NETWORK HARMS HANDLING AND REPORTING PROCEDURES

CONTENTS PAGE

1. GENERAL

1.01 This section addresses the administrative procedures to be followed by field operations personnel when network harms caused by customer-provided equipment (CPE) or other common carriers (OCCs) are detected. In addition, it describes harms and the types of operating conditions that field operations personnel might experience as a result of harms being introduced into the network by CPE or OCCs. It should be noted that the definition of CPE includes customer-owned and/or customer-installed inside wiring, whether authorized or unauthorized.

1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

1.03 Recommendations for changes, additions, or deletions to this section should be forwarded as specified in Section 000-010-015.

1.04 Network harms are usually classified under the following categories:

(a) Hazardous Voltage

(b) Excessive Signal Power

(c) Longitudinal Imbalance

(d) Improper Network Control Signaling.

1.05 Improperly designed, manufactured, installed, operated or maintained terminal equipment may cause harm to the network. The Federal Communications Commission (FCC) Registration Program attempts to control harms by providing technical requirements for terminal equipment. However, malfunctioning terminal equipment may still harm the network when it results in:

(a) Electrical hazards to telephone company (TELCO) employees

(b) Damage to TELCO equipment

(c) Malfunction of TELCO billing equipment

(d) Degradation of service to persons other than the party calling or being called from the subject terminal equipment

(e) Wasteful use of TELCO resources and facilities.

2. DESCRIPTION OF NETWORK HARMS

HAZARDOUS VOLTAGE

2.01 Voltage levels in telephone plant are considered hazardous to TELCO employees when they exceed the following levels for more than one second:

(a) 70v peak or 50v Root Mean Square (RMS) for continuous ac voltages (most test desk meters including the 14- and 16-type Local Test Desks (LTDs) are calibrated in RMS)

(b) 135v to ground for continuous dc voltages

Note: Exceptions to the previously mentioned levels would apply for voltages used for network control signaling and supervision, which should be consistent with standards employed by the telephone companies. In addition, certain Bell System maintenance procedures (eg, the momentary application of breakdown voltage as covered in Section 634-305-501) and certain special services (eg, private line metallic circuits as specified in PUB 43401), can exceed these defined levels. However, Bell operating procedures require specific controls and administrative practices to ensure the protection of the network and TELCO employees during these circumstances.

2.02 Some indicators which may signal the presence of hazardous voltage are:

(a) Automatic Line Insulation Test (ALIT) Foreign Electromotive Force (FEMF) printouts

(b) Electronic Switching System (ESS) Power Cross (PX) and Showering Line (SHWL) test printouts

(c) Blown fuses, heat coils, or protectors

(d) Damaged, smoking, charred, or excessively warm station equipment or wiring, protective connecting arrangements (PCAs), or data access arrangements (DAAs)

(e) Damaged central office equipment.

2.03 The BSPs describing LTD operation (Section 662-400-500 for the 14-type LTD and Section 662-410-500 for the 16-type) give procedures for measuring ac and dc voltages.

EXCESSIVE SIGNAL POWER

2.04 Terminal equipment which transmits excessive signal power may induce either noise or crosstalk in other pairs under the same cable sheath, thereby adversely interfering with the service of others and degrading the quality of service provided over the network. Excessive signal power in the network can cause broadband carrier system overloads and failures. In addition, excessive signal power and longitudinal imbalances can affect network control signaling, including signals that originate in central offices and those that originate in equipment on a customer's premises.

2.05 Data and nonvoice special services are the most probable sources of excessive signal power due to the continuous nature of data signals. Excessive signal power levels may often be detected in the Serving Test Centers (STCs), Data Test Centers (DTCs), or the Special Service Centers (SSCs). When the Repair Service Bureaus (RSBs) detect possible cases of excessive signal power they should refer these suspected cases to an STC, DTC, or SSC for further testing and investigation.

Note: Test tones introduced by the TELCO under controlled conditions are not considered harms.

2.06 Signal power is considered excessive when:

(a) For ***private line voice bandwidth data*** services, averaged over any 3-second interval, it exceeds -13dB relative to the facility design transmission level point (TLP). Report cases where CPE causes the 3-second average of signal power to exceed -9dB relative to the TLP. Signal power test methods for private line voice bandwidth data services are given in Section 314-410-XXX.

(b) For ***switched network data*** services, averaged over any 3-second interval, it

exceeds -12dBm at the main frame of the local serving central office. Report cases where CPE causes the 3-second average of signal power to exceed -8dBm at the main frame. Signal power test methods are given in Section 314-205-XXX.

