

CHAPTER 4
TELECOMMUNICATIONS FACILITIES
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CHAPTER 4

TELECOMMUNICATIONS FACILITIES

1. INTRODUCTION. The California Highway Patrol (CHP) uses both local and remote telecommunications facilities as part of its statewide communications network. Remote facilities (radio sites) are generally located on mountain tops; local telecommunications facilities may be located at communications centers, Area offices, or Division offices. All of these telecommunications facilities house electronic radio telecommunications equipment used for two-way communications with CHP vehicles, microwave equipment used for control of radio equipment, and microwave equipment used as part of the statewide network which supports the Operational Dial Telephone System (green phone) and other services.

2. RESPONSIBILITIES.

a. Most CHP-owned or managed telecommunications sites (remote or local) are equipped with engine-driven generators or other emergency power sources with automatic controls that switch electronic equipment to emergency power in the event commercial power fails. Some sites, which do not have access to commercial power, operate entirely from generated power. In these cases, solar power, batteries, and/or thermal-electric generators are usually installed. The purchase, permitting, installation, and maintenance of these generating systems are the responsibility of Telecommunications Section (TS).

b. Telecommunications Section is also responsible for maintenance and installation of various structures at CHP-owned and/or managed remote radio sites. These structures include, but are not limited to: radio vaults, towers, fences, generating equipment, propane systems, and in some cases, access roads.

c. California Highway Patrol-owned and/or managed telecommunications facilities are generally shared with radio users from other state, federal, or local public service agencies, and occasionally shared with amateur and commercial radio users. It is the responsibility of TS to manage the Department's leases and use permits associated with CHP's telecommunications facilities. The section also leases space in other providers' telecommunications facilities for CHP electronic equipment.

d. The installation of electronic equipment in CHP communications centers has necessitated installation of uninterrupted power source (UPS) systems. This equipment is intended to keep commercial electrical power used to run automated systems as clean and stable as possible, preventing surges, sags, or power failures from damaging equipment and destroying data. To ensure that radio consoles and

associated equipment are protected by properly installed and regularly maintained UPS systems, TS assumed responsibility for this communications center equipment. The exception would be the communications centers (Sacramento, Los Angeles, Orange County, Border, and Inland) co-located in California Department of Transportation (Caltrans), Transportation Management Centers. These UPS systems are maintained by Caltrans.

e. Security. Communications equipment is mission critical. Areas shall limit access to equipment rooms and radio sites. Area commanders will develop local policies to ensure all employees are aware of access requirements.

(1) All additions, moves, and upgrades of equipment (radios, telephones, towers, and remote radio sites) shall be authorized by TS or Communications Centers Support Section (CCSS) and coordinated with the Area and/or communications center staff.

(2) Non-departmental personnel (non-departmental individuals from other government agencies, media representatives, visitors, and vendors) shall be escorted to/through the equipment room/work site.

(3) Authorized vendors shall present a valid work order listing a local contact person before being allowed access to CHP equipment rooms. Area personnel are not required to stand by while work is performed by authorized vendors.

(a) Minor repairs to radio equipment are normally the responsibility of the local Area. For example: A California Governor's Office of Emergency Services Public Safety Communications (PSC) radio technician is contacted by the Area to determine the reason for low volume on a radio. The PSC technician would not be required to present a work order when he/she responds but would coordinate with Area staff.

(b) Communications Centers Support Section personnel are responsible for authorizing work orders for telephone equipment installations, moves, and upgrades in communications centers and their co-located facilities. Telecommunications Section personnel are responsible for authorizing all work orders for all other departmental telephone system installations, moves, and upgrades. Telecommunications Section personnel are responsible for authorizing all work orders for radio equipment installations, moves, and upgrades. The work order presented to the Area by repair personnel and vendors will generally be written by their companies and should contain the name of the CHP employee ordering the service.

