows the reader to see the effect of time on the maintenance staffing. In all cases the amount of staffing will increase over time. However, since Scenarios 1 and 2 start with a lower staffing need their staffing after 10-years is lower than the Baseline estimate.

3.5. Maintenance Hours and Staffing Comparisons

The table below shows the As-Is current condition for hours and staffing needs projected over 10-years.

AS IS — No change to the building. Operate as is.												
Year	PM Hours	Repair Hours	Other Hours	Travel Hours	Total Maint Hours	Total FTE	PM %	Repairs %	Other %	Travel %	Hours Saved vs AS IS	FTE Saved vs AS IS
Year 1	12,395	12,395	5,360	3,350	33,501	18.95	37.0%	37.0%	16.0%	10.0%	0	0.00
Year 2	12,395	12,948	5,360	3,350	34,053	19.26	36.4%	38.0%	15.7%	9.8%	0	0.00
Year 3	12,395	13,500	5,360	3,350	34,606	19.57	35.8%	39.0%	15.5%	9.7%	0	0.00
Year 4	12,395	14,176	5,360	3,350	35,282	19.96	35.1%	40.2%	15.2%	9.5%	0	0.00
Year 5	12,395	14,853	5,360	3,350	35,958	20.34	34.5%	41.3%	14.9%	9.3%	0	0.00
Year 6	12,395	15,653	5,360	3,350	36,758	20.79	33.7%	42.6%	14.6%	9.1%	0	0.00
Year 7	12,395	16,453	5,360	3,350	37,559	21.24	33.0%	43.8%	14.3%	8.9%	0	0.00
Year 8	12,395	17,377	5,360	3,350	38,482	21.77	32.2%	45.2%	13.9%	8.7%	0	0.00
Year 9	12,395	18,301	5,360	3,350	39,406	22.29	31.5%	46.4%	13.6%	8.5%	0	0.00
Year 10	12,395	19,349	5,360	3,350	40,454	22.88	30.6%	47.8%	13.2%	8.3%	0	0.00

The table below shows Scenario 1 the State of Good Repair upgrade to the facility. The two right hand columns so the number of hours and staffing saved compared to the current 'As-Is' building.

SCENARIO 1 — Replace all MEP equipment, buildings remain unchanged. Base building remains old.												
Year	PM Hours	Repair Hours	Other Hours	Travel Hours	Total Maint Hours	Total FTE	PM %	Repairs %	Other %	Travel %	Hours Saved vs AS IS	FTE Saved vs AS IS
Year 1	12,395	8,111	5,360	3,350	29,217	16.53	42.4%	27.8%	18.3%	11.5%	4,284	2.42
Year 2	12,395	8,664	5,360	3,350	29,769	16.84	41.6%	29.1%	18.0%	11.3%	4,284	2.42
Year 3	12,395	9,216	5,360	3,350	30,322	17.15	40.9%	30.4%	17.7%	11.0%	4,284	2.42
Year 4	12,395	9,892	5,360	3,350	30,998	17.53	40.0%	31.9%	17.3%	10.8%	4,284	2.42
Year 5	12,395	10,569	5,360	3,350	31,674	17.92	39.1%	33.4%	16.9%	10.6%	4,284	2.42
Year 6	12,395	11,369	5,360	3,350	32,474	18.37	38.2%	35.0%	16.5%	10.3%	4,284	2.42
Year 7	12,395	12,169	5,360	3,350	33,275	18.82	37.3%	36.6%	16.1%	10.1%	4,284	2.42
Year 8	12,395	13,093	5,360	3,350	34,198	19.34	36.2%	38.3%	15.7%	9.8%	4,284	2.42
Year 9	12,395	14,017	5,360	3,350	35,122	19.87	35.3%	39.9%	15.3%	9.5%	4,284	2.42
Year 10	12,395	15,065	5,360	3,350	36,170	20.46	34.3%	41.6%	14.8%	9.3%	4,284	2.42

The table below shows Scenario 2 the New Building construction option. The two right hand columns so the number of hours and staffing saved compared to the current 'As-Is' building.

SCENARIO 2 — Replace the main building, with all new equipment. Base building is no longer an issue — only the life cycle of the equipment as it ages drives the increase.												
Year	PM Hours	Repair Hours	Other Hours	Travel Hours	Total Maint Hours	Total FTE	PM %	Repairs %	Other %	Travel %	Hours Saved vs AS IS	FTE Saved vs AS IS
Year 1	12,395	2,441	5,360	3,350	23,546	13.32	52.6%	10.4%	22.8%	14.2%	9,955	5.63
Year 2	12,395	2,926	5,360	3,350	24,032	13.59	51.6%	12.2%	22.3%	13.9%	10,021	5.67
Year 3	12,395	3,479	5,360	3,350	24,584	13.91	50.4%	14.2%	21.8%	13.6%	10,021	5.67
Year 4	12,395	4,088	5,360	3,350	25,194	14.25	49.2%	16.2%	21.3%	13.3%	10,088	5.71
Year 5	12,395	4,765	5,360	3,350	25,870	14.63	47.9%	18.4%	20.7%	12.9%	10,088	5.71
Year 6	12,395	5,498	5,360	3,350	26,604	15.05	46.6%	20.7%	20.1%	12.6%	10,155	5.74
Year 7	12,395	6,298	5,360	3,350	27,404	15.50	45.2%	23.0%	19.6%	12.2%	10,155	5.74
Year 8	12,395	7,156	5,360	3,350	28,261	15.98	43.9%	25.3%	19.0%	11.9%	10,221	5.78
Year 9	12,395	8,079	5,360	3,350	29,185	16.51	42.5%	27.7%	18.4%	11.5%	10,221	5.78
Year 10	12,395	9,061	5,360	3,350	30,166	17.06	41.1%	30.0%	17.8%	11.1%	10,288	5.82

In the tables below and on the following pages each scenario is shown twice: Total Maint Hours by class (PM + Repairs + Other + Travel for that class), then Total FTE by class. PM Hours and Est FTE for PM are the baseline Table C values and do not change by scenario or year — the movement is all in repairs, per §2.

AS IS — No change to the building. Operate as is. — Total Maint Hours by Class

Row Labels	Group	PM Hours	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10-Year Total
Conveying	MEP / Equipment	546.4	1,477	1,504	1,531	1,564	1,597	1,635	1,673	1,717	1,761	1,810	**16,270**
Electrical	MEP / Equipment	777.1	2,100	2,139	2,178	2,224	2,271	2,325	2,380	2,442	2,504	2,574	**23,138**
Exterior Enclosure	Base Building	33.1	89	91	92	94	95	97	99	102	104	107	**970**
Fire Protection	MEP / Equipment	399.1	1,079	1,098	1,118	1,142	1,166	1,194	1,222	1,254	1,286	1,322	**11,883**
Food Service_Dietary	MEP / Equipment	167.8	454	462	470	480	490	502	514	527	541	556	**4,997**
HVAC	MEP / Equipment	3,233.1	8,738	8,900	9,061	9,255	9,449	9,676	9,902	10,161	10,419	10,710	**96,273**
Plumbing	MEP / Equipment	380.7	1,029	1,048	1,067	1,090	1,113	1,139	1,166	1,196	1,227	1,261	**11,336**
Interior Construction	Base Building	6,638.2	17,941	18,207	18,472	18,804	19,136	19,534	19,933	20,397	20,862	21,393	**194,679**
Life Safety	MEP / Equipment	162.0	438	446	454	464	473	485	496	509	522	537	**4,824**
Laundry	MEP / Equipment	45.9	124	126	129	131	134	137	141	144	148	152	**1,367**
Landscaping	Site	12.0	32	32	32	32	32	32	32	32	32	32	**324**
Grand Total		**12,395.3**	**33,501**	**34,053**	**34,606**	**35,282**	**35,958**	**36,758**	**37,559**	**38,482**	**39,406**	**40,454**	**366,060**

AS IS — No change to the building. Operate as is. — Total FTE by Class

Row Labels	Group	Est FTE for PM	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10-Year Total
Conveying	MEP / Equipment	0.31	0.84	0.85	0.87	0.88	0.90	0.92	0.95	0.97	1.00	1.02	**9.20**
Electrical	MEP / Equipment	0.44	1.19	1.21	1.23	1.26	1.28	1.32	1.35	1.38	1.42	1.46	**13.09**
Exterior Enclosure	Base Building	0.02	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	**0.55**
Fire Protection	MEP / Equipment	0.23	0.61	0.62	0.63	0.65	0.66	0.68	0.69	0.71	0.73	0.75	**6.72**
Food Service_Dietary	MEP / Equipment	0.09	0.26	0.26	0.27	0.27	0.28	0.28	0.29	0.30	0.31	0.31	**2.83**
HVAC	MEP / Equipment	1.83	4.94	5.03	5.13	5.23	5.34	5.47	5.60	5.75	5.89	6.06	**54.45**
Plumbing	MEP / Equipment	0.22	0.58	0.59	0.60	0.62	0.63	0.64	0.66	0.68	0.69	0.71	**6.41**
Interior Construction	Base Building	3.75	10.15	10.30	10.45	10.64	10.82	11.05	11.27	11.54	11.80	12.10	**110.11**
Life Safety	MEP / Equipment	0.09	0.25	0.25	0.26	0.26	0.27	0.27	0.28	0.29	0.30	0.30	**2.73**
Laundry	MEP / Equipment	0.03	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.09	**0.77**
Landscaping	Site	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	**0.18**
Grand Total		**7.01**	**18.95**	**19.26**	**19.57**	**19.96**	**20.34**	**20.79**	**21.24**	**21.77**	**22.29**	**22.88**	**207.05**

SCENARIO 1 — Replace all MEP equipment to State of Good Repair, buildings remain unchanged. Base building remains old. — Total FTE by Class													
Row Labels	**Group**	**PM Hours**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Conveying	MEP / Equipment	546.4	1,067	1,094	1,122	1,154	1,187	1,225	1,264	1,307	1,351	1,400	**12,172**
Electrical	MEP / Equipment	777.1	1,517	1,556	1,595	1,642	1,688	1,743	1,797	1,859	1,921	1,991	**17,310**
Exterior Enclosure	Base Building	33.1	89	91	92	94	95	97	99	102	104	107	**970**
Fire Protection	MEP / Equipment	399.1	779	799	819	843	867	895	923	955	987	1,023	**8,890**
Food Service_Dietary	MEP / Equipment	167.8	328	336	344	355	365	376	388	401	415	430	**3,738**
HVAC	MEP / Equipment	3,233.1	6,313	6,475	6,637	6,831	7,025	7,251	7,477	7,736	7,995	8,286	**72,024**
Plumbing	MEP / Equipment	380.7	743	762	781	804	827	854	880	911	941	976	**8,481**
Interior Construction	Base Building	6,638.2	17,941	18,207	18,472	18,804	19,136	19,534	19,933	20,397	20,862	21,393	**194,679**
Life Safety	MEP / Equipment	162.0	316	324	333	342	352	363	375	388	401	415	**3,609**
Laundry	MEP / Equipment	45.9	90	92	94	97	100	103	106	110	113	118	**1,023**
Landscaping	Site	12.0	32	32	32	32	32	32	32	32	32	32	**324**
Grand Total		**12,395.3**	**29,217**	**29,769**	**30,322**	**30,998**	**31,674**	**32,474**	**33,275**	**34,198**	**35,122**	**36,170**	**323,220**

SCENARIO 1 — Replace all MEP equipment to State of Good Repair, buildings remain unchanged. Base building remains old. — Total FTE by Class													
Row Labels	**Group**	**Est FTE for PM**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Conveying	MEP / Equipment	0.31	0.60	0.62	0.63	0.65	0.67	0.69	0.71	0.74	0.76	0.79	**6.88**
Electrical	MEP / Equipment	0.44	0.86	0.88	0.90	0.93	0.95	0.99	1.02	1.05	1.09	1.13	**9.79**
Exterior Enclosure	Base Building	0.02	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	**0.55**
Fire Protection	MEP / Equipment	0.23	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.54	0.56	0.58	**5.03**
Food Service_Dietary	MEP / Equipment	0.09	0.19	0.19	0.19	0.20	0.21	0.21	0.22	0.23	0.23	0.24	**2.11**
HVAC	MEP / Equipment	1.83	3.57	3.66	3.75	3.86	3.97	4.10	4.23	4.38	4.52	4.69	**40.74**
Plumbing	MEP / Equipment	0.22	0.42	0.43	0.44	0.45	0.47	0.48	0.50	0.52	0.53	0.55	**4.80**
Interior Construction	Base Building	3.75	10.15	10.30	10.45	10.64	10.82	11.05	11.27	11.54	11.80	12.10	**110.11**
Life Safety	MEP / Equipment	0.09	0.18	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.23	0.23	**2.04**
Laundry	MEP / Equipment	0.03	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.07	**0.58**
Landscaping	Site	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	**0.18**
Grand Total		**7.01**	**16.53**	**16.84**	**17.15**	**17.53**	**17.92**	**18.37**	**18.82**	**19.34**	**19.87**	**20.46**	**182.82**