2.07 Some indicators that excessive signal power may exist are:

- Broadband carrier failures
- Noise and crosstalk reports
- Abnormally loud tones on the line.

LONGITUDINAL IMBALANCE

2.08 Crosstalk is the transfer of an electrical signal from one pair of wires to another pair of wires where it might cause noise or interference with signals on the second pair. This coupling between the wire pairs in a cable is controlled by electrically "balancing" the two wires of each pair with respect to all other wires in a cable. The objective is to provide, as nearly as possible, identical exposure to interfering signals for each wire of a pair. Balancing tends to eliminate undesirable signals without interfering with normal transmission. This is called longitudinal balancing. ***If the CPE*** connected to the loop ***is not*** also properly balanced so that it provides identical electrical terminations to ground for both wires of the pair, this will produce longitudinal imbalance.

2.09 All combinations of terminal equipment and on-site wiring must have a high degree of longitudinal balance. When one of the conductors in a pair has a fault to ground of less than 25,000 Ohms, a substantial imbalance exists.

2.10 Examples of conditions which can cause an imbalance include:

- Faults to ground
- Crosses to other pairs in the cable
- Improper splices
- Improperly grounded ringers
- Improper terminal equipment.

2.11 Longitudinal imbalance can also be caused by other conditions. However, the condition most readily measured is the imbalance caused by faults to ground with loop-start terminal equipment in the on-hook state.

2.12 Some of the indicators which may signal the presence of a longitudinal imbalance include:

- Noise, hum, or crosstalk reports
- Permanent signals
- ESS line fault indicators of low line resistance (LLR) and SHWL
- ALIT printouts.

IMPROPER NETWORK CONTROL SIGNALING

2.13 Unlike the detection of the other harms, the primary detection process for improper network control signaling is dependent upon the analysis of the effects of this harm as opposed to electrical measurements.

2.14 Network control signaling directs the operation of switching machines in the network including initiating a call, dialing the desired number, ringing the called station, completing the connection to the called station, disconnecting when the conversation is finished, and charging properly for the call. Network control signals are exchanged between interoffice switching facilities, as well as between terminal equipment and the serving central office.

2.15 Cases of improper network control signaling may be indicated by conditions such as:

- Pretrip
- No answers
- Stuck senders or transmitter and receiver time outs
- Wrong numbers caused by mutilated digits
- Improper billing which includes no billing, improper tip party identification associated with an unauthorized extension
- Data calls less than 2 seconds.

Note: In the sequence of establishing a call, the answer signal occasioned by the called party answering the call triggers two actions, stopping (or tripping) the ringing signal and initiation of charging for the call. Bell System central offices require the answer signal to persist for at least 2 seconds in order to initiate charging. In the case of a very brief data call, it is possible to complete the call without initiation of the charging mechanism.

2.16 Due to the complexity of isolating some types of improper network control signaling, detection of this kind of problem may require interaction among work forces such as the local RSB and central office (CO) personnel.

WASTEFUL USE OF TELCO RESOURCES AND FACILITIES

2.17 In addition to the previously mentioned harms, attention should also be given to the reporting of ***any*** irregularities associated with wasteful use of TELCO resources, facilities, or deteriorations in quality of service.

2.18 Examples of such irregularities include:

(a) Excessive number of trouble reports caused by CPE

(b) Multiline installations which do not have sufficient capacity to accept incoming traffic which results in the tie up of COs

(c) Excessive time incurred in establishing service or isolating trouble conditions because of the action of OCCs, CPE vendors, or CPE customers.

Note: It should be understood that the previously defined harms are not applicable in those situations allowed by local tariffs.

3. PROCEDURES FOR HANDLING NETWORK HARMS

3.01 Should customer-provided terminal equipment cause harm to the telephone network as described in Part 2, ***immediate action may be required if:***

(a) Electrical hazards to TELCO personnel are present.

(b) A circuit imbalance or excessive signal power causes degradation of service to persons other than the user of the subject terminal equipment, his/her calling or called party.

(c) Malfunction of TELCO billing equipment exists.

(d) Damage to TELCO equipment has occurred.

Note: If uncertainty exists as to the proper course of action to follow due to unique circumstances concerning a CPE problem, questions should be directed to the departmental Network Harms Coordinator.

3.02 The TELCO shall, where practical, advise the customers that they must disconnect the CPE causing the harm at the point of connection to the TELCO facilities and leave it disconnected until it is repaired. However, where prior notice is not practical or the customer refuses to disconnect the CPE, the TELCO may temporarily discontinue service forthwith, if such action is reasonable under the circumstances. In cases of such temporary discontinuance, the TELCO shall:

(a) Promptly notify the customer by dispatching a repair technician.

