

# MAINTENANCE PERFORMANCE WORK STATEMENT

# I. PURPOSE

This PWS is referenced in the Contract to describe Contractor's commitments for the maintenance of government-furnished facilities (land, buildings, structures and equipment) as prescribed by FAR 45.5. The PWS represents the total contractor responsibilities under this FAR requirement and under the terms of this contract. The end product for this PWS is a detailed maintenance plan that will be evaluated during the selection process and will become part of the final contract. This maintenance plan will be updated as required, but at a minimum it will be reviewed and updated each calendar year. Any intellectual, real or personnel property created or procured as a result of this PWS is the property of the Government.

<u>Narrative Instructions</u>: The Government's objective is to maintain safe, secure, and environmentally stable facilities using best commercial practices at the lowest possible cost. Toward this end, the Government has undertaken a storage consolidation effort with the incumbent with a resulting reduced endstate on or about 30 Sep 2010. In addition, the Government intends to undertake further consolidations thru 2015 to further empty storage igloos and magazines. The result will be the closure of storage structures – and entire groups/areas – streamlining operations and maintenance. Empty storage and administrative structures shall be classified as "Modified Caretaker" unless otherwise classified.

Resulting buildings and structures will be identified predominantly as either "active" (A), "Inactive-Maintained" (I), "Modified Caretaker" (MODC), or "Military Training" (MILT). The successful offeror shall have the ability – with the approval of the contracting officer in writing – to further adjust the use and resulting classification of these structures to further enhance efficiency and reduce costs. Because Hawthorne Army Depot is in a desert environment with a stable climate, it is the Government's intent to have as little done to Modified Caretaker buildings or areas as possible – with the understanding that these structures/areas may be reactivated at a later date with renovations done at that time.

# II. DEFINITIONS

A. The terms defined are used in the Maintenance Program. Should there be a conflict between government and industrial usage, the government shall decide, define or clarify the conflict. The terms used herein have been adapted and established as common definitions for local usage.

B. "Maintenance" - Any action required to preserve and maintain a facilities in such condition that it may be safely and effectively utilized for its designated or designed purpose.

Specific types of maintenance are:

- 1. "Preventive Maintenance" The regularly scheduled inspection, lubrication, adjustment and minor repair required to maintain the equipment in a safe operational condition and to detect and correct any malfunctions which could lead to breakdown and/or major repairs (i.e., abnormal maintenance).
- 2. "Scheduled Maintenance" The planned maintenance resulting from preventive maintenance inspections beyond the scope of preventive maintenance work. Scheduled maintenance also includes that maintenance work which can be pre-planned based on actual and/or planned use.
- 3. "Unscheduled Maintenance" That maintenance requiring immediate attention which, if not corrected, shall have a serious effect in the safety and efficiency of plant operations or to halt further deterioration of the facility. This will be immediately reported to the ACO staff when discovered.

- 4. "Normal Maintenance" is defined as the recurrent day to day scheduled systematic care of production and support equipment such as lubricating, adjustment, servicing and inspection. It shall also include normal parts replacement that shall be required to forestall excessive wear, repair, malfunction or deterioration.
- 5. "Abnormal Maintenance" is defined as excess of \$100,000.00 for any (each) particular occurrence. The contractor shall be, responsible for 100% of the first \$100,000.00 in accordance with the provisions of the contract. The Government shall fund 100% of the cost above \$100,000.00 per each occurrence for production and support equipment in active use, subject to the availability of funds. If it is determined that the contractor failed to maintain or operate the property in accordance with this PWS or operating procedures (demil procedures, as an example) they will be responsible for 100% of the repair or replacement. The Government reserves the right of final determination regarding maintenance or repair of plant equipment when the repair cost exceeds, 25% of the acquisition cost.
- D. Building/Equipment Status
  - 1. "Active" (A) building or piece of equipment that is being used in the performance of supply or service contracts. Preventive maintenance is performed at least annually on each piece of active equipment (may be longer interval on facilities).
  - 2. "Active-no maintenance required" equipment only which needs no preventive maintenance.
  - 3. "Active-gage" gages that are calibrated by Contractor.
  - 4. "Inactive-Maintained" (I) Equipment or facility that is required under the government emergency planned mission for the facility (also called "standby" and "laidaway").
  - 5. "Modified Caretaker" (MODC) facilities that have been closed and winterized appropriate in a controlled abandonment. No maintenance beyond lightning protection to wood structures is to be done on these facilities until such time as they are scheduled to be reopened.
  - 6. "Excess" (E) equipment and facilities that has been determined as excess to Contractor needs and is in the disposal process. If contractor shows as active, but doesn't use or maintain the equipment it shall be determined to be excess.

