

ENGINE-GENERATOR SETS – ROUTINE RUNS

OVER-ALL INSPECTION OF CONDITION AND PERFORMANCE

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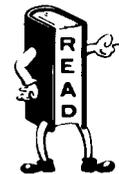
inspecting, lubricating, and testing stationary and portable diesel, gasoline engines, and gas turbine engines.

1.02 It is reissued to:

- Correct the Kohler engine rating shown in Table D from 25 kW to 20kW.
- Include cross-references for the tables under the contents table.

1.03 All employees who have occasion to operate emergency sets must become familiar with their operation. Train employees at the time test runs are made on the portable sets.

1.04 Observe any local ordinances with reference to storing of gasoline and diesel fuel.



Danger: Gasoline fumes (including those in the engine crankcase) are very likely to be explosive. Avoid breathing exhaust gasses – they are dangerous to life. When possible, operate portable engine sets outdoors where there is a free circulation of air. When it is necessary to operate engines indoors, provision must be made to carry off the exhaust gasses, as well as provide adequate ventilation. All fire-hazard precautions are a must.

1.05 Supervise the handling of gasoline and diesel fuel containers and rigidly enforce the **NO SMOKING RULE**.

1.06 Exercise care when refilling fuel tanks at locations where standby engine generators are located in the basement. Ascertain that the fill pipe is not filled to ground level. Excess fuel in the fill pipe will result in flooding the engine room floor. *This creates a dangerous fire hazard.*

1. GENERAL

1.01 This section briefly outlines, (for scheduling purposes) procedures for cleaning,

2. APPARATUS

2.01 The following apparatus is required:

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- Flashlight or portable extension lamp, as available
- Cleaning cloth (See BSPs covering power plant materials)
- Speed indicator, as available
- Oil and grease

3. METHODS

General Inspection

3.01 Inspect for the following:

- Cleanliness and general appearance of equipment (clean as required in accordance with approved methods).
- Loose or missing bolts, nuts, screws, and washers.
- Freedom of movable parts (remove any foreign objects which might interfere with the operation of the engine).
- Leaks in cooling, fuel and exhaust systems (check to see that all connections are sound, and all hoses are not abnormally hard or soft).

General Lubrication

3.02 Check the lubricating system. Add or replace lubricants in accordance with requirements.

4. STATIONARY ENGINE SETS

4.01 Ensure that all the requirements for ventilation specified in BSPs before starting the engine are met.

4.02 Start the engine in accordance with instructions specified in BSPs or those shown on the operation chart.



Warning: If for any reason the automatic overspeed trip should operate, do not reset this mechanism in an effort to keep the engine running. Allow engine to come to a complete state of rest and then repeat the starting operations. Do not attempt to start for 10 minutes after stopping to allow gas to escape from muffler.

4.03 When a starting motor switch is provided, operate in accordance with requirements specified in BSPs.

4.04 Check the following types of equipment:

Equipment	Determine
Diesel Engines	That fuel is being delivered to fuel injection (distributor) pump.
Gasoline Engines	That carburetor and fuel pump conform to requirements specified in BSPs.
Diesel and Gasoline Engines	That temperature of cooling system conforms to requirements specified in BSPs.
All Engines	That engine speed and overspeed trip mechanism conform to requirements specified in BSPs.
Starting Batteries	That they are maintained in accordance with standard battery routines.

Routine Runs – Monthly

4.05 This establishes periodicity for engine/turbine set test runs in Pacific Company. All other engine/turbine set routines are in accordance with the associated BSPs.

4.06 In order to ensure proper lubrication, to bring the engine and its parts up to normal operating temperature, to reduce contamination of the oil, as well as to minimize the collection of sediment in the fuel system, the engine/turbine set must be routined as given in 4.07, 4.08, and 4.09. The running time specified will provide time to evaluate operation of the engine, as well as the engine/turbine set and its controls, while on emergency power; also, it will provide time for training of personnel, especially where parallel operation is required.

Note: Short runs, such as demonstration starts or where the cooling water does not have time to warm up to 120°F or above, should be avoided as they are injurious to the engine.

4.07 All engine sets (except turbines) are required to be tested under load (at least 30% of rated load for diesels) once a month for a period of at least 2 hours, except for the month the annual run is due. Should there be any indication of trouble, investigate and correct such immediately.

4.08 Each turbine set is required to be tested under office load in each odd numbered month (every other month) for a period of at least 2 hours, except for the month the annual run is due. In addition, on the KS-20460, 2500 kW sets, the lubrication system shall be primed using the lube oil hand pump every two weeks.

Note: On the KS-19896 turbines, Bell Telephone Laboratories recommends a reduction in the number of starts versus the number of running hours to slow the buildup of carbon deposit on the fuel nozzle and the combustion chamber burner walls.