(b) Afford the customer the opportunity to correct the situation which gave rise to the temporary discontinuance.

(c) Inform the customer of the right to bring a complaint to the FCC.

(d) Advise the Business Office via Form E-6670 of action taken. (See Section 660-101-318.)

3.03 Except in cases where the harms present a hazard to personnel or serious service impairment, TELCO employees must have ***prior*** approval of the RSB supervisor before disconnecting the service of the CPE customer.

Note: Any reference to RSB shall be meant to include STC, DTC, or SSC throughout the remaining portion of this practice.

3.04 TELCO employees shall avoid any comments or arguments with customers and only advise them that the TELCO must disconnect the service

or the customer must agree to disconnect and repair the CPE.

3.05 The RSB supervisor will be responsible to review each case of harm to assure that it is properly documented on the Network Harm Report Form E-10120 (Part 4) and that the TELCO took the appropriate action because:

(a) The burden of proof concerning the removal of CPE causing harm rests with the TELCO and must be consistent with local tariffs and practices.

(b) The TELCO must substantiate that harm to the network has occurred.

3.06 RSBs must retain a copy of all supporting documents such as:

- Line card records
- Trouble tickets
- Tariff Violation Notice, Form E-6670
- Maintenance of Service Charge or Form E-6700
- Customer correspondence
- General notes

according to local company retention requirements. ***Copies*** of these documents ***must*** be forwarded with each Network Harm Report to the departmental Network Harms Coordinator.

3.07 Maintenance of Service Charge (MSC) will apply whenever a repairperson makes a visit and determines the trouble resulted from CPE per Section 660-101-312.

3.08 All trouble reports applying to TREAT/MCTRAP and caused by CPE should be closed out to Disposition Codes 12 or 13, for CPE authorized or unauthorized, respectively..

Note: Do not take action in those cases where local tariffs allow for exceptions to the limitations defined in Part 2, Description of Network Harms.

4. NETWORK HARM REPORT, FORM E-10120

4.01 All cases of harm must be reported within three working days using the Network Harm Report, to the departmental Network Harms Coordinator.

4.02 The Network Harm Report should be completed for all cases of network harms as described in Part 2 when caused by CPE or OCCs. This also includes:

(a) Cases involving wasteful use of TELCO resources and facilities (See 2.17) but not necessarily a tariff violation.

(b) Cases involving TELCO detection of longitudinal imbalance and excessive signal power without any known degradation of service to a third party.

4.03 Whenever a Network Harm Report is prepared by the RSB, copies of all supporting documentation (See 3.06) should be attached prior to sending it to the departmental Network Harms Coordinator.

4.04 The company Network Harms Coordinator (see Part 5) shall insure that the Network Harm Reports and associated supporting documents are accurate and complete. A final typed Network Harm Report should be prepared for each case reported, and, together with copies of the supporting documentation be forwarded monthly to AT&T.

4.05 The company Network Harms Coordinator shall keep all Network Harm Reports and associated supporting documents on file indefinitely.

4.06 The company Network Harms Coordinator is responsible to report to AT&T by the tenth working day of each month all cases of network harms or the absence of any reported harms incurred during the previous month. These reports should be sent to:

Engineering Manager—Technical Policy Studies
Room 3361B2
American Telephone & Telegraph Company
295 North Maple Avenue
Basking Ridge, New Jersey 07920

4.07 See Fig. 1 for a description of the Network Harm Report Form E-10120. Instructions for completion of the form follow:

(a) ***Serial No.:*** Reporting form serial numbers will be assigned by the Harms Coordinator in each company beginning each year with 001.

(b) ***Company:*** Enter telephone company name.

(c) ***District:*** Enter name of the local telephone district(s) where harm was detected.

(d) ***CO Name/Type:*** Enter name of the local CO where harm was detected and indicate type of switching system (if applicable).

(e) ***Name/Address of Customer (OCC) Causing Harm:*** Enter name, address, and main telephone number of the customer causing the network harm (or name of OCC).

(f) ***Date of Detection:*** Indicate date when harm was first identified.

(g) ***Class of Service:*** Indicate the class of service of the line causing the network harm.

(h) ***Description of Harmful CPE/OCC Facility:*** Indicate type of equipment involved and number of lines or stations (eg, 2000 line dial PBX).

(i) ***CPE Registration No.:*** Enter CPE registration number (if applicable) or reason there is none (eg, equipment is "grandfathered").

