

## CHAPTER 17

### MAINTENANCE SCHEDULES

#### Section I-CONSIDERATIONS

**17-1. Maintenance planning.**

Proper maintenance depends on realistic planning. The basic information required to establish a well planned program is detailed in chapter 1.

**17-2. Maintenance priorities.**

The electrical supervisor is responsible for determining the priority of each preventive maintenance operation. These priorities should reflect the function of each piece of equipment and local conditions that affect the serviceability of the equipment.

#### Section II-SCHEDULES

**17-3. Maintenance frequency guides.**

The maintenance frequencies indicated in table 17-1 are to be used as guides. The maintenance schedule for each installation should be based on a physical inventory of the electrical distribution system and the historical data available.

**17-4. Revisions to maintenance schedules.**

Maintenance schedules should be revised whenever additional or replacement equipment is installed, climatic conditions indicate a change is required, load conditions change or any other condition occurs that affects the operation of the system.

*Table 17-1. Maintenance Frequencies*

As required	Weekly	Monthly	Semi-annually	Annually	Every 2 years	Every 5 years	Paragraph reference
<b>Equipment</b>							
X							Aerial lift devices ..... 15-26.d
X							Anchor assemblies ..... 4-54
X							Anchors, submarine cable ..... 5.7
X				X			Arresters, surge, visual inspection. .... 9-9.a
					X		Arresters, surge, electrical tests. .... 9-9.b
X		X					Batteries, booster charge ..... 14-17.f
X		X		X			Batteries, check. .... 14-4.b(3)14-18
X		X					Batteries, equalizing charge ..... 14-12
X			X				Batteries in storage. .... 14-28
		X					Battery maintenance test equipment ..... Table 14-3
		X					Battery chargers. .... 14-23a
X				X			Buses, substation ..... 3-24.b
X				X			Bushings, inspection ..... 3-33
X							Bushings, power factor tests ..... 3-34.a
X							Bushings, insulation resistance test ..... 3-36
				X			Cable maintenance tests. .... 5-26.b
X							Cable, overhead. .... 4-43
X				X			Cable, paper-insulated ..... 5-24.b
X				X			Cable, pressure ..... 5-24.e
X							Cablerecords ..... 5-30
				X			Cable, submarine ..... 5-18.c,5-20
					X		Cable, underground, routine inspection. .... 5-5
				X			Cable, underground, insulation resistance ..... 5-27
X							Cable, underground, potential tests ..... 5-28
X							Cable, underground corrosion. .... 5-33
X							Cable, varnished-cambric. .... 5-24.a
X			X				Capacitors. .... 13-5
X							Capacitor bushings. .... 13-8
X							Capacitor busbar supports. .... 13-8
					X		Circuit breaker maintenance. .... 8-13
				X			Circuit breaker, high-voltage. .... 8-14
X					X		Circuit breaker, medium-voltage ..... 8-15

Table 17-1. Maintenance Frequencies (continued)

As required	Weekly	Monthly	Semi-annually	Annually	Every 2 years	Every 5 years	Equipment	Paragraph
X					X		Circuit breaker, low-voltage.	8-16
					X		Circuit switchers.	8-18
					X		Conductor resagging	4-39a
X							Connections	1-16
X		X					Connectors, tap.	4-46
X							Contacts.	11.11.c
							Controls	11-11
		X		X			Control magnet-operated devices.	11-11.d
		X					Control thermally-operated devices.	11-11.e
		X					Control motor-operated devices	11-11.f
			X				Control mechanically-operated devices.	11-11.g
			X				Control static accessories	11-11.h
			X				Control, nonelectromagnetic	11-11.i
						X	Crossarms	4-23
						X	cutouts	8-8(b),(c)
X					X		Disconnecting switches	8-9.c(1),8-10.b,8-11
X					X		Fuses	8-8.a
X							Grounds	10-4,10-6
X							Guys and anchors.	4-52c
						X	Hardware	4-32
X							Instruments and meters-inspection	12-6
				X			Instruments and meters-tests	12-7
X							Insulating liquids.	Table 7-1
X						X	Insulators, distribution.	4-5 1c
X					X		Insulators, substation	3-20
X							Interference, electromagnetic	16-5
X	X						Interference, harmonic	16-13
			X				Lamps	6-5
X			X				Leathergoods	15-14
							Lightning protection shielding devices.	9-10
				X			Luminaires	6-7
				X			Manholes	5-9
X					X		Meters and instruments-inspection	12-6
							Meters and instruments-tests	12-7
X						X	Poles, wood	4-16.b
X							Poles, metal	4-29
X							Poles, concrete	4-34
X							Portable or mobile substations	15-26c
X				X			Potheads	5-25
X				X			Reclosers, automatic circuit.	8-19
				X			Regulator, voltage	7-2.b(2)
X							Relays	11-4.b
				X			Relay settings	11-4.b
X							Resistors, bypass	9-13
			X				Rubber goods	15-9
					X		Servicedrop	Figure 4-13
				X			Streetlighting fixtures.	6-4
X							Streetlighting lamps	6-5
				X			Streetlighting photocells.	6-8.c
					X		Streetlighting protective relays	6-14.a
					X		Streetlighting primary oil switch	6-14.b
		X					Substation fence and gate	3-16.c
		X					Substation signs	3-17
X							Substation yard.	3-18
				X			Substation overall, infrared.	3-5
		X					Substation overall, visual.	3-5
X					X		Switch, load interrupter.	8-9.c(2),8-11
			X				Switch, photoelectric	6-8.C

Table 17-1. Maintenance Frequencies (continued)

As required	Weekly	Monthly	Semi-annually	Annually	Every 2 years	Every 5 years	Equipment	Paragraph
		X	.....	.....	.....	.....	Switch, time (accuracy).....	6-8.a
				X	.....	.....	Switch, time (contacts).....	6-8.a
X	.....	.....	.....	X	.....	.....	Tap changer, load.....	Table 7-1
X	.....	.....	.....	.....	.....	.....	Telephone interference.....	16-9
X	.....	.....	.....	X	.....	.....	Terminations.....	5-25
			X	.....	.....	.....	Test instrument calibrations, analog.....	2-4.b
				X	.....	.....	Test instrument calibrations, other.....	2-4.b
X	.....	.....	.....	.....	.....	.....	Tools, live-line inspection.....	15-17.b
X	.....	.....	.....	X	.....	.....	Tools, live-line test records.....	15-17.a
				X	.....	.....	Transformer, constant current.....	6-15.a
X	.....	.....	.....	X	.....	.....	Transformer, distribution.....	7-4.b
X	.....	.....	.....	.....	.....	.....	Transformer, instrument.....	3-29. 3-30
X	.....	.....	.....	.....	.....	.....	Transformer, power.....	7-4.a
X	.....	.....	.....	.....	X	.....	Tree trimming.....	4-57.c