- 7. "Cessation" building or piece of equipment that has been determined as excess to Contractor needs and is pending determination of need by the Government.
- 8. "Military Training" (MILT) these are buildings and facilities that the Armed Forces are currently using and paying for to conduct ad hoc training exercises that fall outside the official mission of Hawthorne Army Depot. These requirements are defined and paid for under separately defined and priced scopes of work as required.
- E. "Improved Grounds" That portion of the plants such as lawns, drill fields, athletic and recreational fields, cemeteries, including landscaping, windbreak plantings and surface drainage systems inclusive of faculties use tenants.
- F. "Other than Improved Grounds and Industrial Leased Lands" That portion of the Plant such as fire breaks, safety and security zones, road and rail shoulders, utility clear zones, dams for ponds and lakes inclusive of facilities use tenants.
- G. "Agricultural Lands" includes crop land and pasture land that is out leased.
- H. "Maintenance Request/Work Order" A work instruction/authorization that enables a craftsman to perform "maintenance" returning equipment or facilities to their original functional condition.
- I. "Work Request/Work Order" A work instruction/authorization that enables a craftsman to perform "non-maintenance" work such as modifications and improvements (these could result from a deficiency noted during a preventive maintenance check).
- J. "Days" as used in this PWS means calendar days.
- K. "Elevators" A hoisting and lowering mechanism designed to transport material and or personnel from one elevation to another.
- L. "Material Lifts" Those hoisting and lowering mechanisms not designated as elevators.
- M. "Allowable variances" Because hours and/or mileage can accumulate at a faster rate than planned, shop work load must be leveled from time to time, scheduled dates may fall on non-scheduled work days and possible work stoppages.
- N. "Contractor's Scheduled Work Plan" this plan describes all types of maintenance to be performed by the contractor at the facility regardless of direct, indirect or ARMS funding. The contractor shall provide a quarterly progress report to the ACO staff.

O. "Prioritization Schema" - Deficiencies discovered during annual building inspections shall be prioritized per the following classifications and approved by Government.

## Priority 1

A deficiency that if not corrected shall have an immediate detrimental effect. These deficiencies are primarily safety and environmental issues.

- 1A Corrective actions to be completed within 30 days
- 1B Corrective actions to be completed within 30 90 days

### **Priority 2**

Minor deficiencies that can be corrected with minimum labor and material expenditure and pose no immediate detrimental impacts. These deficiencies shall be considered routine scheduled maintenance activities within Facilities Management/Engineering.

- 2A: Corrective actions to be completed within 6 to 9 months
- 2B: Corrective actions to be included in next budget cycle / calendar year

#### Priority 3

Deficiencies that require engineering support and/or large expenditures of labor and material to correct. These deficiencies shall have a detrimental impact that shall be revealed at some time in the future.

3A: Items to be included for unsolicited JMC project work

3B: Items to be submitted as a project

- P. "Corrective action category Schema" Correction of deficiencies shall be categorized in according to but not limited to the following guidelines and examples.
  - a. Effect on safety of operating personnel

## Priority 1

Deficiencies that pose an immediate threat to personnel such as; emergency exit doors in occupied areas that are inoperable, leaks (any source) that pose a hazard to workers or equipment and building components (internal or external) that are loose to the point of falling.

#### Priority 2

Deficiencies that pose no immediate threat to personnel but if left unattended shall do so within the next 3 to 9 months such as; loose building components and exit doors in occupied areas that are difficult to operate.

#### Priority 3

Deficiencies that pose no immediate threat to personnel but have the potential to do so within a year such as; deteriorated components (interior or exterior) that could become loose or fall, concrete surfaces that are cracked or spalled and deteriorated roofing.

b. Effect on production/service activity

### Priority 1

Deficiencies that impact operations in a manner that workers and/or operations must significantly adjust their efforts such as; roof leaks onto equipment or work areas and using a different egress route than that normally used.

