BART ELEVATOR MAINTENANCE SCHEDULE 2011

DIS #

LOCATION : UNIT : _____
EMPLOYEE NAME : ____ Enter the date when each item is completed

ITEM		INSPECTION CODE METHOD		CYC	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	0 C T	N O V	D E C	
1	1 Emergency Phone Check Handset and Hands Free phone.		1, 4	Insure phone rings in station booth and rolls over to Central when not picked up by Station Agent.	В												
2	Shaft Doors Car Doors	Check sills for obstructions. Inspect gibs and hanger rollers for proper alignment and unusual wear. Check for loose hardware. Lubricate as necessary.	1, 2, 3, 4	Keep felt ollers saturated and clean. Replace bottom guides/gibbs if worn.	В												
3	Controller, Main Contactors and Auxiliary Relays	Check all relays for freedom of movement, dust, dirt, contact discoloration, pitting or burning and loose connections. Check ribbon connectors and terminal strips. Inspect copper and carbon contacts for wear. Inspect pivots for wear.	1, 3, 4	Clean controller. Insure all boards, relays, ribbon connectors and terminal strips are securely fastened. Check for burned components. Do not lubricate any parts of contactors. Insure all components are operating properly.	В												
4	Car and Hall Key Switches & Pushbuttons	Check: for broken buttons, missing Braille plates, burned out lamps, key switches, overhead lighting, emergency stop button & bell, valid State Permit and ceiling fan operation	1, 2, 3, 4	Check for proper operation of all buttons, lamps, key switches, gongs, PI's, overhead lighting, emergency lighting and overhead ceiling fan.	В												
5	Machine Room	General Cleanliness, Legible Wiring Diagrams, Ventilation - windows etc. Fire Extinguisher Expiration Date	3	Clean, Sweep & Remove debri. Transportable Oil containers must have double containment	М												
6	Machine & Generator Motors (traction)	Check oil level in bearing reservoir. Feel motor for Overheating. Check for excessive noise or vibration. Examine commutators for high mica. Undercut if necessary. Do not use brush-seating stone. Clean hoist motor and MG set.	1, 2, 3, 4	Check Ball Bearings relief plugs & relief hole. Remove any hardened grease. While motor is running add grease until expelled through relief hole. Run motor for 20 mins. Check and address all leaks.	м												
7	Pump Unit (Hydraulic Note: Piston (Ram)	Check oil tank level with car at bottom >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	1, 3, 4	Fill to minimum oil level Tightened to 1/64 slack per inch of pully diameter Replace "0" rings or gaskets as required >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	М												
8	Brake	Check piston packing head for excessive leakage Check lining for wear and glazing. Insure brake is engaging, and adjust as necessary.	1, 3, 4	Rotate pivot pins. Apply a drop of oil on pivot points or in holes provided.	м												
9	Car/Cwt & Gov. Cables (Traction Only)	Inspect for worn or broken strands, dryness and rust spots. Inspect shackles and spring for cracks. Check cables for equal tension.	2, 4	If cables are dry, apply a thin coat of lubricant. Remove excessive rust deposits. NOTE: Do not lubricate governor cables.	М												
10	Interlocks, Pick up rollers & Car Door Zone Lock	Check contacts for pits & oxidation. Check linkage for tightness. Adjust locks for proper clearances. Inspect rollers.	1, 2, 3, 4	Lubricate and wipe dry all pivot surfaces. Check each landing for proper operation.	М												
11	Landing System	Landing System Components: Selector Tape, Mounting Hardware, Guides, Reader and Switches	1, 3, 4	Inspect Selector Tape for proper tension & corrosion. Insure magnets & switches are clean, secure & operating properly.	М												
12	Car Door Operator(s), Motor, Linkage, Belts Gate Switches Etc.	Inspect for cleanliness and for loose hardware. Inspect control contacts for pitting and general wear and tear. Check for smooth operation and for obstructions or debris.	1, 2, 3, 4	Adjust door opening and closing for smooth operation. Check linkage and lubricate all bushings as necessary. Check belt tension.	М												
13	Car Door Clutch, Edge Detectors & Saf -T-Edge	Inspect retraction rollers and cables for wear, inspect pivots for wear. Check detector edges for proper operation.	1, 2, 3, 4	Clean and lubricate all pivots & pins. Check door detector & Nudging for proper operation.	М												
14	Car & Cwt. Rollers or Shoes	Inspect shoes for wear and proper lubrication. Inspect rollers for wear, tension and proper clearance.	1, 2, 3, 4	Wipe clean & adjust for proper clearance and tension. Replace worn inserts / rollers as required.	М												
15	Emergency Lighting	Check emergency lights for proper operation.	1, 3, 4	Press test button and check to see if lights turn on. Replace batteries as required.	М												
16	Motion Detector	Check for proper operation.	1, 4	Trigger motion sensor. Check that car responds to next level.	М												
17	Camera Equipment	Check if camera and enclosure equipment is intact.	1, 4	Inspect camera enclosure and window. Report any damages.	M												
18	Fire Service	Check Phase I & Phase II Fire Service operation.	1	Turn on Phase I at designated landing. After car(s) return to landing, test car(s) for proper Phase II operation.	М												
19	Elevator Pit	Check pit equipment: Pit switch, Lights, Scavenger pump, oil absorbent pads, drain/sump, GFCI, Sheaves, etc	1, 2, 4	Remove all debris & check oil absorbent pads. Pour 5 gallons of water into sump or drain to verify proper operation.	М												
20	Governor & Tension Sheave (Traction Only)	Check for corrosion, obstructions, vibration and bearing noise. Check linkage for binding.	2, 3, 4	Grease with pressure gun until expelled at hub. Drop of oil at pivot pins in holes provided.	Q												
21	Safety linkage (Traction Only)	Inspect links and pins for freedom of movement.	3, 4	Clean and Lubricate all pivot points with a few drops of oil.	Q												
22	Sheaves and Bearings	Check Machine Room, Car and Hoistway Sheaves for noise, vibration and sufficient lubrication. Inspect drive sheave grooves for unequal wear.	1, 2, 3, 4	Remove relief plug in spider hub. 8 Strokes of pressure gun in fitting and in sheave bearing.	Q												
23	Gearbox	Check oil level in gear housing. Check for backlash. Inspect ring gear for wear. Inspect gaskets and seals for leaks.	1, 2, 3, 4	Fill oil to center of worm.	Q												
24	Shaft Limit Switches	Inspect contacts for pits & oxidation. Check for smooth operation.	1, 2, 3, 4	Drop of oil on pivot & roller pins.	s												
25	Rails	Inspect splice plates for loose bolts. Inspect rails for nicks & burns and joints for smoothness.	2, 4	Fill rail lubricators or brush on slip-it. No lubrication for roller guides. Inspect for alignment and smoothness. File as necessary.	s												
26	Traveling Cables	Inspect for breaks & scuff spots.	4	Check traveler and cable supports	s												
27	Safety (Traction Only)	Check clearances between rail & gripping face of wedges or jaws. Refer to O.E.M.	4	Lubricate all pivots with a few drops of oil.	А												
28	Gearbox Oil Replacement	Inspect for oil contamination (water, metal etc.)	2, 3, 4	Drain oil and replace.	Α												
29	Counterweight	Inspect for loose or broken weights. Measure Run-by.	1, 3, 4	Tighten clamp, replace broken weights. Minimum Bottom Counterweight Run-by shall not be less than 6 inches.	Α												