SCENARIO 2 — Fully replace the main building, with all new equipment. Base building is no longer an issue — only the life cycle of the equipment as it ages drives the increase. — Total FTE by Class													
Row Labels	**Group**	**PM Hours**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Conveying	MEP / Equipment	546.4	1,067	1,094	1,122	1,154	1,187	1,225	1,264	1,307	1,351	1,400	**12,172**
Electrical	MEP / Equipment	777.1	1,517	1,556	1,595	1,642	1,688	1,743	1,797	1,859	1,921	1,991	**17,310**
Exterior Enclosure	Base Building	33.1	61	62	64	65	67	68	70	72	75	77	**681**
Fire Protection	MEP / Equipment	399.1	779	799	819	843	867	895	923	955	987	1,023	**8,890**
Food Service_Dietary	MEP / Equipment	167.8	328	336	344	355	365	376	388	401	415	430	**3,738**
HVAC	MEP / Equipment	3,233.1	6,313	6,475	6,637	6,831	7,025	7,251	7,477	7,736	7,995	8,286	**72,024**
Plumbing	MEP / Equipment	380.7	743	762	781	804	827	854	880	911	941	976	**8,481**
Interior Construction	Base Building	6,638.2	12,299	12,498	12,763	13,029	13,361	13,693	14,091	14,489	14,954	15,419	**136,594**
Life Safety	MEP / Equipment	162.0	316	324	333	342	352	363	375	388	401	415	**3,609**
Laundry	MEP / Equipment	45.9	90	92	94	97	100	103	106	110	113	118	**1,023**
Landscaping	Site	12.0	32	32	32	32	32	32	32	32	32	32	**324**
Grand Total		**12,395.3**	**23,546**	**24,032**	**24,584**	**25,194**	**25,870**	**26,604**	**27,404**	**28,261**	**29,185**	**30,166**	**264,846**

SCENARIO 2 — Fully replace the main building, with all new equipment. Base building is no longer an issue — only the life cycle of the equipment as it ages drives the increase. — Total FTE by Class													
Row Labels	**Group**	**Est FTE for PM**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Conveying	MEP / Equipment	0.31	0.60	0.62	0.63	0.65	0.67	0.69	0.71	0.74	0.76	0.79	**6.88**
Electrical	MEP / Equipment	0.44	0.86	0.88	0.90	0.93	0.95	0.99	1.02	1.05	1.09	1.13	**9.79**
Exterior Enclosure	Base Building	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	**0.38**
Fire Protection	MEP / Equipment	0.23	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.54	0.56	0.58	**5.03**
Food Service_Dietary	MEP / Equipment	0.09	0.19	0.19	0.19	0.20	0.21	0.21	0.22	0.23	0.23	0.24	**2.11**
HVAC	MEP / Equipment	1.83	3.57	3.66	3.75	3.86	3.97	4.10	4.23	4.38	4.52	4.69	**40.74**
Plumbing	MEP / Equipment	0.22	0.42	0.43	0.44	0.45	0.47	0.48	0.50	0.52	0.53	0.55	**4.80**
Interior Construction	Base Building	3.75	6.96	7.07	7.22	7.37	7.56	7.74	7.97	8.20	8.46	8.72	**77.26**
Life Safety	MEP / Equipment	0.09	0.18	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.23	0.23	**2.04**
Laundry	MEP / Equipment	0.03	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.07	**0.58**
Landscaping	Site	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	**0.18**
Grand Total		**7.01**	**13.32**	**13.59**	**13.91**	**14.25**	**14.63**	**15.05**	**15.50**	**15.98**	**16.51**	**17.06**	**149.80**

4. Equipment Summary

Table 5, below, shows the quantity of facilities equipment inventoried as part of the Facility Condition Assessment project. This equipment is sorted by equipment classification. Detailed equipment information may be found in Section 7.

Table 5- Equipment Summary

Location	Conveying	Electrical	Exterior Enclosure	Fire Protection	Food Service	HVAC	Interior Construction	Landscaping	Laundry	Life Safety	Plumbing
Sacramento County Main Jail	16	157	6	9	38	176	11	1	10	6	47

5. Preventive Maintenance Summary

Table 6 below presents a summary of the PM Schedules for Sacramento County Main Jail

Table 6- Preventive Maintenance Summary

Classification/Type	Weekly	Monthly	Quarterly	Semi-Annual	Yearly	Yearly Test	3 Year
Conveying							
Dock Leveling Plate				X			
Elevator			X	X	X		
Wheelchair Lift		X					
Conveyor Baggage		X	X	X			
Electrical							
Automatic Transfer Switch					X		
Exit Lights		X			X		
Generator		X			X		X
Lighting Controller					X		
Lightning Protection					X		
Motor Control Center					X		
Panel					X		
Switchboard					X		
Tank, Fuel					X		
Transformer					X		
Trash Compactor					X		
Exterior Enclosure							
Door				X			
Gate				X			
Overhead Door					X		
Roof					X		
Fire Protection							
Backflow Preventer					X		
Control System					X		
Fire Alarm Panel					X		
Fire Alarm System					X		
Fire Extinguisher		X			X		
Pump	X		X		X	X	
Pump, Jockey			X		X		
Fire Riser, Wet		X			X		
Sprinkler System		X			X		

Classification/Type	Weekly	Monthly	Quarterly	Semi-Annual	Yearly	Yearly Test	3 Year
Food Service							
Compressor, Refrigeration			X		X		
Dishwasher			X				
Exhaust Hood				X			
Grease Trap, In Ground			X				
Griddle			X	X			
Ice Machine				X			
Mixer			X				
Oven			X				
Steam Table			X				
Table			X				
Walk-In Freezer			X	X			
HVAC							
Air Compressor			X		X		
Air Conditioner			X		X		
Air Dryer			X		X		
Air Handling Unit			X		X		
Boiler, Gas		X	X		X		
Building Automation System					X		
Cooling Tower		X	X		X		
Ductless Split-type Air Conditioner			X		X		
Evaporator			X		X		
Exhaust Fan				X	X		
Expansion Tank					X		
Fan Coil Unit			X		X		
Fan				X	X		
Motor					X		
Package Unit			X		X		
Pump			X		X		
Tank					X		
Motor					X		
VFD					X		
UV Germicidal Light	X	X	X	X	X		
Interior Construction							
Door				X			
Security Door /Swing		X	X	X			
Door Hardware		X	X	X			
Pneumatic Door		X	X	X			

Classification/Type	Weekly	Monthly	Quarterly	Semi-Annual	Yearly	Yearly Test	3 Year
Landscaping							
Flag Pole					X		
Laundry							
Dryer					X		
Washer					X		
Linen Press		X	X	X			
Life Safety							
Automated External Defibrillator		X					
Eye Wash / Safety Shower	X						
Eyewash	X						
Plumbing							
Backflow Preventer					X		
Drinking Fountain			X				
Irrigation Controller					X		
Pump, Circulator			X		X		
Sink		X	X	X			
Shower		X	X	X			
Sump Pump					X		
Tank, Storage					X		
Water Softener					X		
Toilet / Urinal		X	X	X			

6. Preventive Maintenance Schedules

Following are the preventive maintenance schedules recommended by BVNA for the facilities equipment included in this report. Each PM Schedule includes recommended task, frequency, and safety notes. The schedules have been formatted to enable individual pages to be distributed to maintenance staff. More importantly, the schedules are provided under separate cover in an Excel spreadsheet format suitable for uploading into County's Tririga CMMS. If desired, BV will review PM schedules with the County and adjust frequencies and start dates as required to meet the County's' needs and match available resources.

6.1 Classification: Conveying

6.1.1 Type: Dock Leveling Plate

(6 MO) Dock Leveling Plate PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise or vibration.
3. Inspect structural features, framework, support members, anchor bolts, pit, platform, etc. Examine condition of bumper. Does it protect ramp properly?
4. Remove dirt and trash from pit and determine if pit drain is open.
5. Inspect motor, controls, starter, push buttons, solenoids, etc. Clean, adjust and lubricate as necessary. Be sure disconnect switch can be locked.
6. Inspect electrical wiring and connections; tighten loose connections.
7. [Hydraulic Units] Inspect coupling, pump, control valves, piping, relief valve reservoir, fill pipe, cap, vents, etc. clean, adjust, and lubricate as needed.
8. [Hydraulic Units] Inspect cylinder, ram, packing glands, etc. Add or renew packing as required.
9. [Hydraulic Units] Change oil as required.
10. [Electro-Mechanical Units] Clean and inspect coupling, reduction gear, sprockets and chain, gear trains, screw and lever, and/or other mechanical features. Look for misalignment, loose bolts, evidence of binding or wear, excessive clearance, etc., Tighten as necessary.
11. [Electro-Mechanical Units] Examine lubrication devices. Service if required.
12. Test operation of ramp in all directions using a load if possible. Note if ramp holds and does not creep when load is applied or removed. Adjust if necessary.
13. Check manual operation, power disengagement, etc.
14. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.1.2 Type: Elevator

(3 MO) Elevator PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Ride in the car to observe operation of doors, leveling, smoothness, and door reopening devices at each landing. Listen for unusual noises in the car and in the hoist way.
3. Inspect and lubricate (as required) machinery, [pumps, piping, drive, valve (Hydraulic Elevators)], [sheaves, worm, gear, motor, brake (Electric Elevators)], selector, and controller.
4. Check and clean the door switch contacts.
5. Check the door speed control switches.
6. Check the condition of resistors and mounting assemblies.
7. Check the car top and hoistway for loose covers, vanes, or components.
8. Inspect the traveling cables for damage.
9. Inspect the counterweight rope for wear and lubrication (if equipped).
10. (Electric Elevators) Inspect the brake linings (as required)
11. (Electric Elevators) Inspect all ropes for wear and lubrication (do not lubricate the governor rope) - replace or lubricate the ropes if required. Clean the governor and hoist ropes. Inspect the rope hitches, fastenings, and shackles - equalize ropes if warranted.
12. (Electric Elevators) Check the car position sensor drive wheel.
13. (Electric Elevators) Check decelerations, advances, and accelerations to ensure all cars are matched.
14. (Electric Elevators) Inspect all parts of the safeties and adjust clearance between the safety jaws and guide rails.
15. (Electric Elevators) Clean all parts and lubricate the pivot points.
16. Clean area around the equipment and place it back into operation
17. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(6 MO) Elevator PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Complete comprehensive inspection in accordance with ASME A17.2.
3. (Electric Elevators) Check the clearances for governor tension sheave, counterweight-to-buffer (with car at top landing), and compensation sheave to pit. Check governor sheave fastenings.
4. (Electric Elevators) Check all of the timers in the system and reset if necessary.
5. (Electric Elevators) Inspect guide rails, cams, fastenings, and counterweights in hoist ways.
6. (Electric Elevators) Test all of the terminal limit switches. Lubricate the limit switch roller pins.
7. (Electric Elevators) Inspect the sheaves to verify that they are tight on the shafts, and sound their spokes and hubs with a hammer to inspect for cracks. Repair as necessary.
8. (Electric Elevators) Lubricate the guide shoe stems.
9. Clean area around the equipment and place it back into operation
10. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Elevator PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Conduct Category 1 tests (and Category 3 (Hydraulic Elevators) and Category 5 tests, if due).
3. (Hydraulic Elevators) Inspect the condition of the flexible hoses and replace as needed. Pressure hoses are required to be tested, inspected, and replaced according to the Code.
4. (Hydraulic Elevators) As required, test a sample of the hydraulic fluid for viscosity, color, contamination, foaming, and other pertinent properties specified by the equipment manufacturer. Drain and replace the fluid if the tests show it does not meet the requirements of the equipment manufacturer.
5. (Electric Elevators) Remove, clean, and lubricate the brake cores. Inspect the brake linings for wear - clean or replace if necessary. Adjust the brakes to wear evenly if necessary.
6. (Electric Elevators) Inspect the armatures of hoist motor and motor-generator (if equipped). Check the electrical connections. Drain, flush, and refill the oil reservoirs. Check the brushes for neutral settings and for proper quartering and spacing on the commutators. Reset if necessary. Lubricate the bearings. Vacuum the carbon
7. and dust. Clean the screens.
8. (Electric Elevators) Drain, flush, and refill the gearing lubricant.
9. (Electric Elevators) Check the compensation rope tension.
10. (Electric Elevators) Lubricate the sheave bearings and check for leaky seals.
11. Clean the guide rails with solvent to remove dirt, debris, or excess lubricant.
12. Test the car emergency light for required illumination.
13. Test and adjust dispatching, scheduling, and emergency service of the group supervisory control system (if equipped).
14. Clean the hoist way.
15. Vacuum the dust from controllers and relays.
16. Clean area around the equipment and place it back into operation
17. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.1.3 Type: Wheelchair Lift