### Priority 2

Deficiencies that impact operations in a manner that workers and/or operations must adjust their efforts such as; roof leaks onto equipment or work areas and using a different egress route than that normally used. This includes having to adjust a routine to accommodate the deficiency.

### Priority 3

Deficiencies that pose no immediate threat to operations but have the potential in the future to do so such as; deteriorating roofs and structural members, deteriorating utilities and deteriorating concrete surfaces.

# c. Effect on short-term use

### Priority 1

Deficiencies that shall not allow operations to continue in a particular facility until corrected. Can be either safety or production/service activity related deficiencies.

### Priority 2

Deficiencies that impact operations but not to a point where productivity or efficiency are significantly impacted.

### Priority 3

Deficiencies that present no impact to operations but have the potential to do so in the future if not corrected.

d. The overall level of maintenance versus the production/service activity level

## Priority 1

Deficiencies that shall not allow operations to continue in a particular facility until corrected. Can be either safety or production related deficiencies.

#### Priority 2

Deficiencies in a high traffic/ high level of staffing production/service facility with personnel working inside are a higher priority than ramps, magazines and other facilities that are not occupied nor have minimal pass through traffic. Personnel safety and structural integrity shall determine the priority of repairs for facilities without personnel working inside

#### Priority 3

Deficiencies in a low traffic/low level of staffing production/service facility with personnel working inside are a higher priority than ramps, magazines and other facilities that are not occupied nor have minimal pass through traffic. Personnel safety and structural integrity shall determine the priority of repairs for facilities without personnel working inside

## e. Effect on long-term use

## Priority 1

A deficiency that if not corrected shall continue to deteriorate. Repair at near future date (3 months) shall substantially (\$5000 as defined by Government inspection and estimate) incur more costs.

### Priority 2

A deficiency that if not corrected shall continue to deteriorate. Repair at a future date (3 years) shall substantially (\$5000 as defined by Government inspection and estimate) incur more costs. This includes deficiencies such as deteriorated plumbing, roof, rotting wood frame and timbers, foundations or other structural integrity issue that, if not corrected, shall continue deterioration until the facility is no longer usable or the future repair costs increases.

## Priority 3

A deficiency that if not corrected shall continue to deteriorate that future repairs shall incur more costs such as; deteriorated plumbing, roof, rotting wood frame and timbers, foundations or other structural integrity issues.

## III. Standards of Maintenance

- A. Maintenance of Active Facilities and Equipment:
  - 1. ACO/Commander shall approve what the contractor has proposed as best commercial practice prior to the implementation of that practice.
  - 2. Preventive Maintenance is the basis of our active maintenance program. Scheduled Inspections and the minor adjustment and repair of deficiencies detected during the inspections prevent major breakdowns and increase the life of facilities and equipment. Contractor shall maintain and follow an established schedule for preventive maintenance. At a minimum, active equipment shall receive preventive maintenance at least annually. Contractor shall submit a report of completed preventive maintenance inspections and schedules to the Government Property Administrator (GPA) quarterly.
  - 3. Areas around buildings shall be maintained in a condition which shall eliminate fire hazards. Removal of debris and tree trimming shall be performed when they present a hazard. The plant entrance, administrative area and other areas of high public visibility shall be maintained at a higher level. Custodial services shall be performed to best commercial practices.
  - 4. Active facilities and equipment shall be maintained to a degree to assure continued utilization during the anticipated period of operation and to permit Layaway after cessation of operations, without major rehabilitation.

- 5. Costs for maintenance of active equipment and facilities shall be borne by the benefiting production or service contracts either as a direct charge or an allocation of overhead provided that it is IAW the Contractor's Disclosure Statement and doesn't violate Cost Accounting Standards (CAS).
- C. Maintenance of Inactive-Maintained Facilities

These are facilities with incidental or part-time use that are maintained by the contractor (example would be a loading dock used monthly). The contractor shall maintain these facilities on a schedule developed and submitted to the Government for approval. The maintenance on Inactive-Maintained structures shall be in conformance with requirements depicted above for Active facilities.