4.09 Automatic stationary engines at unattended locations (such as carrier or repeater stations) are often arranged to be checked on a remote start basis. *It is recommended that the routine run of these engines be made only during periods when the station is attended so the sets may be observed under load conditions and performance can be logged per 6.01.*

Yearly

4.10 Make an extended load run — 5 hours — on all stationary and portable sets during the busy part of the day. This test may be made at more frequent intervals, where local conditions make it desirable (such as a period subsequent to major engine repairs or adjustments, or for the purpose of personnel instruction).

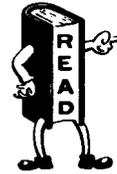
Warning: Verify that silencer drain valves are opened and left open following engine operation.

4.11 *Flexible Couplings:* Inspect all flexible couplings for tightness of bolts, distorted discs or other possible trouble causes.

4.12 *Exhaust Systems on Engines Equipped With Spark Arrestors*

- Remove plugs and straps covering clean out ports when the engine exhaust system is cold.

- Start engine and run long enough to blow out accumulated carbon particles.



Caution: Take adequate safeguards to avoid fire hazards and injury to personnel. Do not clean out spark arrestor when engine and exhaust system are hot.

5. PORTABLE ENGINE SETS

5.01 These routines should be run monthly and an office load should be used. By taking the engine generator to an office and connecting it, a two fold purpose will be served:

1. Training for personnel.
2. Show that the engine generator is capable of carrying the load it is intended to carry.

If an office load cannot be connected to the engine generator, then an artificial load should be used.

Portable Engine Sets Lubricated with Crankcase Oil

5.02 This routine applies to portable engine sets which are lubricated from a supply of oil in the crankcase. They are held in reserve at selected locations for use as emergency-power units for attended or unattended offices.

5.03 Start the engine as outlined in the section for the particular engine involved and slowly bring it up to full speed. Let it run with no load for approximately 5 minutes. Then connect the load (from 25 to 100 per cent of the rated capacity of the set) and continue the run for not less than 30 minutes.

5.04 At the end of the 30-minute load run, remove the connected load. Continue to run the engine for at least 5 minutes before shutting it down to let the temperature of the engine-cooling water drop.

Portable Engine Sets Lubricated with Oil Mixed With The Fuel Supply

5.05 This routine applies to portable engine sets which are lubricated with oil mixed with the fuel supply. They are held in reserve at selected locations for use as emergency-power units for attended or unattended offices.

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5.06 Use a small bank of lamps, construction flood-lighting units, electric heaters, etc. to build up a load. The amount of this load is of no material importance as long as the set has some load and does not exceed the rated capacity of the set.

5.07 Start the engine and run the set for about 30 minutes with the load as previously set up (see 5.03). A suitable interval for operation may be obtained (providing the fuel tank is empty) by putting one-half pint of the proper gasoline and oil mixture into the fuel tank and running the set until the fuel is exhausted.

5.08 Any oil mixtures for portable engines which have been stored for longer than 3 months should be disposed of and a new mixture used. Old mixtures may become gummy (due to oxidation of the fuel) and cause poor operation of the set.

6. REPORTS

6.01 Prepare reports in accordance with Section 155-002-010.

7. LOCATION OF PORTABLE ENGINE GENERATOR SETS

7.01 Tables A through E are provided to show the location where the sets are stored.

**TABLE A
EMERGENCY PORTABLE ENGINES
SOUTH BAY DIVISION**

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	SERIAL NO.	TRAILER NO.
ONAN 5KW 1Ø 115/230V GASOLINE, 4CYC MOD. #5CCK-3RV 1299D	LAHN 11 ENTRADA WAY LA HONDA	415-726-4401	LAHN 11	108B597689	S48316 E
ONAN 5KW 1Ø 115/230V GASOLINE, 4CYC MOD. #5CCK-3RV/1299D	SNLC 11 N/S MAIN ST. SAN LUCAS	415-449-0010	SNLC 11 SNAR 11	108B597693	S48477 E
ONAN 5KW 1Ø 115/230V GASOLINE 4CYC MOD. #5CCK-3RV/1299D	SNJN 11 3RD & WASH. SAN JUAN	415-449-0010	SNJN 11 TRPS 11	108B597692	S48663 E
ONAN 5KW 1Ø 115/230V GASOLINE 4CYC MOD. #5CCK-3RV/1299D	SLNS 13 710 MONTEREY HWY. SALINAS (HUNTER)	415-449-0010	SLNS 13 SLNS 12	108B597687	S48478 E
ONAN 10KW 1Ø 115/230V GASOLINE 4CYC MOD. #10CW-3R/1G	CRVY 11 CARMEL & PASO HONDA CARMEL	408-394-0010	CRVY 11	129B625778	S6749 E
ONAN 10KW 1Ø 115/230V GASOLINE 4CYC 10CW-3R 879F	GNFD 11 248 - 9TH ST. GREENFIELD	415-449-0010	GNFD 11 CHLR 11	98B594467	S6724 E
GM 20KW 1Ø 115/230V DIESEL 2 CYC MOD. #2017G	HMBA 11 565 KELLEY AVE. HALF MOON BAY	415-726-4401	MSBH 11	25-J-48	S75017 E