(1 MO) Wheelchair Lift PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visually inspect the unit for unusual wear or damage.
3. Operate the unit and ensure smooth operation throughout. Check unit for usual noise or vibration.
4. Check manufacturer's recommendation for additional maintenance items for specific unit.
5. Clean area around equipment.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.1.4 Type: Conveyor, Baggage

(Daily) Conveyor, Baggage PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Belt & Rollers Visual inspection: check for damage, debris, misalignment
3. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(Weekly) Conveyor, Baggage PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Clean belt surface: Remove debris and buildup
3. Drive Motor: Listen for abnormal noise and check for vibration or overheating
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 MO) Conveyor, Baggage PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
   Lubricate bearings: Apply manufacturer-approved lubricant
2. Check fasteners: Tighten loose bolts and supports
3. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 MO) Conveyor, Baggage PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Adjust belt tracking: Center belt on rollers
3. Inspect wiring and panels: Check for loose or damaged connections
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(6 MO) Conveyor, Baggage PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Drive Chain/Gearbox: Inspect and lubricate and Check wear and oil levels
3. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Conveyor, Baggage PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect and test motor: and Check amperage and insulation
3. Full operational test: Run system under load and verify performance
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2 Classification: Electrical

6.2.1 Type: Automatic Transfer Switch

(1 YR) ATS PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Verify switch has been operating correctly during monthly testing.
3. De-energize, lockout / tagout unit.
4. Clean dust and dirt from all surfaces inside of enclosure.
5. Inspect contactors for pitting, wear or discoloration.
6. Lubricate mechanisms as required.
7. Inspect electrical wiring and connections; tighten loose connections.
8. Return unit to service.
9. Clean exterior with dry cloth.
10. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2.2 Type: Exit Lights

(1 MO) Exit Lights PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Inspect for structural defects and verify mounting is secure.
2. Push test button and observe light operation for a minimum of 30 seconds.
3. Clean exterior with dry cloth.
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Exit Lights PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Inspect for structural defects and verify mounting is secure.
2. Turn off power to light and verify unit can run on battery for 90 minutes.
3. Inspect electrical wiring and connections; tighten loose connections.
4. Ensure there are no decorations, furnishings, or equipment that impair visibility of an exit sign.
5. Clean exterior with dry cloth.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2.3 Type: Generator

(1 MO) Generator PM

Safety Notes:

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect exterior for damage, missing covers, missing bolts or open holes.
3. Check and record battery system specific gravity and voltage of the pilot cell of each battery.
4. Check level of electrolyte in batteries. Refill to proper level. Record amount of water used. Abnormal use of water indicates overcharging.
5. Equalize charge on batteries, if required.
6. Verify that battery charger is operating properly.
7. Record engine running time meter reading at start and end of test.
8. Check fan and alternator belts for condition and proper tension.
9. Simulate normal power failure from a "cold start" by use of the test switch in the automatic transfer switch or by opening normal power supply to the emergency power supply system. Observe and record time delay on start.
10. Run generator with at least 30% load (from building load or load bank) for a minimum of 30 minutes.
11. Record AC voltage, frequency, and amperage.
12. Record oil pressure, battery-charging rate, and water or air temperature after 15 minutes running time.
13. While unit is operating, thoroughly observe operation for any indication of defects or possible malfunctions.
14. Check exhaust system and muffler for leaks.
15. After unit has operated for 25 minutes, log the operation to show at least the following information: engine and generator speed in R.P.M., operating voltage, frequency, operating amperage, engine temperatures, engine oil pressure, hour meter readings.
16. Return test switch on ATS to normal or reestablish normal power supply at such time as will cause a minimum running time under load.
17. Record time delay on retransfer.
18. Record time delay on shutdown on units so equipped.
19. Verify that transfer switch normal position pilot light is illuminated and isolating switch is closed – standby (emergency) and system is set for automatic start and transfer.
20. Verify that all alarm pilot lights off.
21. After unit has been operated, check lubricant and coolant according to manufacturer's instructions.
22. Maintain engine log in Generator Room.
23. Clean generator room and remove all debris.
24. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Generator PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect exterior for damage, missing covers, missing bolts or open holes.
3. Check coolant freeze protection level (-32F), correct as needed.
4. Obtain sample of engine oil and coolant for test/analysis.
5. Inspect condition of coolant system hoses and clamps, replace as needed.
6. Inspect condition of jacket water heater hoses and clamps, replace as needed.
7. Inspect condition of fan v-belts for wear. Adjust tension or replace if needed.
8. Inspect condition of belt/pulley guards and fan cowling. Inspect for cracks, broken welds and loose items.
9. Inspect radiator and shroud for cleanliness and any obstructions, clean as needed. Check all fasteners and hardware for condition and security.
10. Inspect electrical wiring and connections, for looseness or damage.
11. Check air filter condition and cleanliness. Clean and replace as needed.
12. Check fuel/water separator, drain water and clean/replace filter if required.
13. Drain water and accumulated sediment from fuel storage tank if required.
14. Inspect general piping and valves for condition, loose or missing parts/hardware.
15. Inspect exhaust system for leaks, loose or missing hardware/fasteners on piping and support brackets. Check rain cap for security and correct open/close movement. Perform corrosion control as needed on silencer and piping system.
16. Inspect condition of air intake louvers. Check actuator motors and linkage for security and freedom of movement. Identify any loose or missing parts, correct as needed.
17. Visually inspect generator and windings for hardware security. Check for cleanliness, correctly clean as needed (only use low press air to prevent possible damage). Check condition and security of exciter assembly.
18. Inspect units control panel components and wiring for correct condition. Check termination points for security. Clean panels interior/exterior of any accumulated dust or dirt.
19. Clean generator room and remove all debris.
20. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 YR) Generator PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect exterior for damage, missing covers, missing bolts or open holes.
3. Change engine oil and filters per oil sample analysis or service hours.
4. Change fuel filters and water separator element.
5. Replace fan v-belts; adjust for correct tension.
6. Replace hoses and clamps on engine jacket water heater system.
7. Inspect/replace engine coolant system hoses/clamps.
8. Clean and flush radiator if needed per condition/coolant sample analysis.
9. Check water pump for condition and any leakage from weep hole or other area.
10. If required, add coolant extender to coolant system.
11. Check engine crankcase breather, clean element as needed.
12. Inspect governor linkage for condition/operation. Check oil level if required.
13. Lubricate unit fan drive/hub bearing as needed.
14. Check/test engine protective devices/controls for correct status and operation.
15. Clean generator room and remove all debris.
16. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2.4 Type: Lighting Controller

(1 YR) Lighting Controller PM

Safety Notes:

Check with operating or area personnel for deficiencies.

Task Instructions:

1. Inspect exterior for damage, missing covers, missing bolts or open holes.
2. Inspect electrical wiring and connections; tighten loose connections.
3. Clean out panel with clean, dry, pressured gas.
4. Clean exterior with dry cloth.
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2.5 Type: Lightning Protection

(1 YR) Lightning Protect PM

Safety Notes:

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect exterior for damage, missing covers, missing bolts or open holes.
3. With panel energized, while wearing PPE appropriate for the arc flash potential of the equipment and with an escort, remove panel cover to expose the electrical connections.
4. Inspect all conductors, fasteners and other components, verify they are securely attached.
5. Verify grounding electrodes are still attached.
6. Verify surge protection devices are still operational.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2.6 Type: Motor Control Center

(1 YR) MCC PM

Safety Notes:

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect exterior for damage, missing covers, missing bolts or open holes.
3. With panel energized, while wearing PPE appropriate for the arc flash potential of the equipment and with an escort, remove panel cover to expose the electrical connections.
4. Inspect electrical connections using a thermographic or infrared camera. For connections with temperature difference of 4 C to 15C compared to similar components under similar loading, repair as time permits. For connections with temperature > 15C schedule repair immediately.
5. Return unit to service.
6. Clean exterior with dry cloth.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2.7 Type: Panel

(1 YR) Panel PM

Safety Notes:

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect exterior for damage, missing covers, missing bolts or open holes.
3. With panel energized, while wearing PPE appropriate for the arc flash potential of the equipment and with an escort, remove panel cover to expose the electrical connections.
4. Inspect electrical connections using a thermographic or infrared camera. For connections with temperature difference of 4 C to 15C compared to similar components under similar loading, repair as time permits. For connections with temperature > 15C schedule repair immediately.
5. Return unit to service.
6. Clean exterior with dry cloth.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2.8 Type: Switchboard

(1 YR) Switchboard PM

Safety Notes:

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect exterior for damage, missing covers, missing bolts or open holes.
3. With gear energized, while wearing PPE appropriate for the arc flash potential of the equipment and with an escort, remove panel cover to expose the electrical connections.
4. Inspect electrical connections using a thermographic or infrared camera. For connections with temperature difference of 4 C to 15C compared to similar components under similar loading, repair as time permits. For connections with temperature > 15C schedule repair immediately.
5. Return unit to service.
6. Clean exterior with dry cloth.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2.9 Type: Tank, Fuel

(1 YR) Tank, Fuel PM

Safety Notes:

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Determine if water or sludge is accumulating at bottom of tank.
3. Inspect piping and valves for leaks, damage or deterioration.
4. Examine tank for leaks.
5. Examine, clean, and adjust operation of strainers, traps, control valves, oil flow meter, oil temperature and pressure gauges.
6. Clean breather vents, conservation vents, and flame arrestors, as required.
7. Check floats and level measuring devices in tank.
8. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2.10 Type: Transformer

(1 YR) Transformer PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect exterior for damage, missing covers, missing bolts or open holes.
3. Identify the loads fed from the transformer. Review these loads with Operations to determine if and when the loads can be shut down so the transformer can be serviced.
4. De-energize, lockout and tagout transformer. While wearing PPE with the appropriate arc flash rating, use a digital multimeter to verify that the voltage has been removed.
5. Remove covers from transformer. Visually inspect transformer internal parts for condition, alignment, corrosion, evidence of tracking and dirt build up.
6. Clean any dust and dirt from transformer internal parts.
7. Re-install covers on transformer.
8. Remove lock and tags from transformer. Re-energize transformer.
9. Check that transformer is operating with no abnormal noises, smells, vibration or heat.
10. Ensure that any cooling fans, temperature switches, and alarms are functioning properly.
11. Perform infrared inspection on transformer. If hot spots are identified, schedule an outage of the transformer to perform corrective maintenance.
12. Clean exterior with dry cloth.
13. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.2.11 Type: Trash Compactor

(1 YR) Trash Compactor PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise or vibration.
3. Inspect piping for leaks, damage or deterioration, as required.
4. Check general condition of unit
5. Clean unit
6. Inspect electrical wiring and connections; tighten loose connections.
7. Return unit to service.
8. Clean area around unit.
9. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.3 Classification: Exterior Enclosure

6.3.1 Type: Door

(6 MO) Door PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Operate door to verify smooth operation. Adjust and service as needed.
2. Inspect the frame and supporting structures.
3. Inspect hardware; hinges, latch keeper, lock. etc. Apply graphite where needed, wipe off excess.
4. Inspect glass, putty, or retaining pieces. Correct any deficiencies.
5. Touch up paint as needed.
6. Clean area around the equipment and place it back into operation
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.3.2 Type: Gate

(6 MO) Gate PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Operate gate to verify smooth operation. Adjust and service as needed.
2. Inspect the base and supporting structures.
3. Visually inspect the rollers, fasteners, brackets and other gate hardware for proper alignment, proper tightness, and signs of damage, breakage, looseness, rust or wear. Moving parts should be lubricated and should not be squeaking.
4. Inspect electrical wiring and connections, for looseness or damage.
5. Verify that all safety systems, including photoeye and contact reversal function perform properly.
6. Touch up paint as needed.
7. Clean area around the equipment and place it back into operation
8. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.3.3 Type: Overhead Door

(1 YR) Overhead Door PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect general arrangement of door and mechanism, mountings, guides, wind locks, anchor bolts, counterbalance, weather-stripping, etc. Clean, tighten, and adjust as required. Make minor repairs as needed.
3. Inspect cables for frayed or broken strands or excessive rusting.
4. Inspect winding drum for tightness and proper tracking of cables.
5. Manually raise and lower door, noting that door tracks evenly and action of brake release, functioning of hand pulls, chains, sprockets, clutch, etc.
6. If equipped, inspect gearbox; change or add oil as needed.
7. Perform required lubrication. Remove old or excess lubricant.
8. Clean area around the equipment and place it back into operation
9. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.3.4 Type: Roof

(1 YR) Roof PM

Safety Notes:

Roof Fall Hazard - Work on roof exposes employee to fall hazard. Review the work to be done and the type and condition of the roof to be inspected and take precautions necessary to prevent falls.