D. Maintenance of Modified Caretaker Facilities and Areas

The contractor shall undertake no maintenance of facilities identified as Modified Caretaker except in the case of existing lightning protection for wooden structures. Existing lightning protection for wooden structures shall be maintained to prevent fire damage to facilities which may reactivated at a future date. In addition, in conjunction with fire and emergency scope of work, the contractor shall maintain sufficient water pressure to hydrants in modified caretaker areas to ensure the ability of the fire department to contain and fight fires. The contractor shall inspect facilities at the site of meteorological/seismic events, intrusions or other unusual occurrences to inspect for damage. Any noted damage shall be photographed and submitted to the contractor officer so that the Government may decide whether to fund the repair or restoration of any impacted facilities.

E. Maintenance of Excess Equipment

Contractor shall not maintain excess equipment or facilities unless otherwise notified by the Government. They shall report excess equipment for screening and disposition to GPA and HQ.

- **IV. Maintenance Planning and Procedures** 
  - A. The Contractor is responsible for the administration and development of maintenance procedures including the Preventive Maintenance Program. At a minimum, this shall include a scheduled work plan. The contractor shall provide an annual progress report to the ACO staff.
  - B. A detailed preventive maintenance instruction for each active piece of equipment and each active facility shall be maintained. Schedules for systematic inspection and service of equipment shall be established based on equipment manuals, lubrications orders or other maintenance publications. These publications are advisory; actual intervals and service activities shall be based on best business practice and our specific use of the

equipment/facility.

- C. A commercially available computer program for scheduling preventive maintenance shall be maintained and utilized. This program shall be available to the government staff to review preventive maintenance schedules.
- D. The preventive Maintenance Program for Facilities shall be documented and responsible personnel shall be trained on how to complete and document the maintenance preformed.

- E. Work Requests shall be prepared to complete the work. These requests shall also be used as inspection documents to ensure completion of the work.
- F. Contractor shall keep files of the work performed for 48 months after completion of the work. Electronic record keeping format is acceptable; the preferred electronic format is a searchable PDF format.
- G. Non-scheduled maintenance, normally requiring immediate action, shall be requested directly by the person recognizing the need of immediate maintenance action. Work requests shall be prepared and used to perform this work.
- V. Maintenance Program for Active Facilities
  - A. Maintenance of Water Systems
    - 1. Preventive Maintenance Instructions for each item of potable water pumping and chlorination equipment shall be prepared by Contractor.
    - 2. Potable water shall be protected from contamination from process water systems.
    - 3. The Fire Department shall be responsible for performing flow tests during inspection of fire hydrants and maintaining test records.
    - 4. The Fire Department shall annually visually inspect valves controlling fire protection water supply (above ground only) and maintain test records.
    - 5. The Water Distribution system shall be inspected on an exception basis. Specific items to be inspected shall be selected based on the possibility of failure and the consequences of that failure. These inspections shall comply with all federal, state and local regulation.
    - 6. Post Indicator Valves shall be tested by full closure and opening to insure that the valve is operable.
    - 7. Apply best commercial processes to the cleaning, draining, structural inspection, disinfecting, refilling, and cathodic protection of storage tanks. The interior and exterior of water tanks shall be painted IAW applicable American Water Works Protection (AWWA) Standards, and sound commercial practices.

- 8. The Contractor is responsible for the development and overall administration of the water storage structure Maintenance Program. They shall coordinate the subcontracting of inspection, repair and adjustment of cathodic protection systems, and structural inspection and maintain records of such inspection.
- 9. Contractor shall keep test records of the tests performed for 48 months after completion of the test.
- 10. <u>Modified Caretaker Structures/Areas</u> water systems within structures shall be drained and closed in accordance with best commercial practice for the winterization of buildings to prevent breakage from freeze damage and allow for the reactivation of these systems at a later date. The contractor shall establish a schedule to periodically inspect winterized utilities for damage. In addition, in conjunction with fire and emergency scope of work, the contractor shall maintain sufficient water pressure to hydrants in modified caretaker areas to ensure the ability of the fire department to contain and fight fires.
- B. Maintenance of Sewage Systems
  - 1. Inspection of the sewage treatment system shall be scheduled and performed at least annually.
  - 2. Inspection of sewage collection systems shall include sanitary sewers, septic tanks, pumping stations and storm sewers on an annual basis.
  - 3. Industrial Waste Treatment Facilities shall be inspected annually.
  - 4. An operation log for industrial waste treatment and sewage treatment plants shall be maintained and available for review/inspection.
  - 5. The industrial and sewage systems shall be maintained to comply with all federal, state and local regulation.
  - Modified Caretaker Structures/Areas sewage systems within structures shall be closed and capped in accordance with best commercial practices for the winterization of buildings and to allow for the reactivation of these systems at a later date. The contractor shall establish a schedule to periodically inspect winterized utilities for damage.
- C. Maintenance of Electrical Systems