**TABLE A (Contd)
SOUTH BAY DIVISION**

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	SERIAL NO.	TRAILER NO.
GM 20KW 3Ø 120/208V DIESEL 2CYC MOD. #WLB0200MHT	SLNS 14 7901 MORO RD. SALINAS	408-449-0010	SLNS 14	69176	S65251 E
CHRY 20KW 3Ø 120/208V GASOLINE 4CYC MOD. #WLB0200MHT	BNLM 11 9575 LOVECREEK RD. BEN LOMOND	408-438-0010	BNLM 11 FETN 11	63056	S48317 E
GM 20KW 3Ø 120/208V DIESEL 2CYC MOD. #2017G	BLCK 11 145 E. FORREST ST. BOULDER CREEK	408-438-0010	BLCK 11	120G-47	S7671 E
GM 40KW 1Ø 115/230V DIESEL 2CYC MOD. #WL045CMHT	HMBA 11 565 KELLEY AVE. HALF MOON BAY	415-726-4401	HMBA 11	66207	S33072 E
GM 60KW 3Ø 120/208V DIESEL 2CYC MOD. #6017G	SLNS 11 33 SAN JUAN RD. SALINAS	408-449-0010	SLNS 11	6A84384	S32711 E
GM 100KW 3Ø 120/208 DIESEL 2CYC	SNCZ 11 3640 CAPITOLA RD. SANTA CRUZ	408-475-0010	SNCZ 11		
GM 350KW 3Ø 120/208 DIESEL 2CYC	SNTC 11 1717 BELLOMY ST. SANTA CLARA	408-291-3307	SNTC 11		

**TABLE B
EMERGENCY PORTABLE ENGINES
EAST/WEST BAY DIVISION**

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	SERIAL NO.	TRAILER NO.
200 KW 208/480V 3Ø 4W SOLAR GAS TURBINE	S.D.C. 1300 ILLINOIS ST. SAN FRANCISCO	415-826-9605	SNLN 51 ELCR 50 WNCK 51 LVMR 11 RODE 11		1
200 KW 208/408V 3Ø 4W SOLAR GAS TURBINE	S.D.C. 1300 ILLINOIS ST	415-826-9605	DLCY 70 SNFC 16 SNFC 50 SNFC 54 SNFC 18		2
100 KW 120/208V 3Ø 4W GMC DIESEL	IGNC 11 405 ENTRADA ST. IGNACIO	415-883-0010	SSLT 11 IGNC 11 LRKS 50		C723

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**TABLE B (Contd)
EAST/WEST BAY DIVISION**

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	SERIAL NO.	TRAILER NO.
60 KW 120/208W 30 4W GMC DIESEL	STBH 11 CALLE DR. STINSON BEACH	415-868-0011	STBH 11 INVR 11 NICS 11		12486
7.5 KW 120/208V 10 3W KOHLEAR	OKLY 11 232 STAR ST. OAKLEY	415-625-0012	OKLY 11 BRWD 11 BTIS 11		66C88276

**TABLE C
PORTABLE EMERGENCY ENGINE GENERATOR SETS
SIERRA PACIFIC DIVISION**

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	TRAILER NO.	I.D. # OR SERIAL NO.
HOMELITE 42A 5KW 115/230V 1 PH GASOLINE 4CYC HAND CARRY	KYBR CA 11 HIGHWAY 50 KYBURZ	916+622-0010	PLACERVILLE SATELLITE TOLL & EXCH. OFFICES		1241860
	LKPT CA 01 555 LAKEPORT BLVD. LAKEPORT	707+263-0010	LAKEPORT SATELLITE TOLL & EXCH. OFFICES		1261213
	GRVY CA 01 315 COLFAX AVE. GRASS VALLEY	916+273-6121	GRASS VALLEY SATELLITE TOLL & EXCH. OFFICES		1241861
	ARSN CA 11 2955 OAK ST. ANDERSON	916+365-1132	REDDING SATELLITE TOLL & EXCH. OFFICES		1402464
	FNDL CA ROOS (EUREKA TOLL) FERNDAL	707+443-5008	EUREKA SATELLITE TOLL & EXCH. OFFICES		3484689
	MADR CA 11 221 SOUTH E ST. MADERA	209+674-2472	MADERA SATELLITE TOLL & EXCH. OFFICES		1528738
HOMELITE 116A50-2 5KW 115/230V 1PH GASOLINE 4CYC HAND CARRY	FTUN CA 11 832 L STREET FORTUNA	707+442-0010	EUREKA SATELLITE TOLL & EXCH. OFFICES		3229988
	ORVL CA 11 265 MEYER ST. OROVILLE	916+533-0010	OROVILLE SATELLITE TOLL & EXCH. OFFICES		3229977
	PTOL CA 01 QUINCY & GULLING ST. PORTOLA	916+877-0010	QUINCY SATELLITE TOLL & EXCH. OFFICES		3229978

