GENERAL MAINTENANCE STANDARDS; SITE AND UTILITIES 3264

(Sept. 1999)

SITE 3264.1

(Sept. 1999)

Roads, Paved Areas, Parking Spurs
All paving shall be maintained with the appropriate materials (AC, concrete, aggregate base etc.) in order to maintain its structural integrity. It should also be clear of any oils, greases, fuel, fire retardant; chemicals and spills of any nature, which can enter storm drainage system.

Drains
Open with no erosion or scouring at outlets.

Culverts
Open and clean with no erosion or scouring at outlets, drop inlets clear.

Known Slide and Slip-out Areas
Provided with horizontal drains and terraced cutbanks.

Asphalt Concrete Dikes
In place, continuous with drainage outlets properly spaced.

Debris Retention Structures
In good repair, functioning and with no accumulation of debris.

Pavement
No holes, no vegetation; roadway shoulders well formed, free of vegetation; no erosion of slopes, striping in good condition, well defined; no evidence of shifting or settlement of subgrade; surfaces tight, no undulation of pavement, no raveling of edges.

BRIDGES 3264.2

(Sept. 1999)

Overall Appearance
Traveled way clear of obstructions. Exposed surfaces protected. Stream bed unobstructed, free of litter.

Piers and Abutments
Intact; should show no evidence of displacement; no undercutting or other damage due to water action; connections to structure sound and protected.

Timber Work Piles
Caps, bracing, girders, floor beams, planking, railings, curbs, truss work and miscellaneous wood items - sound and free of fungus or insect damage; protected with wood preservatives, paint or other appropriate coatings.

Steel works
Should show no distortion; joints tight; all rivets, bolts, welded sections intact; all surfaces should be well protected with paint and should show no evidence of corrosion. Cables and wire rope items should show proper tension and alignment and should be well-lubricated; no rust or broken strands evident.

Miscellaneous Items: Fire protective equipment in place and operable; lighting fixtures lamped and operable; directional, warning, and weight limit posting signs properly placed, legible and adequate. Approaches and paths well defined.

LANDSCAPE 3264.3
(Sept. 1999)

Planted Areas
All plant materials must be appropriate and healthy. Control insects, rodents and diseases; irrigation and drainage facilities must be functioning properly, soil analysis of all areas should be recorded, trees and shrubs should be neatly pruned and controlled, lawn areas trimmed and free of weeds.

Irrigation System
Sprinkler heads, hydrants, valves, and controls should all be in working order with adequate water pressure. Drainage ditches must be open and functioning.

Bulkheads, Retaining Walls, and Headers
Timber work should show only minor deterioration; masonry and concrete surfaces should be continuous with neat joints, offsets and grade changes.

Fences
Tight, properly aligned posts vertical, limited corrosion on metal work. Gates operable, barriers, wheel stops all in place.

Signs
Properly located, legible, unobstructed, in good repair.

Vegetation
Trimmed back from roadway, no hazardous or weakened trees near parking areas or roadways.

Vehicle Wash Rack
Graded to preclude rainwater from flowing across the slab. Sloped a maximum of 1% to allow the settling of solids from entering the water treatment components. Valved to exclude rainwater falling on the slab from entering the treatment process. Components of the wash rack shall include: Wash Slab; freezeless water hydrant; truck grate drain; automated rain valve; interceptor; oil/water separator; effluent sampling well. No vehicle wash effluent shall be discharged to any onsite sewage disposal system. If the facility has a municipal sewer district obtain permission from the sewer district to discharge to the sewer. In the event that there is no sewer district or the sewer district will not accept the wash water discharge, all vehicle wash water must be recycled. If a recycle system is required call Sacramento Technical Services for information on systems with the lowest maintenance and best cost benefit ratio.

Hose Wash Rack
Neat, in good repair, placed in unobtrusive location, no visible rot, splits, breaks, protective finish in good shape.

Corporation Yard
Fence in good repair, of sufficient height to limit view and protect objects stored. Strong gate matching fence, with hasp, staple and lock. Storage of all materials shall be such that no oils, greases, chemicals of any nature and debris, enter the storm drain system.