3. GENERATORS AND TRANSFER PANELS.

- a. Local Commands. Generators and transfer panel switches at CHP-owned local Area commands are budgeted, purchased, installed, and maintained by TS. It is the responsibility of the local command to notify TS if the on-site generator fails to perform properly or appears to be damaged. If the local command has concerns about the performance of the generator, TS should be notified immediately.
- b. Preventive Maintenance. Telecommunications Section personnel will provide regular on-site maintenance for generators and transfer panel switches. This includes checking oil, water, fuel, and battery water levels. Generators are programmed to exercise regularly.
- c. California Highway Patrol Leased Facilities. Generators and transfer panel switches at CHP leased facilities are usually the responsibility of the lessor. Concerns about the performance of generators at these sites should be directed to Facilities Section.
- d. Remote Facilities. Generators and transfer panel switches at remote radio sites are budgeted, purchased, installed, and maintained by TS. If local commands receive information regarding negative performance of a generator or transfer panel switch, TS should be contacted immediately. Occasionally, the PSC radio technician will report the condition of the equipment after their visit to the remote radio site. Generators at remote sites are programmed to exercise weekly (normally on Mondays).

4. PROPANE.

- a. Local Commands. Propane deliveries for generators at CHP-owned local Area commands are the responsibility of the local command. Business Services Section (BSS) has provided each local command information regarding delegated purchasing procedures for propane. If information is needed regarding how to order propane, contact BSS or Purchasing Services Unit. The local office will be notified by CHP staff or occasionally the local radio technicians when the propane fuel is low and a delivery is required. If the local command is concerned about the propane level, contact the appropriate contracted vendor.
- b. Remote Telecommunications Facilities. Propane deliveries for generators at remote telecommunications facilities are the responsibility of TS. If the local command is ever notified by a local radio technician or other responsible party that the propane fuel level is low at a particular remote site, contact TS immediately. Local commands should not order propane for remote telecommunications facilities.

- c. Invoices. Occasionally, copies of propane invoices associated with remote radio sites will be sent to local Area commands. These invoices should be forwarded to TS.

5. UNINTERRUPTED POWER SOURCES.

- a. All communications centers are equipped with an UPS system which meets Department guidelines. Each system has ancillary parts, a remote status alarm panel, a battery bank, and a maintenance contract for annual service. Most centers have also been placed on a battery replacement schedule.
- b. Questions regarding UPS systems and requests for assistance should be directed to TS. Communications centers that are located within a Caltrans Transportation Management Center should contact the on-site facility manager for assistance.
- c. Uninterrupted power source units for Area office equipment are primarily the responsibility of Information Technology Section. The UPS units for new facilities are included in capital outlay projects by Facilities Section.
- d. Small UPS units attached to the telephone systems in Area offices are the responsibility of TS.

6. TELECOMMUNICATIONS RADIO SITES.

- a. Acquisitions. Acquisition of remote telecommunications facilities is the responsibility of TS. Acquisition may be accomplished by a variety of means including lease or purchase. Additionally, all fiscal and legal actions associated with the acquisition of land where a site is to be located, as well as the construction itself, are the responsibility of TS.
- b. Local Contacts. If local commands are contacted by radio remote site landlords, or users (potential or existing) of CHP-owned or managed sites, the caller should be referred to TS. If local commands are contacted by wireless communications providers regarding use of CHP property or telecommunications facilities, the caller should be referred to TS.
- c. Documents. Occasionally, copies of radio site leases, bills associated with radio sites, United States Forest Service permits, or Bureau of Land Management agreements will be sent to local Area commands. These documents should be forwarded to TS.

7. PLANNING AND BUDGETING.

a. New Facilities. Equipment required to support a CHP facility (i.e., generators, propane tanks, towers, power sources, climate control) is normally included in the construction bid. Telecommunications Section and CCSS staff must be included in the earliest stages of facility planning to ensure that sufficient service and space is allocated to meet Department standards and the needs of future occupants.

b. Replacement Equipment. Telecommunications Section budgets and purchases all facility support equipment as part of the routine major equipment replacement program. However, field commands are encouraged to submit budget requests for facility equipment that has been identified as inadequate or unreliable. Field requests are included in the TS budget and they will be replaced as required.

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