TABLE C (Contd)
SIERRA PACIFIC DIVISION

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	TRAILER NO.	I.D. # OR SERIAL NO.
HOMELITE 116A50-2 5KW 115/230V 1PH GASOLINE 4CYC HAND CARRY (Contd)	PTOL CA 01 QUINCY & GULLING ST. PORTOLA	916+877-0010	QUINCY SATELLITE TOLL & EXCH. OFFICES		3229979
	WLWS CA 11 125 N. BUTTE ST. WILLOWS	916+934-5409	WILLOWS SATELLITE TOLL & EXCH. OFFICES		3229980
	GYVL CA 11 DEPOT ST. GEYSERVILLE	707+823-0010	HEALDSBURG SATELLITE TOLL & EXCH. OFFICES		3229987
	UKIH CA 01 305 W. STEPHENSON ST. UKIAH	707+462-4714	UKIAH SATELLITE TOLL & EXCH. OFFICES		3229985
ONAN 5KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MOUNTED (MODEL 5CCK 3R)	OKLD CA 11 1548 CARPENTER RD. OAKDALE	209+524-8231	OAKDALE SATELLITE TOLL & EXCH. OFFICES	U3676	108B597646
	ORVL CA 11 2065 MEYER ST. OROVILLE	916+533-0010	OROVILLE SATELLITE TOLL & EXCH. OFFICES	T3670	479707
	CRNG CA 11 1314 MARIN CORNING	916+527-0010	RED BLUFF SATELLITE TOLL & EXCH. OFFICES	T3689	40C63465
	SGSP CA 11 HIGHWAY 50 SHINGLE SPRINGS	916+622-0010	PLACERVILLE SATELLITE TOLL & EXCH. OFFICES	T3669	35B14903
	OCDN CA 11 FRONT ST. OCCIDENTAL	707+823-0010	SEBASTOPOL SATELLITE TOLL & EXCH. OFFICES	T3686	106B551707
	GRND CA 12 SHASTA AVE. GRENADA	916+842-2708	YREKA SATELLITE TOLL & EXCH. OFFICES	T3687	106B551706
ONAN 5KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MOUNTED (MODEL 5CCK 3R)	ASMT CA 11 ASH MOUNTAIN	209+686-3891	VISALIA TOLL & EXCH. OFFICES	53682	108B597691
	ATSC CA 11 ATASCADERO	805+238-0010	PASO ROBLES SATELLITE TOLL & EXCH. OFFICES	53680	108B597688
ONAN 10KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MOUNTED (MODEL 10CW 3R)	MRCO CA 01 440 W. 18TH ST. MERCED	209+723-5489	MERCED SATELLITE TOLL & EXCH. OFFICES	U3648	707247
	PNAR CA 11 207 MAIN PT. ARENA	707+964-5349	FORT BRAGG SATELLITE TOLL & EXCH. OFFICES	T3691	110C644412

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TABLE C (Contd)
SIERRA PACIFIC DIVISION

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	TRAILER NO.	I.D. # OR SERIAL NO.
ONAN 10KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MOUNTED (MODEL 10CW 3R) (Contd)	VISL CA 11 217 W. ACEQUIA VISALIA	209+733-0010	VISALIA SATELLITE TOLL & EXCH. OFFICES	F 3693	110C644414
	PTVL CA 11 250 E. GRAND PORTERVILLE	209+784-0010	PORTERVILLE SATELLITE TOLL & EXCH. OFFICES	F 3694	110C644412
	SCRM SUPPLY CENTER (TOLL) 24TH & S ST. SACRAMENTO	916+452-8717	SACRAMENTO SATELLITE TOLL & EXCH. OFFICES	U3642	700713
HOMELITE 116A50-2 5KW 115/230V 1PH GASOLINE 4CYC HAND CARRY (Contd)	ALGH CA 11 MAIN ST. ALLEGHANY	916+273-6121	NEVADA CITY SATELLITE TOLL & EXCH. OFFICES		3229981
	SMAV CA 11 MAIN ST. & O'BRIEN ST. SMARTSVILLE	916+674-0010	MARYSVILLE SATELLITE TOLL & EXCH. OFFICES		3229982
	ANNP CA 11 SPRINGS ROAD ANNAPOLIS	707+964-5349	FORT BRAGG SATELLITE TOLL & EXCH. OFFICES		3229986
	GRVY CA 01 315 COLFAX AVE. GRASS VALLEY	916+273-6121	GRASS VALLEY SATELLITE TOLL & EXCH. OFFICES		3229983
	AUBN CA 01 1125 LINCOLN WAY AUBURN	916+885-0010	AUBURN SATELLITE TOLL & EXCH. OFFICES		3229984
	SNRA CA 13 196 S. WASH ST. SONORA	209+532-4158	SONORA SATELLITE TOLL & EXCH. OFFICES		3229974
	SNRA CA 13 196 S. WASH ST. SONORA	209+532-4158	SONORA SATELLITE TOLL & EXCH. OFFICES		3229975
	YSMT CA 11 GOV'T CENTER YOSEMITE	209+372-4402	YOSEMITE VALLEY		3229976
	FTBR CA 01 447 N. FRANKLIN ST. FORT BRAGG	707+964-5349	FORT BRAGG SATELLITE TOLL & EXCH. OFFICES		1269141398
	JCSN CA 01 303 CHURCH ST. JACKSON	209+223-0010	JACKSON SATELLITE TOLL & EXCH. OFFICES		3229972