Ladder Safety - Use correct ladder and use ladder as it is designed to be used. Inspect ladder prior to use. Maintain three points of contact with ladder at all times.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check ceilings and the underside of the deck for signs of water entry such as stained ceiling tiles, dry rot in a wooden deck, or rust in a steel deck. Note all deteriorated areas on your roof plan for comparison later on the roof.
3. Walk around the perimeter of the building. Check for cracks and signs of water entry into the walls, examine exterior drainage accessories such as downspout, scupper heads and gutters for signs of leakage. Mark the deficiencies on the roof plan and proceed to the roof.
4. Inspect roof drains. Clean all debris from roof drains and gutters.
5. Inspect all overflow drains, verify at correct height in relation to primary drains.
6. Check for ponding and plant growth (roof should drain within 48 hours of a rain fall.) Any accumulation of water (ponding) should be noted on the roof plan. Pay particular attention to areas near building air intakes.
7. Check for physical damage such as punctures, note location of patches, repairs and accumulation of debris especially near drains.
8. Check for wrinkles, buckles, bubbles and sponginess. Note exposure of bituminous coating due to loose or missing gravel.
9. Check all flashing for wind damage caulking and curling, and exposed edges. Check flashing fasteners for looseness and deterioration.
10. Check the condition of any joints, roof to wall joint in particular. Check the termination of roofing expansion joints at parapet walls. Be sure that water drains off the top of the coping and that it is well attached.
11. Check coping for deterioration, especially rusting, punctures and open seams in metal coping, and spalling or cracking in masonry coping.
12. Check that any installed equipment such as antennas, HVAC equipment and flagpoles are properly installed according to building codes, including necessary I-beam supports for heavy A/C equipment, and are flashed and secured to the building.
13. Refill pitch pockets.
14. Ballasted Roof - Check ballast (rock) for even spread; remove any with very sharp edges.
15. Shingle Type Roof - Check for exposed nails that may have worked loose from seams, shingles, and flashing. Check shingles for cracking, loss of coating, brittleness, and curling. On wood shingles check for cracks, looseness, and rotting.
16. Remove all trash, debris or unsecured material from roof and dispose of properly.
17. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.4 Classification: Fire Protection

6.4.1 Type: Backflow Preventer

(1 YR) Backflow Preventer PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

Task Instructions:

1. Backflow preventer should be tested annually by a certified tester and completed test form submitted to city.
2. Check unit for proper operation, leaks or damage.
3. Secure the incoming potable water line(s).
4. On reduced pressure zone backflow preventers, perform the following tests in accordance with the manufacturer's specifications, using the appropriate test kit: (a) Test check valve number 2 for tightness against reverse flow. (b) Test gate valve number 2 for tightness.(c) Test check valve number 1 for tightness.(d) Test operation of pressure differential relief valve.
5. Service the first and second checks. CAUTION: If the check valve is spring loaded, do not remove the spring retainers. Consult the manufacturer's instructions for proper servicing. (a) Carefully remove screws, cover, and check. (b) Disengage the disc and spring assembly into individual components in accordance with manufacturer's instructions. Remove any embedded foreign objects, and inspect for corrosion, worn seals, etc. Clean or replace the assembly as required.(c) Clean or replace seals as necessary. Apply a light coating of manufacturer's specified and FDA approved lubrication prior to installation of seals. (d)Reassemble the check valve module in reverse order. (e) Repeat for second check.
6. Service the relief valve. CAUTION: Springs may be loaded. Strictly comply with manufacturer's instructions.(a) Remove bolts, cover, diaphragm, and relief valve piston assembly per manufacturer's instructions.(b) Clean or replace wiper seal, piston "O" ring, and relief valve disc as required. Apply appropriate lubricant to "O" ring per manufacturer's specifications prior to reinstallation. (c) Inspect bottom spring assembly. If defective, replace entire unit. Do not attempt to remove the spring.
7. Following the manufacturer's procedures, test and calibrate the device.
8. Clean area and remove all debris.
9. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.4.2 Type: Control System

(1 YR) Control System PM

Safety Notes:

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect the cabinet for damage (exterior and interior) including locks, door hinges, and plastic covers.
3. Check all lamps/LED's (including remote annunciators).
4. Check all fuses, verify proper rating.
5. Check power supply output voltage in normal and under load conditions for at least 5 minutes.
6. Check standby battery voltage under load for a minimum of five minutes (if required).
7. Check battery charge current (be sure it is within manufacturer's limits).
8. Verify trouble signals by opening all alarm and supervision circuits one at a time.
9. Verify ring back feature for systems using a trouble silencing switch which requires resetting.
10. When panel has disconnect and isolating switches, verify that each switch performs its intended function and a trouble signal is received when a supervised function is disconnected.
11. Verify for proper alarm on all input circuits.
12. Verify return to normal operation after each alarm circuit input.
13. Verify for proper reset (either automatic or manual) of the trouble signal when the circuits are closed.
14. Verify for proper contact closure and signal transmission for all panel modes of operation (trouble, alarm, ground, etc.).
15. When system has ground detection feature, verify that a ground fault indication is given whenever any installation conductor is grounded.
16. Verify transmission of signals to a 24 hour manned control station or central station: (a) Actuate an appropriate initiating device and verify that alarm signal is received at the off-premises location. (b) Create a trouble condition and verify that a trouble signal is received at the off-premises location.(c) Actuate a supervisory device and verify that a supervisory signal is received at the off-premises location.
17. Verify for proper operation and confirm proper identification for all remote annunciators. When provided, verify proper operation under a fault condition.
18. Test electrically operated release devices (control heads).
19. Inspect and test all initiating devices (smoke detectors, heat detectors, pull stations, etc.) as per manufacturers recommendations.
20. Inspect and test all Alarm Notification Appliances (horns, strobes, etc.) as per manufacturers recommendations.
21. Check modules in panel for signs of heat (discoloration) or deterioration. Check all meters in panel for proper operation and deflection.
22. Check standby batteries (if located in the panel) for signs of overcharging, heat, and leakage.
23. Clean interior of panel.
24. Return all circuits and subsystems to normal. Leave panel in normal operating condition with door locked.
25. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.4.3 Type: Fire Alarm Panel

(1 YR) Panel, Fire PM

Safety Notes:

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect the cabinet for damage (exterior and interior) including locks, door hinges, and plastic covers.
3. Check all lamps/LED's (including remote annunciators).
4. Check all fuses, verify proper rating.
5. Check power supply output voltage in normal and under load conditions for at least 5 minutes.
6. Check standby battery voltage under load for a minimum of five minutes (if required).
7. Check battery charge current (be sure it is within manufacturer's limits).
8. Verify trouble signals by opening all alarm and supervision circuits one at a time.
9. Verify ring back feature for systems using a trouble silencing switch which requires resetting.
10. When panel has disconnect and isolating switches, verify that each switch performs its intended function and a trouble signal is received when a supervised function is disconnected.
11. Verify for proper alarm on all input circuits.
12. Verify return to normal operation after each alarm circuit input.
13. Verify for proper reset (either automatic or manual) of the trouble signal when the circuits are closed.
14. Verify for proper contact closure and signal transmission for all panel modes of operation (trouble, alarm, ground, etc.).
15. When system has ground detection feature, verify that a ground fault indication is given whenever any installation conductor is grounded.
16. Verify transmission of signals to a 24 hour manned control station or central station: (a) Actuate an appropriate initiating device and verify that alarm signal is received at the off-premises location. (b) Create a trouble condition and verify that a trouble signal is received at the off-premises location.(c) Actuate a supervisory device and verify that a supervisory signal is received at the off-premises location.
17. Verify for proper operation and confirm proper identification for all remote annunciators. When provided, verify proper operation under a fault condition.
18. Test electrically operated release devices (control heads).
19. Inspect and test all initiating devices (smoke detectors, heat detectors, pull stations, etc.) as per manufacturers recommendations.
20. Inspect and test all Alarm Notification Appliances (horns, strobes, etc.) as per manufacturers recommendations.
21. Check modules in panel for signs of heat (discoloration) or deterioration. Check all meters in panel for proper operation and deflection.
22. Check standby batteries (if located in the panel) for signs of overcharging, heat, and leakage.
23. Clean interior of panel.
24. Return all circuits and subsystems to normal. Leave panel in normal operating condition with door locked.
25. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.4.4 Type: Fire Alarm System

(1 YR) Fire Alarm System PM

Safety Notes:

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect the cabinet for damage (exterior and interior) including locks, door hinges, and plastic covers.
3. Check all lamps/LED's (including remote annunciators).
4. Check all fuses, verify proper rating.
5. Check power supply output voltage in normal and under load conditions for at least 5 minutes.
6. Check standby battery voltage under load for a minimum of five minutes (if required).
7. Check battery charge current (be sure it is within manufacturer's limits).
8. Verify trouble signals by opening all alarm and supervision circuits one at a time.
9. Verify ring back feature for systems using a trouble silencing switch which requires resetting.
10. When panel has disconnect and isolating switches, verify that each switch performs its intended function and a trouble signal is received when a supervised function is disconnected.
11. Verify for proper alarm on all input circuits.
12. Verify return to normal operation after each alarm circuit input.
13. Verify for proper reset (either automatic or manual) of the trouble signal when the circuits are closed.
14. Verify for proper contact closure and signal transmission for all panel modes of operation (trouble, alarm, ground, etc.).
15. When system has ground detection feature, verify that a ground fault indication is given whenever any installation conductor is grounded.
16. Verify transmission of signals to a 24 hour manned control station or central station: (a) Actuate an appropriate initiating device and verify that alarm signal is received at the off-premises location. (b) Create a trouble condition and verify that a trouble signal is received at the off-premises location.(c) Actuate a supervisory device and verify that a supervisory signal is received at the off-premises location.
17. Verify for proper operation and confirm proper identification for all remote annunciators. When provided, verify proper operation under a fault condition.
18. Test electrically operated release devices (control heads).
19. Inspect and test all initiating devices (smoke detectors, heat detectors, pull stations, etc.) as per manufacturers recommendations.
20. Inspect and test all Alarm Notification Appliances (horns, strobes, etc.) as per manufacturers recommendations.
21. Check modules in panel for signs of heat (discoloration) or deterioration. Check all meters in panel for proper operation and deflection.
22. Check standby batteries (if located in the panel) for signs of overcharging, heat, and leakage.
23. Clean interior of panel.
24. Return all circuits and subsystems to normal. Leave panel in normal operating condition with door locked.
25. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.4.5 Type: Fire Extinguisher

(1 MO) Fire Extinguisher PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Verify fire extinguisher pressure is reading in acceptable range.
2. Inspect for structural defects and verify mounting is secure.
3. Verify clear path is maintained to each fire extinguisher.
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Fire Extinguisher PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Annual inspection of fire extinguisher should be a detailed inspection completed by qualified fire extinguisher service personnel.
2. Verify fire extinguisher pressure is reading in acceptable range.
3. Verify fire extinguisher is up to date for hydrostatic testing.
4. Inspect for structural defects and verify mounting is secure.
5. Verify clear path is maintained to fire extinguisher.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.4.6 Type: Pump

(1 WK) Pump, Fire PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Verify pump room temperature not less than 40°F and clean with no miscellaneous storage.
3. Verify ventilating louvers free to operate.
4. Inspect piping for leaks.
5. Verify suction reservoir full (if required).
6. Verify pump suction, discharge and bypass valves fully open.
7. Start motor.
8. Check pump packing glands for slight discharge and adjust gland nuts if necessary to attain slight discharge.
9. Check packing boxes, bearings, and pump casing for overheating
10. Check for unusual noise or vibration.
11. Record pump starting pressure and time pump runs after starting (for automatic stop controllers).
12. Record motor running time meter reading.
13. Verify controller pilot light (power on) illuminated and selector switch in Auto position.
14. Verify all alarm pilot lights off.
15. Check for proper supervisory signals.
16. Inspect circulation pressure relief valve, verify that sufficient water flows through the valve when the fire pump is at churn to prevent overheating.
17. Inspect pressure relief valve to ensure that the pressure downstream of the relief valve fittings in the fire pump does not exceed the pressure for which the system components are rated.
18. Check bearing oil level as required.
19. Verify jockey pump starts at appropriate pressure, as required.
20. Return unit to standby operation.
21. Clean area around unit.
22. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 MO) Pump, Fire PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical
exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Inspect piping and valves for leaks, damage, or deterioration.
4. Lubricate pump bearings as required.
5. Clean exterior of motor surfaces of soil accumulation.
6. Clean area around equipment.
7. Doc
8. ument all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Pump, Fire PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Inspect piping and valves for leaks, damage, or deterioration.
4. Lubricate pump bearings, as required.
5. Clean exterior of motor surfaces of soil accumulation.
6. Using strobe scope, inspect coupling while pump is operating for looseness.
7. Measure and record motor amperage.
8. Remove unit from service. Lockout/tagout unit.
9. Check motor ventilation ports and cooling fan for soil accumulation, clean if necessary.
10. Check motor windings for accumulation of dirt or excess grease.
11. Check hold down bolts and grounding straps for tightness.
12. Inspect electrical wiring and connections, for looseness, or damage.
13. Meg motor and record findings.
14. Inspect coupling for wear, damage, or looseness.
15. Clean and repaint any corroded surface.
16. Return unit to service.
17. Lubricate motor bearings, as required. Remove filler and drain plugs. Free drain hole of any hard grease. Add correct type and amount of grease. Run motor for 15 minutes, wipe off excess grease at drain hole and reinstall drain plug.
18. Clean area around equipment.
19. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Fire Pump Test