Incinerator
In good repair, all openings adequately screened (1/4" maximum), and the area within 10 feet of the exterior of the incinerator free and clear of all flammable material.

Garbage Control
Cans must be clean and have tight fitting lids. Where an enclosure for garbage is provided, it must be well ventilated (fly screened), with smooth concrete floor, having a floor drain connected to a sewer. Steam or hot water and cold water must be provided for cleaning cans. All screens, siding, doors, floors must be in good repair, clean and maintained in such a manner to be vermin and insect proof.

Recreation Facilities
Playing fields, courts, backstops and other recreational facilities, are to be in good repair, clean, free of weeds, stone and other objects harmful to those using the area.

WATER SUPPLY AND DISTRIBUTION 3264.5

(Sept. 1999)

Well and Spring Areas
Protected with adequate fencing; identified; have positive controlled drainage; plant growth trimmed back.

Tanks
Clean, free of algae with vent screens intact; no appreciable leakage, valves identified, water level indicators functioning properly; structurally sound.

Reservoir Areas
Protected with substantial fence in good repair, and with vegetation trimmed back. Levees, dikes, dams, embankments protected against erosion; spillway channels, ditch linings, aprons intact.

Signs
Those identifying domestic water supply conspicuously placed, legible, and in good repair.

Water Distribution Mains
Locations marked and recorded on "Master Site Plan" with materials and approximate ages noted. All valves, valve boxes, pressure regulators, hydrants, meters in good operating condition; identified and accessible. Hose bibs in hazardous areas shall be protected.

Water Treatment Plant
Filters, pumps, circulators, tanks, piping systems, controls, conditioners, disinfecting equipment, adequate supply of treatment chemicals on hand and stored in a protected area to preclude the possibility that they enter the storm drainage system, adequate facilities to properly dispose of waste water generated from the operation of the plant, identified with regular maintenance schedule posted; health department test records on file. Structure in good repair.

Fire Protective Water System
Clearly marked and identified, piping, hydrants, valves and sprinkler heads in good repair.

Collection System
Location of mains, laterals, lifts, valves, sumps, etc. marked and recorded on "Master Site Plan". Manholes clear, sewer lines carrying normal flow with no obstructions; lift pumps operating within normal temperature range; controls properly set and functioning; gravity lines properly supported and covered.

Septic Tanks and Leaching Fields
Vents, manholes, "T" pipes easily available for scum and sludge inspection rodding, ladders, etc. in place; scum at design level, air space unobstructed; sludge level well below inlet fitting; combined volume sludge and scum less than one half total volume; at least 12" earth cover over tank top; no leaks at inlet, septic tank or outlet fittings; effluent sewer tight to distribution box, box clear, gates sound and in place; leaching bed or lines functioning with no surfacing of effluent. Record of inspections posted, made minimum once per year. Record of last septic tank pumping on file. Spray lines operating as designed and in compliance with RWQCB and or county health department.

Flow Meters
Inspect flow meters daily to verify operation; enter meter readings on log sheet; compare latest reading with the previous day's result. If there is very large difference (1.5 to 2 times normal), monitor meter carefully for several days to verify operation. Remove, repair and recalibrate as necessary; check for leaks; recalibrate meters at intervals as recommended by manufacturer.

Sewage Disposal Plant
All structures protected; roofs sound; fences, gates, doors, access walks, bridges, stairs, ladders secure and in good repair. All mechanical equipment functioning properly, clean and painted, motors operating within design range; controls and safety devices properly set and functioning; up-to-date record of ordinary maintenance for all mechanical equipment posted; premises free of accumulations of unused equipment, materials or debris. Maintain up-to-date record of health department tests of effluent or sludge on premises. All equipment identified, flow diagrams posted, operating manuals available to operating personnel.

Sewage Lagoons and Evaporative Ponds
Maintain proper depth of fluid in lagoons and ponds. Control insect life, mosquitoes, aquatic plants, weeds, rodents and odors. Check for storm erosion of levees and wave erosion on interior levees. Storm water must be diverted to protect embankments, and to prevent overload of the system.