TABLE C (Contd)
SIERRA PACIFIC DIVISION

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	TRAILER NO.	I.D. # OR SERIAL NO.
HOMELITE 116A50-2 5KW 115/230V 1PH GASOLINE 4CYC HAND CARRY (Contd)	JCSN CA 01 303 CHURCH ST. JACKSON	209+223-0010	JACKSON SATELLITE TOLL & EXCH. OFFICES		3229973
	HMWD CA 11 HIGHWAY 89 HOMEWOOD	916+583-3531	TAHOE CITY SATELLITE TOLL & EXCH. OFFICES		2454980
	FTUN CA 11 832 L ST. FORTUNA	707+442-0010	EUREKA SATELLITE TOLL & EXCH. OFFICES		2246899
ONAN 15KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MTD. 12 TC 3ROR 15JC3R (Contd)	OKDL CA 11 121 POPLAR ST. OAKDALE	209+847-0012	OAKDALE SATELLITE TOLL & EXCH. OFFICES	U3650	0368019316
	GRTW CA 11 MAIN ST. GEORGETOWN	916+622-0010	PLACERVILLE SATELLITE TOLL & EXCH. OFFICES	T3653	0969128620
	CTTI CA 11 9499 OLD REDWOOD COTATI	707+762-0010	PETALUMA SATELLITE TOLL & EXCH. OFFICES	T3610	1169175892
	CODL CA 11 209 W. 1ST ST. CLOVERDALE	707+823-0010	SEBASTOPOL SATELLITE TOLL & EXCH. OFFICES	T3624	1169175884
	SBST CA 11 7430 BODEGA SEBASTOPOL	707+823-0010	SEBASTOPOL SATELLITE TOLL & EXCH. OFFICES	T3634	1169175887
	ARCT CA 11 1300 G ST. ARCATA	707+442-0010	EUREKA SATELLITE TOLL & EXCH. OFFICES	T3614	1169175882
	UKIH CA 01 305 W. STEPHENSON UKIAH	707+462-4714	UKIAH SATELLITE TOLL & EXCH. OFFICES	T3616	1169175876
	EURK CA 01 1818 F ST. EUREKA	707+442-0010	EUREKA SATELLITE TOLL & EXCH. OFFICES	T3621	1169175883
	NICE CA 11 STATE HIGHWAY & DENTON NICE	707+263-0010	LAKEPORT SATELLITE TOLL & EXCH. OFFICES	T3625	1169175885
MNDC CA 11 625 HOWARD MENDOCINO	707+964-5349	FORT BRAGG SATELLITE TOLL & EXCH. OFFICES	T3630	1169175886	

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TABLE C (Contd)
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DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	TRAILER NO.	I.D. # OR SERIAL NO.
ONAN 15KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MTD. 12 TC 3ROR 15JC3R (Contd)	WLWS CA 11 125 N. BUTTE WILLOWS	916+934-5409	WILLOWS SATELLITE TOLL & EXCH. OFFICES	T3626	1169175891
	CNVY CA 11 1608 McCONNELL CENTRAL VALLEY	916+365-1132	ANDERSON SATELLITE TOLL & EXCH. OFFICES	T3619	1169175877
	ARSN CA 11 2955 OAK ST. ANDERSON	916+365-1132	ANDERSON SATELLITE TOLL & EXCH. OFFICES	T3633	1169175880
	MTSH CA 11 CHESTNUT & OREAM MT. SHASTA	916+842-2708	YREKA SATELLITE TOLL & EXCH. OFFICES	T3635	1169175881
ONAN 10KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MTD. (MODEL 10CW 3R) (Contd)	YSMT CA 11 GOVERNMENT CENTER YOSEMITE	209+372-4402	YOSEMITE VALLEY TOLL & EXCH. OFFICES	U3690	29B625766
	SHLK CA 01 ROAD 99D SHASTA LAKE	916+365-1132	ANDERSON SATELLITE TOLL & EXCH. OFFICES	T3622	103C734873
	SUIS CA 11 TRAVIS RD. E. SUISUN	707+425-0010	VACAVILLE SATELLITE TOLL & EXCH. OFFICES	T3696	63C724895
	PTOL CA 01 QUINCY & GULLING PORTOLA	916+533-0010	OROVILLE SATELLITE TOLL & EXCH. OFFICES	T3697	63C724893
	FTUN CA 11 832 L ST. FORTUNA	707+442-0010	EUREKA SATELLITE TOLL & EXCH. OFFICES	T3699	63C724896
	ELK CA 11 STATE ROUTE 1 ELK	707+964-5369	FORT BRAGG SATELLITE TOLL & EXCH. OFFICES	T3698	63C724894
	YSMT CA 11 GOVERNMENT CENTER YOSEMITE	209+372-4402	YOSEMITE VALLEY OFFICES	U3671	57B564791
	SNLO CA 01 994 MILL ST. SAN LUIS OBISPO	805+543-3620	SAN LUIS OBISPO SATELLITE TOLL & EXCH. OFFICES	S3045	126C936952
	FZPK CA 11 LAGUNA TRIAL BRAND BLVD. FRAZIER PARK	805+327-6297	EXCHANGE	F3633	103C734872