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Test pump flow at churn, rated and peak flow (150% of rated capacity) and compare results with original acceptance testing or manufacturer pump curves.
2. While testing at churn (no flow) conditions, check pressure relief valve operation and circulation relief valve operation, as required. Continue test for 30 minutes.
3. At 100 % rated flow conditions record suction and discharge pressure readings, engine/pump speed in rpm. Observe any visible abnormality or alarms.
4. At 150 % rated flow conditions record suction and discharge pressure readings, engine/pump speed in rpm. Observe any visible abnormality or alarms.
5. Return unit to standby operation.
6. Clean area around unit.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.4.7 Type: Pump, Jockey

(3 MO) Pump, Jockey PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Inspect piping and valves for leaks, damage, or deterioration.
4. Lubricate pump bearings as required.
5. Clean exterior of motor surfaces of soil accumulation.
6. Clean area around equipment.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Pump, Jockey PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Inspect piping and valves for leaks, damage, or deterioration.
4. Clean exterior of motor surfaces of soil accumulation.
5. Lubricate pump bearings.
6. Using strobe scope, inspect coupling while pump is operating for looseness.
7. Measure and record motor amperage.
8. Remove unit from service. Lockout/tagout unit.
9. Check motor ventilation ports and cooling fan for soil accumulation, clean if necessary.
10. Check motor windings for accumulation of dirt or excess grease.
11. Check hold down bolts and grounding straps for tightness.
12. Inspect electrical wiring and connections for looseness, or damage.
13. Meg motor and record findings.
14. Inspect coupling for wear, damage, or looseness.
15. Clean and repaint any corroded surface.
16. Return unit to service.
17. Lubricate motor bearings, as required. Remove filler and drain plugs. Free drain hole of any hard grease. Add correct type and amount of grease. Run motor for 15 minutes, wipe off excess grease at drain hole and reinstall drain plug.
18. Clean area around equipment.
19. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.4.8 Type: Sprinkler System (Wet)

(1 MO) Sprinkler System PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Fire Control Valves: Inspect each fire control valve for leaks, condition and accessibility. Lubricate outside stems. Determine that each valve is in the proper operating position. If a valve is found closed at the time of the inspection confirm with management on the proper normal valve position.
3. Alarm Check Valves: Verify that all gauges are in good condition and indicate that normal water supply pressure is being maintained. Verify that the valve is free from physical damage and in the appropriate open or closed position. Verify that there is no leakage from the retarding chamber or alarm drains.
4. Risers: Verify that the required number and type of spare sprinkler heads, as well as the proper sprinkler wrench(es) are located in an accessible cabinet.
5. Dry Pipe Valves: Check system air pressure and add pressure as necessary. Verify accelerators and exhauster air pressure and system air pressure are equalized. Verify automatic drain from the intermediate chamber is free to move. Check the level of priming water above clapper and drain excess water.
6. Clean area around equipment.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Sprinkler System PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visually inspect from floor level the sprinkler piping and heads to verify that they are in good condition and free from mechanical damage, leakage, corrosion, and alignment.
3. Identify and replace damaged, bent, corroded, weeping, or painted sprinkler heads.
4. Repair any observed sprinkler piping problems.
5. Remove any insect nests attached to sprinkler heads.
6. Replace broken pipe hangers and refasten any hangers that have become loose.
7. Verify that a minimum distance of 18 inches is maintained between the sprinkler head deflector and the top of all storage, equipment, etc.
8. Verify that the required number and type of spare sprinkler heads and sprinkler wrenches are located in an accessible cabinet.
9. Verify that all water is drained from low points in dry piping systems.
10. Replace sprinkler heads that have been in service for fifty years. The date of manufacture is stamped on the sprinkler head deflector.
11. PIVs: Inspect each PIV for condition and accessibility. Lubricate threads. Close each PIV and verify that a trouble signal was received. Return each PIV to the open position.
12. Fire Control Valves: Inspect each fire control valve for leaks, condition and accessibility. Lubricate outside stems. Close each fire control valve. Check that water flow ceases and that a trouble signal was received. Reopen each valve and check for leaks at stem and joints. Ensure valve is electronically supervised or locked.
13. With supply valve open, check operation of alarm check valve, water motor gong and its drain, and all other alarm or supervisory signals, such as water flow paddle alarms, pressure switches, etc., by flowing water through inspector's test both at valve and at remote connection.
14. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.4.9 Type: Sprinkler System

(1 MO) Sprinkler System PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Fire Control Valves: Inspect each fire control valve for leaks, condition and accessibility. Lubricate outside stems. Determine that each valve is in the proper operating position. If a valve is found closed at the time of the inspection confirm with management on the proper
3. normal valve position.
4. Alarm Check Valves: Verify that all gauges are in good condition and indicate that normal water supply pressure is being maintained. Verify that the valve is free from physical damage and in the appropriate open or closed position. Verify that there is no leakage from the retarding chamber or alarm drains.
5. Risers: Verify that the required number and type of spare sprinkler heads, as well as the proper sprinkler wrench(es) are located in an accessible cabinet.
6. Dry Pipe Valves: Check system air pressure and add pressure as necessary. Verify accelerators and exhauster air pressure and system air pressure are equalized. Verify automatic drain from the intermediate chamber is free to move. Check the level of priming water above clapper and drain excess water.
7. Clean area around equipment.
8. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Sprinkler System PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visually inspect from floor level the sprinkler piping and heads to verify that they are in good condition and free from mechanical damage, leakage, corrosion, and alignment.
3. Identify and replace damaged, bent, corroded, weeping, or painted sprinkler heads.
4. Repair any observed sprinkler piping problems.
5. Remove any insect nests attached to sprinkler heads.
6. Replace broken pipe hangers and refasten any hangers that have become loose.
7. Verify that a minimum distance of 18 inches is maintained between the sprinkler head deflector and the top of all storage, equipment, etc.
8. Verify that the required number and type of spare sprinkler heads and sprinkler wrenches are located in an accessible cabinet.
9. Verify that all water is drained from low points in dry piping systems.
10. Replace sprinkler heads that have been in service for fifty years. The date of manufacture is stamped on the sprinkler head deflector.
11. PIVs: Inspect each PIV for condition and accessibility. Lubricate threads. Close each PIV and verify that a trouble signal was received. Return each PIV to the open position.
12. Fire Control Valves: Inspect each fire control valve for leaks, condition and accessibility. Lubricate outside stems. Close each fire control valve. Check that water flow ceases and that a trouble signal was received. Reopen each valve and check for leaks at stem and joints. Ensure valve is electronically supervised or locked.
13. With supply valve open, check operation of alarm check valve, water motor gong and its drain, and all other alarm or supervisory signals, such as water flow paddle alarms, pressure switches, etc., by flowing water through inspector's test both at valve and at remote connection.
14. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5 Classification: Food Service

6.5.1 Type: Compressor, Refrigeration

(3 MO) Ref Compressor PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check unit for proper operation, excessive noise, or vibration.
2. Check oil level in sight glass of compressor.
3. Clean intake side of condenser coils, fans, and intake screens.
4. Visually inspect fan(s) or blowers(s) for bent blades, looseness, and imbalance.
5. Inspect plumbing, valves, and piping for leaks, adjust as necessary.
6. Clean unit and surrounding area.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Ref Compressor PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check unit for proper operation, excessive noise, or vibration.
2. Check oil level in sight glass of compressor.
3. Clean intake side of condenser coils, fans, and intake screens.
4. Visually inspect fan(s) or blowers(s) for bent blades, looseness, and imbalance.
5. Inspect plumbing, valves, and piping for leaks, adjust as necessary.
6. Check suction pressure and discharge pressure.
7. Check superheat and subcooling temperatures.
8. Check oil pressure and refrigerant suction and discharge pressures.
9. Remove unit from service. Lockout/tagout unit.
10. Check expansion valve sensing bulbs, sensors, and mechanical safety limits.
11. Inspect control and compressor contactors.
12. Inspect electrical wiring and connections; tighten loose connections.
13. Wash condenser coils.
14. Check condenser for corrosion.
15. Clean and repaint any corroded surface.
16. Return unit to service.
17. Lubricate shaft bearings and motor bearings as required.
18. Clean unit and surrounding area.
19. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5.2 Type: Dishwasher

(3 MO) Dishwasher PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Drain all water from the machine and turn off the chemical power switch
3. Refill the machine with water and add delimer to wash area
4. Turn on the wash switch and while the machine is working clean the exterior.
5. Drain all water from the machine and turn on the chemical power switch
6. Clean area around the equipment and place it back into operation
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5.3 Type: Exhaust Hood

(6 MO) Exhaust Hood PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check and clean grease off of duct interiors at connections to the hood.
3. Check and clean grease from duct interiors at access panels.
4. Check access panels for tight seal to prevent air leaks and for grease leaks. Clean, repair, and tighten seals as required.
5. Check and clean grease from all visible and accessible duct seams or joints.
6. Check hood exhaust fans for grease including exterior surfaces, fan housing, blades and protective grills or screens. Clean as required.
7. Check and clean building surfaces at the discharge end of the exhaust duct or exhaust fan housing.
8. Remove grease from interior surfaces of exhaust system ducts, including but not limited to horizontal and vertical shafts, fan and fan housing, and fan motor exterior (fan motor interior excluded).
9. Clean area around the equipment and place it back into operation
10. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5.4 Type: Grease Trap, In Ground

(3 MO) Grease Trap PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Pump all grease and other floating material from the top of the interceptor. The interceptor may need to be agitated slightly to loosen the grease layer.
3. Insert the vacuum tube all the way to the bottom the interceptor to remove all settled solids.
4. Vacuum water out of the interceptor.
5. Clean the sides and bottom of the interceptor. This may be done by “back flowing” the water from the pump truck or by using a pressurized water source to hose down the interceptor.
6. Make sure the interceptor is completely clean.
7. Vacuum remaining water out of the trap.
8. Check that the sanitary T’s on the inlet and outlet sides of the interceptor are not clogged or loose.
9. Make sure any baffles are secure and in place.
10. Inspect the interceptor for any cracks or defects.
11. Check that lids are securely and properly sealed after completion of maintenance.
12. Clean area around the equipment and place it back into operation
13. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5.5 Type: Griddle

(3 MO) Griddle PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Remove unit from service. Lockout/tagout unit.
3. Inspect plug and wire for fraying or damage.
4. Check underside ventilation and clear dust and debris as required.
5. Return unit to service.
6. Clean area around equipment.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(6 MO) Griddle PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided, if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Remove unit from service. Lockout/tagout unit.
3. Inspect plug and wire for fraying or damage.
4. Check underside ventilation and clear dust and debris as required.
5. Check for tight fit of oven doors; adjust door hinges, gasket, and molding.
6. Examine handles, knobs, and controls for tightness and safe condition.
7. Inspect electrical wiring and connections (switch, disconnect, etc.), or check condition of gas supply, valves, regulators, and inspect pilot adjustment. Tighten loose connections.
8. Check operation of thermostats and calibrate as required.
9. Check gas/air mixture.
10. Check gas pressure regularly to ensure proper combustion.
11. Check automatic burner lighters and safety controls.
12. Clean and adjust gas burners.
13. Clean and adjust pilot lights.
14. Lubricate gas valves.
15. Check and clean fan blades for convection ovens.
16. Check flue for proper draft or obstructions.
17. Clean interior walls and elements to obtain maximum heat transfer.
18. Return unit to service.
19. Clean area around equipment.
20. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5.6 Type: Ice Machine