Record flows, water depth, unusual odors and the appearance of the ponds on a daily basis. Weather conditions, including temperature and precipitation should also be noted.

Fences shall be in good repair and warning signs posted. All valves, flow-metering devices, gates, chutes and other distribution equipment, shall be in good repair, and where applicable, well lubricated and locked to prevent unauthorized operation.

Sewage Effluent Spray Lines
Must be operated and maintained in accordance with design procedure schedules. Operating and maintenance instructions, along with schedules, shall be readily available to operator of system. Spray heads shall be cleaned before each cycle when spray heads and ground are dry. Area of coverage of spray shall be checked periodically. Weeds and vegetative growth shall be cut and trimmed. Pumps and pump motors shall be maintained in accordance with manufacturer's instructions. Exposed lines, fittings and valves shall be checked for leaks and corrosion. All equipment shall be kept in good repair.

GAS: LPG, NATURAL **3264.7**
(Sept. 1999)

L. P. Gas

Warning Signs
Tanks and cylinders over 60-gallTanks and cylinders over 60-gallon capacity shall have the word "Flammable" painted on each side with letters 1-1/2 inches high for tanks of 500-gallon capacity or less, or 5-inches high for tanks exceeding 501-gallon capacity.

In addition warning signs with the words "NO SMOKING OR OPEN FLAMES PERMITTED WITHIN * ____ FEET" shall be painted in letters at least 1-1/2 inches high in sharply contrasting colors, on each stationary tank or on a sign posted adjacent to the tank.

60 to 500 gallons - 10 feet

501 to 1,200 gallons - 25 feet

over 1,201 gallons - 50 feet

Pressure Relief
Keep vapor spatial area free from ignition source around vapor relief system. This area to be clear for a minimum of 7 feet, including operational activities that may involve similar risk.

Permit to Operate Required for all tanks, except 30 gallons or less, or cylinders, inspected and maintained in accordance with ICC regulations. Permits are issued by the State of California Department of Industrial Relations, Division of Occupational Safety and Health, Pressure Vessel Unit after an inspection of the tank.

Painting
Tanks and piping shall be kept well-painted, rust and corrosion free.

Labeling
All tank openings shall be labeled (fill, vent etc.)

Liquid Petroleum Gas

Leaks
LP Gas leaks may be detected by odor or by excessive fuel consumption. A running log should be kept on the amount of LPG consumed, and quantities compared to like facilities. Valves clean and not corroded. Gage glasses clear and intact. Suspected leaks shall be tested with a soap solution. DO NOT USE a flame to locate a leak!

Seismic Protection
Seismic valves must be installed, reset valves if tripped and keep in good working order.

Natural Gas

Leaks
Natural gas leaks may be detected by odor or by excessive consumption. A history of past quantities of fuel consumed compared to present consumption will provide a good indication. Suspected leaks shall be tested with a soap solution. DO NOT USE a flame to locate a leak!

Piping
Pipes shall be painted or wrapped, typically yellow in color. No corrosion shall be present on lines. No kinks shall be present on flexlines and the lines not concealed.

Seismic Protection
Seismic valves must be installed, reset valves if tripped and keep in good working order.

ELECTRICAL SUPPLY AND DISTRIBUTION 3264.8

(Sept. 1999)

Generating Plant
Premises orderly and well kept and painted; all equipment identified, well housed; structures protected and adequate; all equipment and controls operating within design temperature ranges; up-to-date record of normal temperature ranges; up-to-date record of normal maintenance posted at each major piece of mechanical equipment. Operating manuals available to operating personnel. Fuel sources for generators shall be in compliance with appropriate section regarding type of fuel (i.e. Natural Gas, LPG, etc.).

Main Service and Distribution System
Feeders, primary and secondary mains, services of adequate size; poles sound, safe, clear of excessive plant growth; distribution transformers of adequate capacity; underground conductors and services well protected with adequate cover; all underground lines located, marked and recorded on "Master Site Plan." Record of normal maintenance of distribution system available for review by authorized personnel.