- 1. Each generator and associated battery shall be scheduled for inspection; service and testing under load, at least once every quarter. Batteries shall be checked for electrolyte level, specific gravity and cleanliness. A record of inspection and test shall be maintained.
- 2. The Electrical Control System shall be inspected annually. This inspection shall include relay inspection and calibration, clean relays, check mechanical operation, check electrical operation with multi-amp tester and calibrate to predetermined current trip setting and record. This includes all meters installed to monitor utility usage.
- 3. Annual Oil Circuit Breaker Inspection shall include operate breaker and check operating mechanism, lightly oil all moving operating parts, clean breaker compartment and test insulating oil. If under 18KV, drain and replace with new oil.
- 4. Records of inspection shall be maintained and available for review/inspection.
- 5. Electrical Distribution Poles shall be inspected every five (5) years. "Reject" poles shall be marked and replaced within that calendar year. Poles that meet minimum standards shall be treated with preservatives. Records shall be maintained of the inspection and treatment and available for review/inspection.
- 6. Electrical Transformers shall be inspected every five (5) years. The Contractor is responsible for this electrical transformer maintenance program. In the event of failure and/or repair of components, pole, etc., a visual inspection shall be made and documented. Repairs and/or replacement shall be completed as required and IAW 40 CFR.
- 7. Maintenance and repairs of exterior lights shall be accomplished on an on-call or see basis. Exterior lighting required for safety and security shall be checked by Security Patrols and Safety personnel.
- 8. <u>Modified Caretaker Structures/Areas</u> electrical systems to structures shall be deenergized in accordance with best commercial practices to eliminate fire and electrical hazards and to allow for inexpensive and rapid the reactivation of these systems at a later date.
- D. Maintenance of Boiler and Heating Plants
  - 1. Semiannual inspections and test of high pressure steam boilers (above 15 psi) and all high temperature water (HTW) boilers (does not include heat exchangers and process

equipment)(above 250 degrees Fahrenheit (°F) temperature) in active use shall be performed by a qualified outside agency.

- 2. The maintenance program shall include cleaning, inspecting, testing, repairing, rebuilding, brushing, tube cleaning, tube rolling, replacement of parts and re-factory work.
- 3. During each operating shift, qualified personnel, as assigned by the Contractor, shall perform a visual inspection of each boiler and auxiliary equipment. Deficiencies are reported and corrected as required. All actions are recorded in the operating log located in each boiler plant.
- 4. Exterior inspection shall be performed during the scheduled annual overhaul of each boiler and shall be performed by the personnel assigned by the Contractor. The Annual Inspection and Over-haul Check list shall be utilized for this inspection.
- 5. Internal inspection shall be performed during the scheduled annual overhaul of each boiler and shall be performed by personnel assigned by the Contractor. Depending upon the type of boiler, the internal inspection shall be performed utilizing the appropriate check list.
- 6. Outside agency inspection of high pressure boilers shall be performed.

Three types of inspection shall be rendered by the outside agency upon request: Type A) Internal and external inspection; Type. B) Internal and external inspection followed or proceeded by external inspection while under hydrostatic test; and Type C) External inspection while under steam pressure.

The results of these inspections shall be recorded and records shall be maintained and provide to ACO staff.

- 7. Personnel assigned to the daily operation of the low pressure boilers, under 15 PSI, shall conduct a visual inspection of each boiler and auxiliary equipment. Deficiencies are reported and corrected as required. All actions are recorded in the operating log located in each boiler plant.
- 8. A schedule of inspections of all boilers shall be established alternating internal and external inspections semi-annually. Inspection check lists and records of repair shall be maintained.
- 9. The Steam Distribution System shall be inspected semi-annually. Records of repair shall be maintained. Items inspected shall include pipe lines, insulation, hangers, anchors, stop valves, pressure reducing valves, traps, flash tanks, support poles and

meters used to monitor usage.