(6 MO) Ice Machine PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visually check for refrigerant, oil or water leaks. Inspect ice condition.
3. Inspect electrical wiring and connections; tighten loose connections.
4. Check all controls; adjust if necessary.
5. Examine water connection; open and close water valve; test ice dispensing valve and (door) metering adjustment.
6. Check and clear ice machine draining system (drain vent, strainer and trap).
7. Examine condition of bin doors-closure, hinges, gaskets, handles and ease of slide; lubricate as required. Check storage bin condition.
8. Clean motor, compressor, and condenser coil.
9. Replace in-line water filter.
10. Lubricate all moving parts, pivot points, and fan motor.
11. Check lubrication of evaporator thrust bearings and chain drive.
12. Disassemble drum assembly, clean and/or replace seals, or examine gear motor auger section, dispenser drive assembly.
13. Replace gear box lubricant with proper oil.
14. Remove supply water screen from strainer and clean.
15. Lubricate water pump and components.
16. Check float valve in makeup tank.
17. Inspect water distribution holes in header.
18. Drain, flush, and clean water contact surfaces of the ice machine.
19. Clean area around the equipment and place it back into operation
20. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5.7 Type: Mixer

(3 MO) Mixer PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Turn off and unplug unit. Inspect plug and wire for fraying or damage.
3. Check parts and attachments for wear and abrasion and clean as required.
4. Clean area around the equipment and place it back into operation
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5.8 Type: Oven

(3 MO) Oven PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Turn off and unplug unit. Inspect plug and wire for fraying or damage.
3. Check the ventilation and make sure it is clear of dust and debris.
4. Remove racks, clean and inspect for damage.
5. Check oven lamp bulb and replace if necessary
6. Clean area around the equipment and place it back into operation
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5.9 Type: Steam Table

(3 MO) Steam Table PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Drain all water from the machine and turn off the chemical power switch
3. Refill the machine with water and add delimer to wash area
4. Turn on the wash switch and while the machine is working clean the exterior.
5. Drain all water from the machine and turn on the chemical power switch
6. Clean area around the equipment and place it back into operation
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5.10 Type: Table

(3 MO) Table PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Turn off and unplug unit. Inspect plug and wire for fraying or damage.
3. Clean interior and exterior using water and a cleaner
4. Clean area around the equipment and place it back into operation
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.5.11 Type: Walk-In Freezer

(3 MO) Walk-In Freezer PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check anti-skid strips for wear and damage and replace as necessary.
3. Check the area for spills and food. Clean as necessary.
4. Clean area around equipment.
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(6 MO) Walk-In Freezer PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided, if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

CONFINED SPACE - All potential hazards should be locked out and tagged out before any body part enters the space. Review with supervision if hazards can’t be locked out prior to entry or if new hazards may be introduced as a result of the work to be done.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check anti-skid strips for wear and damage and replace as necessary.
3. Check the area for spills and food. Clean as necessary.
4. Verify indicator light is on; check compartment temperature.
5. Examine handles, hinges, and tightness of door closure.
6. Inspect door gaskets for damage and proper fit; adjust gaskets as required and lubricate hinges with food grade oil.
7. Verify defrost cycle and timer operation.
8. Inspect defrost systems for proper operation, including timer; adjust as required. Have automatic defrosters adjusted as required so freezer will defrost during "Off-Peak" hours.
9. During operation of unit, check refrigerant pressures and compressor oil level, add refrigerant and oil as required.
10. Remove unit from service. Lockout/tagout unit.
11. Check starter panels and controls for proper operation, burned or loose contacts, and loose connections.
12. Check operation of thermostats; calibrate as required.
13. Clean coils, evaporator drain pan, fins, plates, blowers, fans, motors, intake screens, and drain piping as required; lubricate motor(s).
14. Inspect and service all electric motors.
15. Return unit to service.
16. Clean area around equipment.
17. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6 Classification: HVAC

6.6.1 Type: Air Compressor

(3 MO) Air Compressor PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided, if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Inspect automatic blowdowns for condition and proper operation.
4. Perform functional test of compressor to verify pressure switch starts and stops compressor at correct pressures.
5. Check separator element and air filter pressure differentials, as required.
6. Inspect piping and valves for leaks, damage, or deterioration.
7. Remove unit from service. Lockout/tagout unit.
8. Check oil and coolant level. Change oil on reciprocating compressor.
9. Return unit to service.
10. Clean area around equipment.
11. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Air Compressor PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Inspect automatic blowdowns for condition and proper operation.
4. Perform functional test of compressor to verify pressure switch starts and stops compressor at correct pressures.
5. Check separator element and air filter pressure differentials, as required.
6. Inspect piping and valves for leaks, damage, or deterioration.
7. Remove unit from service. Lockout/tagout unit.
8. Inspect electrical wiring and connections; tighten loose connections.
9. Inspect starter contactors.
10. Check oil and coolant level. Change oil on reciprocating compressor.
11. For screw or centrifugal compressors, change oil based on oil analysis results or manufacturer recommended run hours.
12. Change air filter and separator element.
13. Check hoses and inspect belts for proper tension and alignment, replace as required.
14. Lubricate motor as required.
15. Clean cooler cores.
16. Return unit to service.
17. Clean area around equipment.
18. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.2 Type: Air Conditioner

(3 MO) AC Unit PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check operating unit for excessive noise, vibration, or icing.
3. Replace air filters.
4. Perform operational check of unit; make adjustments on controls and other components as required.
5. Clean area around equipment.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) AC Unit PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check operating unit for excessive noise, vibration, or icing.
3. Replace air filters.
4. Perform operational check of unit; make adjustments on controls and other components as required.
5. During operation of unit, check refrigerant pressure; add refrigerant as necessary.
6. Remove unit from service. Lockout/tagout unit.
7. Inspect electrical wiring and connections; tighten loose connections.
8. Inspect condenser fan for looseness, damage, or dirt.
9. Clean condenser and evaporator coils, evaporator drain pan, blowers, fans, motors and drain piping as required.
10. Return unit to service.
11. Clean area around equipment.
12. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.3 Type: Air Dryer

(3 MO) Air Dryer PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Verify air dryer is drying air sufficiently and supplying air with the required dewpoint.
4. Inspect refrigeration circuit for icing or blockage of coils.
5. Inspect piping and valves for leaks, damage, or deterioration.
6. Inspect automatic blowdowns for condition and proper operation.
7. Check separator element and air filter pressure differentials, as required.
8. Clean area around equipment.
9. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Air Dryer PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Verify air dryer is drying air sufficiently and supplying air with the required dewpoint.
4. Inspect refrigeration circuit for icing or blockage of coils.
5. Inspect piping and valves for leaks, damage, or deterioration.
6. Inspect automatic blowdowns for condition and proper operation.
7. Check separator element and air filter pressure differentials, as required.
8. Remove unit from service. Lockout/tagout unit.
9. Inspect electrical wiring and connections; tighten loose connections.
10. Clean condenser coils.
11. Change air filter and separator element.
12. Return unit to service.
13. Clean area around equipment.
14. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.4 Type: Air Handling Unit

(3 MO) AHU PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check controls and unit for proper operation.
3. Check for unusual noise or vibration.
4. Lubricate shaft and fan bearings.
5. Inspect exterior piping and valves for leaks; tighten connections as required.
6. Check operation of freeze-stat if required.
7. Inspect air filters and change as needed.
8. Clean area around equipment.
9. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) AHU PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided, if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

CONFINED SPACE - All potential hazards should be locked out and tagged out before any body part enters the space. Review with supervision if hazards can’t be locked out prior to entry or if new hazards may be introduced as a result of the work to be done.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check controls and unit for proper operation.
3. Check for unusual noise or vibration.
4. Lubricate shaft and fan bearings.
5. Inspect exterior piping and valves for leaks; tighten connections as required.
6. Check operation of freeze-stat if required.
7. Inspect air filters and change as needed.
8. Check temperature and pressure gauges for proper operation.
9. Record motor amperage readings.
10. Remove unit from service. Lockout/tagout unit.
11. Clean electrical wiring and connections; tighten loose connections.
12. Inspect condition of contacts and motor starters.
13. Check operation and clean dampers, louvers and shutters; lubricate all pivot points and linkages.
14. Inspect belts for proper tension and alignment. Replace/adjust as necessary.
15. Clean coils, evaporator drain pan, blower, motor and condensate drain piping, as required.
16. Return unit to service.
17. Lubricate motor bearings.
18. Clean area around equipment.
19. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.5 Type: Boiler, Gas

(1 MO) Boiler PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Verify that daily bottom blowdown is being performed.
3. Inspect all piping for leaks or damage; repair as necessary.
4. Inspect condition of safety pressure relief valve.
5. Test safety valve by lifting the safety valve try lever, with the boiler pressure at a minimum of 75% of the safety valve set pressure. Discharge steam for 5 sec to 10 sec.
6. Clean area around boiler.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 MO) Boiler PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect all piping for leaks or damage; repair as necessary.
3. Check operation and condition of safety pressure relief valve.
4. Check boiler operation through complete cycle, up to 30 minutes.
5. Test safety valve by lifting the valve try lever while the boiler pressure is at a minimum of 75% of the valve set pressure. Discharge steam for 5-10 seconds.
6. Clean area around equipment.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Boiler PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided, if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

CONFINED SPACE - All potential hazards should be locked out and tagged out before any body part enters the space. Review with supervision if hazards can't be locked out prior to entry or if new hazards may be introduced as a result of the work to be done.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect all piping for leaks or damage; repair as necessary.
3. Check operation and condition of safety pressure relief valve.
4. Check boiler operation through complete cycle, up to 30 minutes.
5. Test safety valve by lifting the valve try lever while the boiler pressure is at a minimum of 75% of the valve set pressure. Discharge steam for 5-10 seconds.
6. Inspect fuel system for leaks or damage.
7. Check main flame failure protection, positive fuel shutoff, and main flame detection scanner on boiler equipped with spark ignition. Clean ignition assembly where applicable.
8. Check for proper operation of control switches (i.e. steam pressure, hot water temperature limit, low water cut off, atomizing or combustion air proving, etc.).
9. Check feedwater system and feedwater makeup control and pump.
10. Check combustion controls, combustion blower, and damper modulation control.
11. Test combustion. Tune combustion controls to ensure efficient combustion at low, medium, and high fire.
12. Remove unit from service. Lockout/tagout unit.
13. Remove low water cut off. Clean and inspect and reinstall.
14. Check all indicator lamps and water/steam pressure gauges.
15. Check electrical panels and wiring to burner, blower, and other components.
16. Clean blower air-intake dampers, if required.
17. Check condition of flue pipe, damper, and exhaust stack.
18. Check water column sight glass and water level system; clean or replace sight glass, clean fire side of water jacket, if required.
19. Clean soot and ash from tubes and firebox.
20. Have boiler internally inspected by Water Treatment Professional.
21. Have required pressure vessel internal and external inspections performed by boiler inspector.
22. Return unit to service.
23. Check and lubricate burner, blowers, and motors as required.
24. Clean area around equipment.
25. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.6 Type: Building Automation System

(1 YR) BAS PM

Safety Notes:

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. For each control loop, check set point and compare to control point. Identify control loops that are not controlling to set point.
3. Calibrate all temperature and humidity sensors. Compare reading of each field sensor to the reading from a precision, calibrated hand-held temperature and humidity measuring device.
4. Verify smooth operation of all final control devices (valve actuators, damper actuators). Send signal through BAS to drive each device open and closed. Visually verify smooth operation of device from 0% to 100% and back to 0%
5. Verify proper operation of all freeze stats.
6. Verify proper cooperation between HVAC system and Fire Alarm System.
7. Inspect wiring in BAS control panels. Ensure wiring is neat, each wire is labeled, and each termination is tight.
8. Perform system backups on central computer(s). Ensure appropriate anti-virus software and operating system is up to date as recommended by BAS vendor.
9. Perform any required updates of BAS software.
10. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.7 Type: Cooling Tower

(1 MO) Cooling Tower PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise or vibration.
3. Inspect air inlet louvers
4. Check and adjust water level in basins
5. Check operation of make-up valve
6. Verify that water treatment testing being completed and chemical levels being maintained as per water treatment program.
7. Check and adjust bleed rate
8. Check belt condition, as required.
9. Clean area around tower.
10. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 MO) Cooling Tower PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Inspect cold water basin/spray nozzles.
4. Inspect unit finish.
5. Visually check fan for uniform pitch and ensure it rotates without obstruction.
6. Visually check drive alignment and belt tension, as required.
7. Lubricate fan shaft bearings and motor base adjusting screw.
8. Check and adjust water level in basins.
9. Check operation of make-up valve.
10. Check and adjust bleed rate.
11. Clean area around equipment.
12. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Cooling Tower PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided, if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