Radio and Intercom
Systems orderly; antenna and other weather exposed portions free from corrosion, securely mounted, and functioning properly. Outside speakers free of corrosion and protected from the elements; wiring neat and secure; observe clearances, remove excessive sag in communication lines. Similar guidelines prevail for telephone lines and cables. Install appropriate and sufficient drip loops, grounding connections, and lightning protection to protect installation.

AUTOMOTIVE FUEL 3264.9

(Sept. 1999)

Fuel Storage Tanks

Underground Tanks
Implement the "California Underground Storage Tank Regulations" as directed by the "local agency having jurisdiction". Obtain a permit from the "local agency having jurisdiction."

Maintain fuel quantity reconciliation logs on the CDF standard form.
Service and maintain the fuel leakage monitoring equipment, test monthly.
Annual inspection of monitoring devices shall be performed. File fuel leakage reports and fuel quantity reconciliation reports as required by the local agency.

Above Ground Storage Vaults
Maintain tanks in conformance with the Tanks requirements of the local fire marshal and the NFPA Standards for above ground fuel storage tanks. Keep records in the form of fuel quantity reconciliation logs on the CDF standard form.

Waste Oil Storage Tanks
Store waste oil in above ground storage tanks conforming with the requirements of the local fire marshal and in compliance with California Health and Safety Code Division 20 and EPA standards.

Pumps
Pumps should be checked periodically for leaks around gaskets and fittings, motors oiled in accordance with manufacturer's instructions, and checked for excessive operating heat.

Spill Prevention, Control and Containment Plan
Prepare fuel spill prevention and containment plan in accordance with EPA requirements as delegated to the state or local agency having jurisdiction See attached sample.

Oil Storage
Oil storage areas are to be kept clean and all flammable waste removed from the area. No drains to storm or sanitary sewer system shall be installed in the storage area. In areas where drains are existing they shall be permanently sealed to prevent spills from entering. Barrels and containers should be periodically checked for leakage. All vents to storage area shall be clean and open, allowing circulation of air and removal of volatile vapors.

Flammable Liquid Storage
All containers are to be made of metal, with tight fitting caps, labeled for ready identification, and neatly stored in like groupings, preferably on metal shelves or in lockers. No drains to storm or sanitary sewer system shall be installed in the storage area. In areas where drains are existing they shall be permanently sealed to prevent spills from entering.Structure Must be of adequate size and maintained in accordance with design criteria. Any modifications, even of a minor nature, shall be cleared through Sacramento Technical Services. Unauthorized changes in the structure could cause the building to be reclassified to comply with the codes, and more important, inadvertently be the cause of a fire or explosion.

Electrical Safety
Wiring shall be explosion proof or vapor proof in accordance with applicable building, electrical, fire and safety codes. Only electrical equipment designed to be used within the gas and oil building is to be used, all other electrical facilities removed. Light bulb enclosures shall be explosion proof; are to be clean and bright with sound gaskets; ground wires on all grounded fixtures complete, well attached and free from defects.

Truck Filler, Water
Valve must not leak; visible pipe and fittings be sound, free of leaks and corrosion. Winter protection is to be installed at locations where "filler" is used during cold weather.

Air Compressor
All hose and fittings must be in good repair, the permit to operate posted, along with maintenance schedule; moisture from tank should be drained in accordance with manufacturer's instructions. Belts in good condition and guarded, and compressor motor operating at the proper temperature, motor and tank protected from vehicular damage. Operational warning signs in place. All airlines should be Schedule 40 galvanized steel pipe or Schedule 80 PVC. Compressor and motor lubrication shall be conducted per manufacturer’s specifications. Pressure relief valves tested and test results recorded on the maintenance schedule.

FORMS AND/OR FORMS SAMPLES: RETURN TO ISSUANCE HOME PAGE FOR FORMS/FORMS SAMPLES SITE LINK.

(see next section)

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