TABLE C (Contd)
SIERRA PACIFIC DIVISION

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	TRAILER NO.	I.D. # OR SERIAL NO.
ONAN 10KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MTD. (MODEL 10CW 3R) (Contd)	LEBC CA 11 36055 GOLDSTATE HWY. LEBEC	805+327-6297	EXCHANGE	S3046	126C936951
	FRSN CA 01 1445 & 1455 VAN NESS AVE. FRESNO	209+484-2714	TOLL & EXCHANGE	F3646	700244
BUDA 20KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MTD.	UKIH CA 01 305 W. STEPHENSON UKIAH	707+462-3741	UKIAH SATELLITE TOLL & EXCH. OFFICES	T1252-2	40528
ONAN 15KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MTD. 12 TC 3ROR 15JC3R (Contd)	STHN CA 11 1240 OAK ST. ST. HELENA	707+963-2468	ST. HELENA SATELLITE TOLL & EXCH. OFFICES	T3636	117C994031
	PRDS CA 12 772 ELLIOT ST. PARADISE PINES	916+877-0010	PARADISE SATELLITE TOLL & EXCH. OFFICES	T3640	117C994030
	AUBN CA 01 1125 LINCOLN ST. AUBURN (TOLL)	916+885-8438	AUBURN TOLL SATELLITE EXCHANGE OFFICES	T3639	117C994029
	HRBK CA 11 MAIN ST. HORN BROOK	916+842-2708	YREKA SATELLITE TOLL & EXCH. OFFICES	T3651	0568038251
	BTCY CA 11 EUREKA & MAIDEN BUTTE CITY	916+934-5409	WILLOWS SATELLITE TOLL & EXCH. OFFICES	T3631	1169175889
	AUBN CA 01 1125 LINCOLN WAY AUBURN	916+885-0010	AUBURN SATELLITE TOLL & EXCH. OFFICES	T3617	1169175901
	HMWD CA 11 HIGHWAY 89 HOMEWOOD	916+583-3531	TAHOE CITY SATELLITE TOLL & EXCH. OFFICES	T3627	1169175878
	NVCY CA 11 305 SPRING ST. NEVADA CITY	916+273-6121	GRASS VALLEY SATELLITE TOLL & EXCH. OFFICES	T3632	1169175879
	WNTR CA 11 EDWARDS ST. WINTERS	916+662-0010	WOODLAND SATELLITE TOLL & EXCH. OFFICES	T3611	1169175898
	VCVL CA 11 320 ELIZABETH VACAVILLE	707+448-0010	VACAVILLE SATELLITE TOLL & EXCH. OFFICES	T3623	1169175888