CONFINED SPACE - All potential hazards should be locked out and tagged out before any body part enters the space. Review with supervision if hazards can't be locked out prior to entry or if new hazards may be introduced as a result of the work to be done.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Inspect cold water basin/spray nozzles.
4. Inspect unit finish.
5. Visually check fan for uniform pitch and ensure it rotates without obstruction.
6. Visually check drive alignment and belt tension, as required.
7. Lubricate fan shaft bearings and motor base adjusting screw.
8. Check and adjust water level in basins.
9. Check operation of make-up valve.
10. Check and adjust bleed rate.
11. Remove unit from service. Lockout/tagout unit.
12. Drain basin and piping.
13. Inspect electrical wiring and connections for looseness or damage.
14. Inspect cooling tower and related piping for leaks, damage, or deterioration.
15. Check and lubricate gear drive as required.
16. Check and lubricate fan motor as required.
17. Check and unplug fan drain holes (hollow blade fans).
18. Inspect air inlet louvers.
19. Clean exterior or cooling tower of scale, dirt, and obstructions.
20. Clean and repaint any corroded surface.
21. Have tower internally inspected by Water Treatment Professional.
22. Refill basin and piping.
23. Return unit to service.
24. Clean area around equipment.
25. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.8 Type: Ductless Split-type Air Conditioner

(3 MO) Ductless SS PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical
exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check operating unit for excessive noise, vibration, or icing.
3. Wash re-usable screens or filters. Replace disposable filters.
4. Perform operational check of unit; make adjustments on controls and other components as required.
5. Clean area around equipment.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Ductless SS PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check operating unit for excessive noise, vibration, or icing.
3. Wash re-usable screens or filters. Replace disposable filters.
4. Perform operational check of unit; make adjustments on controls and other components as required.
5. Remove unit from service. Lockout/tagout unit.
6. Inspect electrical wiring and connections for looseness or damage.
7. Inspect condenser fan for looseness, damage, or dirt.
8. Clean condenser and evaporator coils, evaporator drain pan, blowers, fans, motors, and drain piping as required.
9. Return unit to service.
10. Clean area around equipment.
11. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.9 Type: Evaporator

(3 MO) Evaporator PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check operating unit for excessive noise, vibration, or icing.
3. Wash re-usable screens or filters. Replace disposable filters.
4. Perform operational check of unit; make adjustments on controls and other components as required.
5. Clean area around equipment.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Evaporator PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided, if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check operating unit for excessive noise, vibration, or icing.
3. Wash re-usable screens or filters. Replace disposable filters.
4. Perform operational check of unit; make adjustments on controls and other components as required.
5. Remove unit from service. Lockout/tagout unit.
6. Inspect electrical wiring and connections for looseness or damage.
7. Inspect condenser fan for looseness, damage, or dirt.
8. Clean condenser and evaporator coils, evaporator drain pan, blowers, fans, motors, and drain piping as required.
9. Return unit to service.
10. Clean area around equipment.
11. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.10 Type: Exhaust Fan

(6 MO) Exhaust Fan PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check motor and fan shaft bearings for noise, vibration, overheating.
3. Inspect belt tension and alignment.
4. Lubricate fan shaft bearings if required.
5. Clean fan and surrounding area.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Exhaust Fan PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check motor and fan shaft bearings for noise, vibration, overheating.
3. Replace belt(s), properly tension and align; adjust as required.
4. Check fan and motor sheaves and wear and replace if needed.
5. Check blower intake dampers, lubricate; if required.
6. Inspect electrical wiring and connections, for looseness or damage.
7. Record motor amperage readings.
8. Inspect condition of flex connections.
9. Lubricate fan shaft bearings if required.
10. Lubricate motor bearings.
11. Clean fan and surrounding area.
12. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.11 Type: Expansion Tank

(1 YR) Expansion Tank PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Examine exterior of tank including fittings, manholes, and handholes for leaks and signs of corrosion.
3. Inspect structural supports and insulation for damage or deterioration.
4. Inspect and clean any related sight glasses, valves, fittings, drains, and controls.
5. Clean area around unit.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.12 Type: Fan Coil Unit

(3 MO) Fan Coil Unit PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect against any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check fan coil unit for proper operation while running.
3. Clean drip pan and drain line with solvent.
4. Inspect air filters and change as needed.
5. Check operation after repairs.
6. Clean area around equipment.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Fan Coil Unit PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided, if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check fan coil unit for proper operation while running.
3. Clean drip pan and drain line with solvent.
4. Inspect air filters and change as needed.
5. Remove unit from service. Lockout/tagout unit.
6. Remove access panel and vacuum inside of unit and coils.
7. Inspect electrical wiring and connections for looseness or damage.
8. Check coils and piping for leaks, damage, and corrosion; repair as necessary.
9. Clean coil with solvent.
10. Replace access panel.
11. Return unit to service.
12. Check operation after repairs.
13. Clean area around equipment.
14. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.13 Type: Fan

(6 MO) Fan PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check motor and fan shaft bearings for noise, vibration, overheating.
3. Inspect belt tension and alignment.
4. Lubricate fan shaft bearings if required.
5. Clean fan and surrounding area.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Fan PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check motor and fan shaft bearings for noise, vibration, overheating.
3. Replace belt(s), properly tension and align; adjust as required.
4. Check fan and motor sheaves and wear and replace if needed.
5. Check blower intake dampers, lubricate; if required.
6. Inspect electrical wiring and connections, for looseness or damage.
7. Record motor amperage readings.
8. Inspect condition of flex connections.
9. Lubricate fan shaft bearings if required.
10. Lubricate motor bearings.
11. Clean fan and surrounding area.
12. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.14 Type: Motor

(1 YR) Motor PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided, if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

Task Instructions:

Check unit for proper operation, excessive noise or vibration.

1. Measure and record motor amperage.
2. Check ventilation ports and cooling fan for soil accumulation, clean if necessary.
3. Clean exterior of motor surfaces of soil accumulation.
4. Grease motor bearings, as required. Remove filler and drain plugs. Free drain hole of any hard grease. Add correct type and amount of grease. Run motor for 15 minutes, wipe off excess grease at drain hole and reinstall drain plug.
5. Check motor windings for accumulation of dirt or excess grease.
6. Check hold down bolts and grounding straps for tightness.
7. Inspect electrical wiring and connections; tighten loose connections.
8. Meg motor and record findings
9. Return unit to service.
10. Clean area around motor.
11. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.15 Type: Package Unit

(3 MO) Package Unit PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical
exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check operating unit for excessive noise, vibration, or icing.
3. Replace air filters.
4. Perform operational check of unit; make adjustments on controls and other components as required.
5. Inspect evaporator drain pan and drain piping. Clean as required.
6. Clean area around equipment.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Package Unit PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided, if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check operating unit for excessive noise, vibration, or icing.
3. Replace air filters.
4. Perform operational check of unit; make adjustments on controls and other components as required.
5. Inspect evaporator drain pan and drain piping. Clean as required.
6. During operation of unit, check refrigerant pressure; add refrigerant as necessary.
7. Remove unit from service. Lockout/tagout unit.
8. Inspect electrical wiring and connections, for looseness or damage.
9. Check compressor oil level; add oil as required.
10. Clean condenser and evaporator coils, evaporator drain pan, blowers, fans, motors, and drain piping as required.
11. Check tension, condition, and alignment of belts; replace or adjust as necessary.
12. Return unit to service.
13. Clean area around equipment.
14. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.16 Type: Pump

(3 MO) HVAC Pump PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

CHEMICAL HAZARD - Read Safety Data Sheet (SDS) for chemicals to be used. Review potential hazards and follow recommended precautions to protect from any chemical exposure.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Inspect piping and valves for leaks, damage, or deterioration.
4. Lubricate pump bearings as required.
5. Clean exterior of motor surfaces of soil accumulation.
6. Clean area around equipment.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) HVAC Pump PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise, or vibration.
3. Inspect piping and valves for leaks, damage, or deterioration.
4. Clean exterior of motor surfaces of soil accumulation.
5. Lubricate pump bearings.
6. Using strobe scope, inspect coupling while pump is operating for looseness.
7. Measure and record motor amperage.
8. Remove unit from service. Lockout/tagout unit.
9. Check motor ventilation ports and cooling fan for soil accumulation, clean if necessary.
10. Check motor windings for accumulation of dirt or excess grease.
11. Check hold down bolts and grounding straps for tightness.
12. Inspect electrical wiring and connections for looseness, or damage.
13. Meg motor and record findings.
14. Inspect coupling for wear, damage, or looseness.
15. Clean and repaint any corroded surface.
16. Return unit to service.
17. Lubricate motor bearings, as required. Remove filler and drain plugs. Free drain hole of any hard grease. Add correct type and amount of grease. Run motor for 15 minutes, wipe off excess grease at drain hole and reinstall drain plug.
18. Clean area around equipment.
19. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.17 Type: Tank

(1 YR) Tank PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Examine exterior of tank including fittings, manholes, and handholes for leaks and signs of corrosion.
3. Inspect structural supports and insulation for damage or deterioration.
4. Inspect and clean any related sight glasses, valves, fittings, drains, and controls.
5. Clean area around unit.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.18 Type: VFD

(1 YR) VFD PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect exterior for damage, missing covers, missing bolts or open holes.
3. De-energize, lockout / tagout unit.
4. Clean dust and dirt from all surfaces inside of enclosure.
5. Inspect electrical wiring and connections; tighten loose connections.
6. Inspect components for damage or discoloration.
7. Return unit to service.
8. Clean exterior with dry cloth.
9. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.6.19 Type: Ultraviolet Germicidal Light

(Daily) Ultraviolet Germicidal Light PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visual inspection of lamp area, housing, and cables
3. Verify indicator lights and system status.
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(Weekly) Ultraviolet Germicidal Light PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Clean external surfaces
3. Check airflow and fan noise
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 MO) Ultraviolet Germicidal Light PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Clean UV-C lamp or quartz sleeve
3. Test safety systems (interlocks, timers, sensors)
4. Check lamp operating hours
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 MO) Ultraviolet Germicidal Light PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Measure UV output with approved meter
3. Inspect internal components
4. Replace filters if applicable
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Ultraviolet Germicidal Light PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Replace UV-C lamps
3. Replace quartz sleeve gaskets
4. Full system inspection by technician"
5. Replace ballasts or LED drivers
6. Recalibrate sensors and UV meters
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.7 Classification: Interior Construction

6.7.1 Type: Door

(6 MO) Door PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Operate door to verify smooth operation. Adjust and service as needed.
2. Inspect the frame and supporting structures.
3. Inspect hardware; hinges, latch keeper, lock. etc. Apply graphite where needed, wipe off excess.
4. Inspect glass, putty, or retaining pieces. Correct any deficiencies.
5. Touch up paint as needed.
6. Clean area around the equipment and place it back into operation
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.7.2 Type: Security Door (Swing)

(Daily) Security Door (Swing) PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visual inspection: Check for loose, damaged, or missing hardware
3. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(Weekly) Security Door (Swing) PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Operational test Locks & Latches: Verify smooth locking/unlocking and latch engagement
3. Check operation Lever Handles / Knobs: Ensure handles return to neutral position
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 MO) Security Door (Swing) PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Lubricate hinges: Apply manufacturer-approved lubricant sparingly
3. Inspect & adjust Door Closers: Check closing speed, latch speed, and backcheck
4. Inspect alignment Strike Plates: Verify latch fully engages strike
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 MO) Security Door (Swing) PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect & test Panic / Exit Devices: Ensure smooth operation and proper latch retraction
3. Fasteners: Tighten screws on all hardware components
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(6 MO) Security Door (Swing) PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Cylinders & Cores: Clean keyway and lubricate with dry graphite or approved product
3. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Security Door (Swing) PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with Functional test
2. Functional test: Verify fail-safe/fail-secure operation and power loss response
3. Code compliance inspection: Inspect per NFPA 80 & AHJ requirements
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.7.3 Type: Door Hardware

(Daily) Door Hardware PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visual inspection: Check for loose, damaged, or missing hardware
3. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(Weekly) Door Hardware PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Operational test: Verify smooth locking/unlocking and latch engagement
3. Check operation: Ensure handles return to neutral position
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 MO) Door Hardware PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Lubricate hinges: Apply manufacturer-approved lubricant sparingly
3. Inspect & adjust: Check closing speed, latch speed, and backcheck
4. Inspect alignment: Verify latch fully engages strike
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 MO) Door Hardware PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect & test: Ensure smooth operation and proper latch retraction
3. Tighten fasteners: Tighten screws on all hardware components
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(6 MO) Door Hardware PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Cylinders & Cores: Clean keyway and lubricate with dry graphite or approved product
3. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.7.4 Type: Pneumatic Door

(Daily) Pneumatic Door PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Operational check: Cycle door open/close; verify smooth and controlled movement
3. Safety Devices: Verify sensors, edges, and emergency release function
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection

(Weekly) Pneumatic Door PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visual inspection: Check for damage, misalignment, or obstructions
3. Inspect for leaks: Listen for leaks; inspect hoses and fittings for wear
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect operation: Check for smooth travel, seal wear, and alignment
3. Inspect & service: Drain moisture, clean or replace filters, verify pressure settings
4. Lubricate moving parts : Lubricate hinges, pivots, and linkages per manufacturer guidance
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Fasteners, Mount, Tighten, inspect, and Check mounting hardware for looseness or fatigue
3. Control Valves & Solenoids, Function test, Verify proper response and timing
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Air Supply System: System service: Check compressor output, dryer function, and air quality
3. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection

6.8 Classification: Landscaping

6.8.1 Type: Flag Pole

(1 YR) Flag Pole PM

Safety Notes:

Review the work you about to perform. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check the operation by raising and lower the flag.
3. Check and clean the winch.
4. Check the cabling for fraying. Replace as needed.
5. Tighten and lubricate all fittings, snap hooks, and weights.
6. Inspect the flag. Replace as needed.
7. From the ground, do a visual inspection of the pole, including the truck and ball.
8. Clean area around pole.
9. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.9 Classification: Laundry

6.9.1 Type: Dryer

(1 YR) Dryer PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Operate equipment to verify smooth operation. Adjust and service as needed.
3. Turn off and unplug unit. Inspect plug and wire for fraying or damage.
4. Inspect any hoses and connections for leaks, damage or deterioration.
5. Clean exterior of unit.
6. Clean area around the equipment and place it back into operation
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.9.2 Type: Washer

(1 YR) Washer PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Operate equipment to verify smooth operation. Adjust and service as needed.
3. Turn off and unplug unit. Inspect plug and wire for fraying or damage.
4. Inspect any hoses and connections for leaks, damage or deterioration.
5. Clean exterior of unit.
6. Clean area around the equipment and place it back into operation
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.9.3 Type: Linen Press

(Daily) Linen Press PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Clean press surfaces: Remove lint, debris, and residue from press plates and surrounding area
3. Safety check: Verify emergency stop, guards, and interlocks function properly
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(Weekly) Linen Press PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect plates: Check for damage, uneven wear, or residue buildup
3. Visual inspection: Check for leaks, hose damage, or abnormal noises
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 MO) Linen Press PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Bearings & Moving Parts: Lubricate per manufacturer specifications
3. Inspect controls & wiring: Check for loose connections or overheating
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 MO) Linen Press PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check operating pressure: Verify pressure settings meet manufacturer requirements
3. Fasteners & Frame: Tighten loose bolts, inspect frame integrity
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(6 MO) Linen Press PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Hydraulic Oil / Air System: Check oil condition or air filtration and replace as needed
3. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1YR) Linen Press PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Machine Calibration: Verify pressing force, timing, and temperature (if heated)
3. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.10 Classification: Life Safety

6.10.1 Type: Automated External Defibrillator

(1 MO) AED PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Inspect for structural defects and verify mounting is secure.
2. Check the battery status indicator.
3. Verify all support equipment (2 pairs of disposable gloves, towels, safety razor, 2 barrier devices, extra electrode pads, a pair of scissors, biohazard disposal bag, AED incident report form and a pen) is present and in good condition.
4. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.10.2 Type: Eye Wash / Safety Shower

(1 WK) Eye Wash / SS PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Verify access to eyewash is clear and not obstructed,
2. Inspect condition of emergency eyewash / shower.
3. Plumbed emergency eyewash / showers must be activated for weekly to verify correct operation
4. Self-contained eyewash / showers must be visually checked weekly to determine if the flushing fluid needs to be changed or supplemented
5. Clean area around unit.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.10.3 Type: Eyewash

(1 WK) Eye Wash / SS PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Verify access to eyewash is clear and not obstructed,
2. Inspect condition of emergency eyewash / shower.
3. Plumbed emergency eyewash / showers must be activated for weekly to verify correct operation
4. Self-contained eyewash / showers must be visually checked weekly to determine if the flushing fluid needs to be changed or supplemented
5. Clean area around unit.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.11 Classification: Plumbing

6.11.1 Type: Backflow Preventer

(1 YR) Backflow Preventer PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

Task Instructions:

1. Backflow preventer should be tested annually by a certified tester and completed test form submitted to city.
2. Check unit for proper operation, leaks or damage.
3. Secure the incoming potable water line(s).
4. On reduced pressure zone backflow preventers, perform the following tests in accordance with the manufacturer's specifications, using the appropriate test kit: (a) Test check valve number 2 for tightness against reverse flow. (b) Test gate valve number 2 for tightness.(c) Test check valve number 1 for tightness.(d) Test operation of pressure differential relief valve.
5. Service the first and second checks. CAUTION: If the check valve is spring loaded, do not remove the spring retainers. Consult the manufacturer's instructions for proper servicing. (a) Carefully remove screws, cover, and check. (b) Disengage the disc and spring assembly into individual components in accordance with manufacturer's instructions. Remove any embedded foreign objects, and inspect for corrosion, worn seals, etc. Clean or replace the assembly as required.(c) Clean or replace seals as necessary. Apply a light coating of manufacturer's specified and FDA approved lubrication prior to installation of seals. (d)Reassemble the check valve module in reverse order. (e) Repeat for second check.
6. Service the relief valve. CAUTION: Springs may be loaded. Strictly comply with manufacturer's instructions.(a) Remove bolts, cover, diaphragm, and relief valve piston assembly per manufacturer's instructions.(b) Clean or replace wiper seal, piston "O" ring, and relief valve disc as required. Apply appropriate lubricant to "O" ring per manufacturer's specifications prior to reinstallation. (c) Inspect bottom spring assembly. If defective, replace entire unit. Do not attempt to remove the spring.
7. Following the manufacturer's procedures, test and calibrate the device.
8. Clean area and remove all debris.
9. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.11.2 Type: Drinking Fountain

(3 MO) Water Fountain PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect drain tube for damage and make sure it is fitted correctly
3. Check the condenser fins and clear dust and debris as required.
4. Clean area around the equipment and place it back into operation
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.11.3 Type: Irrigation Controller

(1 YR) Irrigation Controller PM

Safety Notes:

Check with operating or area personnel for deficiencies.

Task Instructions:

1. Inspect exterior for damage, missing covers, missing bolts or open holes.
2. Inspect electrical wiring and connections; tighten loose connections.
3. Clean out panel with clean, dry, pressured gas.
4. Clean exterior with dry cloth.
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.11.4 Type: Pump, Circulator

(3 MO) Pump, Circ PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise or vibration.
3. Inspect piping and valves for leaks, damage or deterioration.
4. Lubricate oil filled motor bearings, as required. Oil Bearings: Add oil to all motor bearing oil cups, using quantity and type of oil indicated on pump or per manufacturers' recommendations.
5. Lubricate pump bearings. Oil Bearings: Add oil to pump oil port(s), using quantity and type of oil indicated on pump or per manufacturer's recommendations.
6. Clean pump motor exterior
7. Check general condition of the pump
8. Clean area around pump.
9. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 YR) Pump, Circ PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Check unit for proper operation, excessive noise or vibration.
3. Inspect piping and valves for leaks, damage or deterioration.
4. Inspect coupling while pump is operating for looseness.
5. Measure and record motor amperage.
6. Check motor ventilation ports and cooling fan for soil accumulation, clean if necessary.
7. Clean exterior of motor surfaces of soil accumulation.
8. Lubricate motor bearings. Oil Bearings: Add oil to all motor bearing oil cups, using quantity and type of oil indicated on pump or per manufacturers' recommendations. Grease Bearings: Remove oil fill and drain plugs. Free drain hole of any hard grease. Add correct type and amount of grease. Run motor for 15 minutes, wipe off
9. excess grease at drain hole and reinstall drain plug.
10. Lubricate pump bearings. Oil Bearings: Add oil to pump oil port(s), using quantity and type of oil indicated on pump or per manufacturer's recommendations.
11. Check hold down bolts and grounding straps for tightness.
12. Inspect electrical wiring and connections, for looseness or damage.
13. Inspect any gauges installed with this pump. Verify that they are reading correctly.
14. Inspect coupling for wear, damage or looseness.
15. Clean and repaint any corroded surface.
16. Return unit to service.
17. Clean area around pump.
18. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.11.5 Type: Shower

(Daily) Sink PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visual inspection for debris or damage
3. Check water flow for both hot/cold (if applicable)
4. Ensure proper shutoff function on push-button or metered faucet
5. Clean exterior stainless surfaces with approved disinfectant
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(Weekly) Shower PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect aerator (if present) for mineral buildup
3. Confirm fixture stability—ensure no looseness at mount points
4. Check for leaks at faucet, supply lines, and drain
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 MO) Shower PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Descale faucet heads and drain areas using stainless-safe cleaners
3. Inspect supply lines for corrosion or vibration
4. Check metering or push-button faucet timing for correct shutoff
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 MO) Shower PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect stainless steel for dents, cracks, or seam fatigue
3. Check drain flow and clear any slow-drain conditions (from chase side)
4. Inspect anti-ligature features for correct function
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(6 MO) Shower PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Service faucet internals (cartridges, metering valve, diaphragms)
3. Lubricate approved internal components (manufacturer-specific)
4. Inspect behind-wall chase plumbing for leaks and corrosion
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.11.6 Type: Sink

(Daily) Sink PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visual inspection for debris or damage
3. Check water flow for both hot/cold (if applicable)
4. Ensure proper shutoff function on push-button or metered faucet
5. Clean exterior stainless surfaces with approved disinfectant
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(Weekly) Sink PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect aerator (if present) for mineral buildup
3. Confirm fixture stability—ensure no looseness at mount points
4. Check for leaks at faucet, supply lines, and drain
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(1 MO) Sink PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Descale faucet heads and drain areas using stainless-safe cleaners
3. Inspect supply lines for corrosion or vibration
4. Check metering or push-button faucet timing for correct shutoff
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(3 MO) Sink PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect stainless steel for dents, cracks, or seam fatigue
3. Check drain flow and clear any slow-drain conditions (from chase side)
4. Inspect anti-ligature features for correct function
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(6 MO) Sink PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Service faucet internals (cartridges, metering valve, diaphragms)
3. Lubricate approved internal components (manufacturer-specific)
4. Inspect behind-wall chase plumbing for leaks and corrosion
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.11.7 Type: Sump Pump

(1 YR) Pump, Sump PM

Safety Notes:

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect and clean bail, floats, rods, and switches.
3. Verify float and switch operate as designed.
4. Inspect and lubricate motor and pump as required.
5. Inspect check valves.
6. Inspect electrical wiring and connections, for looseness or damage.
7. Clean area and remove all debris.
8. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.11.8 Type: Tank, Storage

(1 YR) Tank, Storage PM

Safety Notes:

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Examine exterior of tank including fittings, manholes, and handholes for leaks and signs of corrosion.
3. Inspect structural supports and insulation for damage or deterioration.
4. Inspect and clean any related sight glasses, valves, fittings, drains, and controls.
5. Clean area around unit.
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.11.9 Type: Water Softener

(1 YR) Water Softener PM

Safety Notes:

LOCK OUT – TAG OUT - Identify potential hazards (electrical, mechanical, etc.) before starting job. Prior to any task that exposes hazard, isolate hazard, release stored energy, LOCK OUT and TAG OUT, and verify hazard has been eliminated.

ELECTRICAL HAZARD - Work near live electrical parts should be avoided if possible, and should only be performed by trained personnel wearing PPE and using tools appropriate for the arc flash hazard.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect electrical wiring and connections, for looseness or damage.
3. Inspect piping and valves for leaks, damage or deterioration. Operate manual valves through their full range.
4. Perform functional test of controls, control valves and regeneration sequence. Verify smooth operation of controls.
5. Have elution study performed to determine the effectiveness of the softener.
6. Clean area around unit.
7. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

6.11.10 Type: Toilet

(Daily) Toilet PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Visual inspection for debris, buildup, or leaks
3. Check for normal flush and consistent water flow
4. Clean exterior surfaces with approved disinfectant
5. Ensure drain flow appears normal
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection.

(Weekly) Toilet PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Test flush strength and timing
3. Test sink faucet/push-button shutoff
4. Inspect aerator (if present) for buildup
5. Check all visible fasteners and fixture stability
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection

(1 MO) Toilet PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Remove mineral buildup using stainless-safe cleaners
3. Inspect supply lines for leaks or corrosion
4. Check flushometer/valve components
5. Inspect venting for odor issues
6. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection

(3 MO) Toilet PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Inspect fixture for dents, seam wear, or metal fatigue
3. Perform drain performance test
4. Inspect anti-ligature features for proper condition
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection

(6 MO) Toilet PM

Review the work about to be performed. Identify PPE required to perform the work safely. Use the correct tools and ensure tools are in good condition.

Task Instructions:

1. Check with operating or area personnel for deficiencies.
2. Service internal valve/cartridge/diaphragm components
3. Lubricate approved parts
4. Inspect behind-wall chase plumbing for leaks or corrosion
5. Document all findings on the work order. Initiate a corrective work order for any deficiencies noted during this inspection