BART ESCALATOR MAINTENANCE SCHEDULE 2011

LOCATION:	UNIT:	DIS#
EMDLOVEE NAME.		Enter the data when each item is completed

EMPLOYEE NAME: Enter the date when each item is completed CODE CYC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC Brake function, stopping distance, switches, pad wear 1. 3. 4 М Clean machine room area 3 М Controller, Check RELAY'S & Tighten Connections 1, 3, 4 М 1, 3, 4 М Emergency brake operation External gears, check for wear & lube or fill reservoir 1, 2, 3, 4 М Gear box, lube & check seal condition 1, 2, 3, 4 М Handrail condition, clean quides & check rubber tire 1, 3, 4 М Handrail sprocket's & drive chain tension; lube М 1, 2 Handrail newells, rollers & idler bearings 1. 3. 4 М 0 Primary drive chain, switch, tension, lube, check length 1. 2 М Sprocket tightness on spline 1, 3, 4 М Adjust novatex boards & replace as necessary 1, 4 Q Brake, disassemble, clean, lube pivots & adjust 1, 2, 3, 4 Q Bull gear pillow block, sprockets, bearings & zirk fittings 2, 3, 4 a Main breaker, check disconnect switch hardware 1. 4 a 1, 2, 3, 4 Governor, Drag switch assembly, Anti-Reversal Switch Q Change gear box oil S 3 Check motor coupling 1, 3, 4 S Lubricate drive motor bearings 1, 2, 3 S Fire Extenguisher Exchange (Expiration Date) Α Axle to circle track /Splice track deminision В 1. 3. 4 М Step Chain switches М 1 0 Bottom carriage wave bars, rollers & bearings 1, 2, 4 М Bottom carriage tension & sprockets 1. 4 М Step chain lube NOTE: O&K & Fujitec performed Bi - Monthly М 1, 2, 3, 4 Step chain rollers, flange couplings or sleeves 1, 2, 4 М Step trail rollers 1.4 М Left & right up thrust cams & switches 1.4 М Е Check oil absorbent pads & Sump or Drain operation 1 Q Clear wellway & adjacent common pit areas D Α Step to skirt clearance 1, 3, 4 М М Step hardware 1, 4 Step demarcation strips & Lights Е 1, 3, 4 М T-bars or Tabs 1, 3, 4 М S Tread boards & Risers 1. 3. 4 М Access cover hardware & level of cover to floor 1, 4 М Clean pit pans NOTE: Clean O&K oil seperators 1 М Handrail inlets & switches 1, 3, 4 М Comb segments & step indexing 1, 3, 4 М Key switches, emergency stop buttons, Signage 1, 4 М Remote / Pendant Function 1, 4М SAFETY STRING Function's (controller & switches) 1, 3, 4 М Fault Finder & Mechanic on Site Switch 1, 4 0 М Alarms 1 М Panel gaps, molding, skirt brushes, floor plates etc... 1.4 М Check lead in tracks at bull gear & bottom carriage 1, 3, 4 Q TOTAL clean down; Test & Inspect 1, 2, 3, 4 Α

CODE: 1) Check operation, adjust and clean as needed

2) Lubricate as needed

- 3) Check for unusual noise or heat
- 4) Check for wear or breakage