TABLE C (Contd)
SIERRA PACIFIC DIVISION

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	TRAILER NO.	I.D. # OR SERIAL NO.
ONAN 15KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MTD. 12 TC 3ROR 15JC3R (Contd)	SONM CA 11 453 1ST ST. WEST SONOMA	707+963-2468	ST. HELENA SATELLITE TOLL & EXCH. OFFICES	T3637	1169175890 Dedicated
	LVOK CA 11 9945 LARKIN ST. LIVE OAK	916+674-0010	YUBA CITY SATELLITE TOLL & EXCH. OFFICES	T3612	1169175899
	BEAL CA 11 CAPEHART ST. MARYSVILLE	916+743-0010	YUBA CITY SATELLITE TOLL & EXCH. OFFICES	T3613	1169175900
	ANCM CA 01 MAIN ST. ANGELS CAMP	209+736-2583	ANGELS CAMP SATELLITE TOLL & EXCH. OFFICES	T3610	1169175873
	SNRA CA 13 195 S. STENART SONORA	209+532-4158	SONORA SATELLITE TOLL & EXCH. OFFICES	T3602	1169175874
	LCFR CA 11 MAIN & ELM ST. LOCKEFORD	209+368-2761	LODI SATELLITE TOLL & EXCH. OFFICES	U3604	1169175893
	JCSN CA 01 303 CHURCH ST. JACKSON	209+223-0010	JACKSON SATELLITE TOLL & EXCH. OFFICES	U3605	1169175875
	GALT CA 11 533 C ST. GALT	209+368-2761	LODI SATELLITE TOLL & EXCH. OFFICES	U3607	1169175895
	NWMN CA 11 927 E. FRESNO NEWMAN	209+524-8208	MODESTO SATELLITE TOLL & EXCH. OFFICES	U3606	1169175894
	MDST CA 04 5024 CURTIS ST. SALIDA	209+537-0422	CERES SATELLITE TOLL & EXCH. OFFICES	U3608	1169175896
	MADR CA 11 2215 E ST. MADERA	209+674-2472	MADERA SATELLITE TOLL & EXCH. OFFICES	U3609	1169175897
	GUVL CA 11 CHURCH & MAIN GUERNEVILLE	707+823-0010	SEBASTOPOL SATELLITE TOLL & EXCH. OFFICES	T3654	089128614 Automatic
	VINTON JUNCTION	DEDICATED	DEDICATED		1169175872 Automatic Dedicated

TABLE C (Contd)
SIERRA PACIFIC DIVISION

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	TRAILER NO.	I.D. # OR SERIAL NO.
ONAN 15KW 115/230V 1PH GASOLINE 4CYC 2 WHEEL TRAILER MTD. 12 TC 3ROR 15JC3R (Contd)	LEMR CA 11 C & HEINLEIN ST. LEMOORE	209+935-1626	COALINGA SATELLITE TOLL & EXCH. OFFICES	S3058	0770236787
	DINB CA 01 225 N. K ST. DINUBA	209+591-0010	DINUBA SATELLITE TOLL & EXCH. OFFICES	S3056	1169130607
	CRTH CA 11 CARUTHERS COD	209+896-0010	SELMA SATELLITE TOLL & EXCH. OFFICES	S3057	1169130608
DUAL PHASE 15KW 120/208V 3PH – 120/240V/PH	PTVL CA 11 149 N. HOCKETT PORTERVILLE	209+784-0010	PORTERVILLE SATELLITE TOLL & EXCH. OFFICES	S3061	117132506E
GM, SER 71, 3PH, 4W, 120/208V, 2 WH TRLR MTD. 20KW AT&T OWNED	SCRM – SUPP. CTR. 24TH & S ST. SACRAMENTO	916+452-8717	DAVS ROOR, RILN CA 11 FLSM CA 13, PLVL CA 12 *CSBT CA ROOR	U3646	2A9312
GM, SER 71, 3PH, 4W 120/208V, 4 WH, TRLR MTD. 2 AXEL					
30 KW	HLBG CA 11 (TOLL) 247 EAST ST. HEALDSBURG	707+545-7891	SBST CA 11, HLBG CA 11 UKIH CA 12, SONM CA 12 SNRS CA 11, CTTI CA 11 *CLOVERDALE PEAK - EUREKA M.W. ROUTE & P&B ROUTE	TM2	58045A
100 KW	ARSN CA 11 2955 OAK ST. ANDERSON	916+365-1132	CNVY CA 11, CTWD CA 11 ARSN CA 11 *M.V. STATIONS	UM6	61132-1
45 KW	SKTN CA 12 7644 ASHLEY LANE STOCKTON	209+835-0010	SKTN CA 12, SKTN CA 14 *FRTN CA ROOR, *EV M.W. ROUTE *WV M.W.	UM7	
75 KW	OKDL CA 11 121 POPLAR ST. OAKDALE	209+847-0012	OKDL CA 11, MDST CA 03 WTFR CA 11, RVBR CA 11 HGSN CA 11, EMPR CA ROOR *WEST VALLEY M.W. ROUTE	UM11	3052
GM, SER 71, 3PH, 4W 120/208V, 4WH, TRLR MTD. 2 AXEL					
60 KW	JCSN CA 01 303 CHURCH ST. JACKSON	209+223-0010	JCSN CA 01, SNRA CA 01 SNAD CA 11 *JCSN ROOR	UM17	63066