- 10. Temperature and Humidity Control Equipment shall be inspected monthly for proper operation. This inspection shall be visual, audio and functional.
- 11. Compressed Air Generation equipment shall part of the preventive maintenance program. Intervals and scope of maintenance shall be established based on equipment environment and use, as well as best business practice.
- 12. Low Pressure Vessels (below 500 psi) shall be inspected with particular attention given to exterior condition of receiver and to devices, such as gages, unloaders, safety relief devices, rupture disks, vacuum valves, fittings and shut-off valves. A visual inspection of internal surfaces of the vessel should be performed, if possible, to detect corrosion or deterioration.

Safety relieve devices (valves) shall be tested annually by the contractor. Testing and calibration shall be in accordance with the Contractor's "Calibration Procedure for Unfired Pressure Vessels Testing Program for Pressure Relief Valves", Lab. No. ML-31. After testing, safety valves shall be set, sealed and retained by the Contractor.

- 13. <u>Modified Caretaker Structures/Areas</u> boilers and heating plants shall only be placed in modified caretaker with the permission of the government with scope of work clearly agreed to utilizing best commercial practice and to allow for inexpensive and rapid the reactivation of these systems at a later date.
- E. Elevators and Material Lifts in active buildings shall be inspected and maintained by a licensed elevator service. There shall be monthly inspections for operation and annual safety inspections. Elevators and Material Lifts in Modified Caretaker areas shall be closed and locked in accordance with best commercial practice to allow for reactivation at a later date.

- F. Inspection of Grounds shall be on-going in active and maintained areas only, with maintenance performed IAW sound commercial practices to preclude hazards and avoid land damage whenever possible. Inspection of Grounds in modified caretaker areas shall only occur on a periodic basis to insure general integrity of the land.
- G. Heating and Air Conditioning (HVAC) Systems in all active areas shall be operated, maintained and repaired IAW American Society of Heating, Refrigerating and Air Conditioning Engineers' (ASHRAE) standards and sound commercial practices. HVAC systems in Modified Caretaker areas shall either be winterized in such a manner as to allow reactivation at a later date or removed in their entirety if portable and stored.
- H. Surface items in active areas such as roads, walks, parking areas, bridges, fences and barricades shall be inspected and repaired, remarked or re-surfaced based on safe and serviceable condition and sound commercial practices. All repairs or modifications shall be inspected and approved by the Government. Surface areas in Modified Caretaker areas shall be repaired or maintained as needed to insure safety and security with priority to bridges and fences.
- I. Building Inspections and Maintenance Ammo and Non Ammo
  - 1. Each active building shall be inspected IAW the maintenance SOW every 5 years. As an exception, long span timber trusses, heavy timber framing, masonry unit pilasters, or columns supporting structural frames in active buildings shall be inspected at least every two years. Deficiencies shall be noted, but not limited to, for the following areas:
    - a. foundations
    - b. exterior walls
    - c. interior walls and ceilings
    - d. doors and windows
    - e. painting
    - f. roof framing, surfaces and accessories
    - g. floors, floor coverings and stairs
    - h. trusses
  - 2. The inspector shall write a report on each inspection which classifies the deficiencies and makes recommendations for repair/upgrade.
  - 3. Contractor shall write work requests for deficiencies according to the following

# criteria:

- a. Effect on safety of operating personnel.
- b. Effect on production.
- c. Effect on short-term use.
- d. The overall level of maintenance versus the production activity level.
- e. Effect on long-term use.
- 4. Active Igloos/Magazines: The contractor shall maintain active Igloos/Magazines in accordance with established safety procedures and standards to include lightning protection and sufficient cover to guard against mass-detonation/propagation hazards.
- 5. Modified Caretaker Igloos/Magazines: The contractor shall insure that these structures are locked and shall visually inspect for structural integrity once every 3 years. No lightning protection inspection or maintenance is require on empty igloos/magazines.

- J. Railroad trackage shall be maintained and inspected IAW TM 5-628 for the specified class of trackage on only such trackage that is considered 'active'. Track that is placed in a Modified Caretaker status shall be so marked with a sign and appropriately closed as a safety measure inspection and repair of track shall only be required at time of reactivation.
- K. Bridges and other drainage structures: Inspections shall be made annually and maintenance and repair performed accordingly in active areas. Inspection and rating for weight carry capability shall be performed in accordance with current DOT regulation or at a minimum of every three (3) years. An installation map of all such structures shall be kept current and indicate location, conditions and weight capacity. Perform annual operational inspections of the Black Beauty Reservoir and the Cat Creek Dam. This inspection will include the spillway, outlets, earth embankment, and concrete structure looking for seepage, cracking, scour, and the presence of burrowing animals and tree and brush growth on embankments. The use an inspection checklist and dated photographs is recommended. Results of the annual inspection will be provided to Government Staff for review. For Modified Caretaker areas, priority shall be given to inspecting bridges to insure safe passage of vehicles for maintenance and security purposes. Drainage structures shall be maintained to the extent necessary to prevent damage or destruction from flooding/flash floods to Modified Caretaker structures which may be reactivated at a later date.

The requirement for these maintenance standards are contained in Army Facilities Management, Army Regulation 420-1, 2Nov 2007, this regulation applies to the active army installations for basic policies and specific responsibilities for conduct and management of installation level public work activities which include facilities engineering, housing and environmental support.

- VI. Maintenance of Active Equipment
  - A. Maintenance of Material Handling Equipment, Engineering and Construction Equipment, Railroad Equipment, and Industrial Equipment:
    - 1. Contractor shall be responsible for maintaining equipment in a safe and serviceable condition.
    - 2. Operators of equipment shall be responsible for preoperational inspections and reporting deficiencies.
    - 3. Contractor shall include all active equipment in the Preventive Maintenance program as described in Section IV. The program shall consist of systematic scheduling that shall make equipment available for inspections, lubrications, adjustments, and repair at not less than yearly intervals.

- 4. Non-scheduled maintenance shall be performed any time that a visual or operation inspection determines that continued use of equipment without repair shall cause further damage or that the equipment is unsafe to operate.
- 5. Equipment listed in TB 43-0211 shall be enrolled in the Army Oil Analysis Program. At a minimum all active locomotives shall be enrolled in the Army Oil Analysis Program and shall be sampled at least once a year. If the equipment is in heavy use the sampling shall be adjusted to meet the requirements listed in DA PAM 738-750.
- B. Maintenance of Automotive Equipment
  - 1. The Preventive Maintenance Program is determined and scheduled by the GSA Center.

Maintenance shall be scheduled and performed in a manner that shall keep all equipment in a safe and serviceable condition.

- 2. The intervals of PM Services for fire trucks shall be twice a year.
- 3. The intervals of PM Services for semi-trailers and other types of automotive equipment shall be at least semi-annually. As an exception to the requirement for semi-annual inspections, nontactical vehicle semi trailers shall be inspected and maintained annually, a record of driver daily inspections shall be maintained for one (1) year as referenced in 49 CFR 396.11, and, if used to transport explosives, these semi trailers shall receive a monthly DD Form 626 inspection by a qualified individual, a record of which shall be maintained for one (1) year as required by AMC-R-385-100, Safety Manual, Chapter 1, paragraph 22-6, 26 Sep 1995.
- 4. Extensive Repairs shall be made at the direction of the GPA for vehicles.
- 5. An automotive inspector shall be responsible for the performance of inspections associated with vehicle damage.
- 6. Safety inspections of each motor vehicle shall be made at least annually. Deficiencies which impair safety of operation shall be corrected before returning the vehicle to operational status.
- C. Maintenance of Hand Tools shall be in accordance best business practices.
- D. The Information Technology Systems Inspection program (telephony, ADP, fiber optics', etc.) shall consist of systematic scheduling of inspections, lubrications, adjustments and repair (at least annually). Non-scheduled maintenance shall be performed any time that

the inspection of systems determines that maintenance or repairs are needed to keep systems operable.

- E. Maintenance of Gages and Scales: Gages and scales are included in the calibration system that sets a schedule for each gage and scale to be inspected, calibrated, and maintained.
- F. A Lifting Device program shall be implemented as required by TB 43-0142.
- G. Compressed Air Generation equipment shall be part of the preventive maintenance program. Intervals and scope of maintenance shall be established based on equipment environment and use, as well as best business practice and TB 43-0151 guidance.
- H. All active Petroleum Aboveground Storage Tanks (AST) and Underground Storage Tanks (UST) shall be inspected and maintained in accordance with all local, state and Federal regulation. This includes all piping either above or below ground. At a minimum all tanks shall be inspect for leaks at least once a year and all associated pipes shall be pressured tested at the same time. A written record of this test shall be maintained for the life of the tank. These records shall be available for Government review or inspection.