SECTION 155-199-902PT

TABLE C (Contd)
SIERRA PACIFIC DIVISION

DESCRIPTION	STORAGE LOCATION	TEL. NO.	DEPENDENT OFFICES	TRAILER NO.	I.D. # OR SERIAL NO.
GM, SER 71, 3PH-4WL 120/208V, 4 WH TRLR MTD. 2 AXEL					
45 KW	LSBN CA 12 5 WEST J ST. LOS BANOS	209+674-2472	LSBN CA 12 *GUSTINE MW *PATTERSON MW (2)	UM13	3053
40 KW	LEMR CA 12 STATE H.W. 198 W/O RD NO. 951 LEMOORE	209+935-1626	LEMR CA 12, LEMR CA 11 *EA & W.V. MW RT.	SF39	4A49847
30 KW	BYPK CA 11 10TH ST. BAYWOOD	805+238-0010	SNMI CA 11, TMTN CA 11 *COAST M.W. RT.	SF40	389-F53
100 KW	MRBA CA 11 5TH & MAIN ST. MORRO BAY	805+543-3620	MRBA CA 11, BYPK CA 11 PSBH CA 11 *COAST M.W. RT.	SF43	6A23
GM, SER 71, 3PH-4WL 120/208V, 4 WH TRLR MTD. 2 AXEL					
60 KW	BKFD CA 11 WEEDPATCH HWY. NR. EDISON HWY. BAKERSFIELD	805+327-6297	BKFD CA 11, BKFD CA 15 ARVN CA 11, LAMT CA 11 SHFT CA 11 *EA & W.V. M.W. RT.	SF42	516742
45 KW	KGBG CA 11 1431 MARION ST. KINGSBURG	209+896-0010	KGBG CA 11 *EA & W.V. M.W. RT. *BACK UP FOR 60 KW AT BKFD EMPIRE	S722	69177
100 KW	CLNG CA 01 198 E. DURIAN ST. COALINGA	209+924-3452	TOLL CONTROL MICROWAVE	N1270	

*SECONDARY PROTECTION

**TABLE D
LOS ANGELES SECTOR**

DESCRIPTION	STORAGE LOCATION
SOLAR 200KW 240 VOLT – 3 PHASE 480 VOLT – 3 PHASE GAS TURBINE TANDEM TRAILER MOUNTED	2420 YATES LOS ANGELES, CALIF.
→ KOHLER 20KW ← 120 VOLT – SINGLE PHASE 240 VOLT – 3 PHASE GASOLINE TRAILER MOUNTED	1050 S. C STREET OXNARD, CALIF.
WAUKESHA 70KW 240 VOLT – 3 PHASE GASOLINE TRAILER MOUNTED	12722 BIRCH STREET HAWTHORNE, CALIF.
SOLAR 200KW 240 VOLT – 3 PHASE 480 VOLT – 3 PHASE GAS TURBINE TANDEM TRAILER MOUNTED	7323 SUNSET BLVD. LOS ANGELES, CALIF.
KOHLER 25KW 120 VOLT – SINGLE PHASE 240 VOLT – 3 PHASE GASOLINE TRAILER MOUNTED	11939 HAWTHORNE BLVD. HAWTHORNE, CALIF.
KOHLER 25KW 120 VOLT – SINGLE PHASE 240 VOLT – 3 PHASE GASOLINE TRAILER MOUNTED	2154 TORRANCE TORRANCE, CALIF.

**TABLE E
SOUTHERN SECTOR**

SET NO.	SIZE (KW & PHASE)	STORAGE LOCATION
1 (SEE NOTE 3)	75KW - 3 PHASE	127 4TH STREET CALEXICO, CALIF.
2	25KW - 3 PHASE 15KW - 1 PHASE	2525 N. ORANGE-OLIVE RD. ORANGE, CALIF.
3	20KW - 3 PHASE 20KW - 1 PHASE	4042 37TH STREET SAN DIEGO, CALIF.
4	15KW - 3 PHASE 10KW - 1 PHASE	225 N. LAS POSAS STREET SAN MARCOS, CALIF.
5	10KW - 1 PHASE	BAKER POC BAKER, CALIF.
6	15KW - 3 PHASE 10KW - 1 PHASE	466 PINE STREET HOLTVILLE, CALIF.
7	15KW - 3 PHASE 10KW - 1 PHASE	BAKER POC BAKER, CALIF.
8 (SEE NOTE 3)	200KW - 3 PHASE	507 NORTH BUSH SANTA ANA, CALIF.
9 (SEE NOTE 3)	200KW - 3 PHASE	4042 37TH STREET SAN DIEGO, CALIF.

NOTES:

- SETS NUMBERED 1 TO 4 SHALL BE FUELED WITH CHEVRON WHITE GASOLINE WHERE AVAILABLE. WHERE NOT AVAILABLE, USE ALTERNATE FUEL AS FOLLOWS: CHEVRON AVIATION GASOLINE 80/87, CHEVRON REGULAR GASOLINE (NOT ETHYL).
- ALL SETS ARE TRAILER MOUNTED AND EQUIPPED WITH RING TYPE HITCHES.
- FOR GENERAL AREA COVERAGE DURING TRANSITIONS OR ENGINE REPAIRS AT OFFICES HAVING PERMANENTLY INSTALLED ENGINES. SET IS NOT ARRANGED TO COVER CDOs EQUIPPED WITH ARKTITE RECEPTACLES.