(j) ***Make/Model No.:*** Enter name of CPE manufacturer and model number of the registered or grandfathered device.

(k) ***Means of CPE Connection:*** Describe in detail how the CPE is connected to the TELCO facility (eg, PCA, voice jack, hard wired to 66-type block, etc), and indicate whether the equipment is authorized or unauthorized by checking the appropriate box.

(l) ***Type of Harm:*** Indicate which of the four harms is being reported by checking the corresponding box. On the line next to that harm, enter the measured value of the harm:

(1) For ***Hazardous Voltage,*** indicate the magnitude of the voltage, whether it is ac or dc, whether the voltage reading was made tip to ground (T-G), ring to ground (R-G), or tip to ring (T-R), and whether the voltage reading is peak or RMS.

(2) For ***Excessive Signal Power,*** indicate the magnitude of the signal and the point at which the measurement was made (eg, main frame, demarcation, etc).

(3) For ***Longitudinal Imbalance,*** indicate the magnitude of the imbalance in ohms.

(4) For ***Improper Network Control Signaling,*** indicate the effect of the improper signaling (eg, stuck senders, mutilated digits, etc), indicate the magnitude of the problem, and indicate (where applicable) the normal rate of occurrence of that problem.

(m) ***Effect:*** Indicate which of the five known effects were caused by the harm by checking the corresponding box. If the effect is not one of those shown, check "other" and describe the effect on the line provided.

(n) ***Describe in Detail the Observed Effect:*** Describe in ***detail*** the observed effect of the network harm on third parties (eg, trouble reports from other customers complaining about noise), or the effect observed at the central office.

(o) ***If Trouble Report:*** If trouble is reported, indicate the source of the report (that is, employee or customer), the trouble report type in detail (that is, an exact description of the reported trouble), and describe in detail the found cause of the trouble.

(p) ***Action Taken to Correct Condition:*** Describe in detail what action was undertaken (and when) to correct the harm condition.

(q) ***Time Spent to Correct Condition:*** Indicate the total TELCO personnel time spent to correct the harm condition (eg, CO craft/management—time, I&R craft/management, engineering management time).

Check List of Supporting Documentation: Where applicable, all the supporting ɔcumentation listed should be attached to the ɪrm plus any other pertinent material. Indicate ıe information attached by checking the ɔrresponding box.

ɜ) ***Prepared by/Tel. No./Date:*** Enter the name and telephone number of the person vho filled out the form and enter the date.

8 See Fig. 2 for examples of two completed Network Harm Report forms.

LIST OF COMPANY NETWORK HARMS COORDINATORS

ant Operations Supervisor—Maintenance
ɔuthern Bell Telephone Company
urt Building—Room 1424
tlanta, Georgia 30303
.04) 529-7969

)istrict Manager
nstallation and Repair Staff
ndiana Bell Telephone Company, Inc.
:20 North Meridian Street—Room 1515
ndianapolis, Indiana 46204
317) 265-8646

District Staff Manager
The Mountain States Tel & Tel Co.
)30 Fifteenth Street—Room 350
P.O. Box 960
Denver, Colorado 80202
(303) 624-8247

District Staff Manager
Pacific Northwest Bell Telephone Company
1600 Bell Plaza—Room 3B04
Seattle, Washington 98191
(206) 345-4520

:nstallation, PBX & Test Center—Supv.
Cincinnati Bell Company
'25 East Fourth Street—Room 310
'incinnati, Ohio 45202
513) 397-4701

istrict Staff Manager
e Pacific Tel & Tel Company
Second Street—Room 618
Francisco, California 94105
\ 542-4521

Customer Services Supv. Repair Operations
Northwestern Bell Telephone Company
100 South 19th Street—Room 1020
Dodge Street Building
Omaha, Nebraska 68102
(404) 422-2679

Network Harms Coordinator
Southwestern Bell Telephone Company
100 North Broadway—Room 925
St. Louis, Missouri 63102
(314) 247-4349

District Staff Supervisor, Assignment & RSB
Illinois Bell Telephone Company
225 West Randolph Street—Room 23B
Chicago, Illinois 60606
(317) 727-6294

Plant Methods Supervisor
New Jersey Bell Telephone Company
540 Broad Street—Room 1601B
Newark, New Jersey 07101
(201) 649-3389

District Staff Manager
Facility Transmission Engineering
South Central Bell Telephone Company
600 North 19th Street—26th Floor
P.O. Box 771
Birmingham, Alabama 35201
(205) 321-8240

Staff Engineer
Bell Telephone Company of Pennsylvania
One Parkway—16th Floor
Philadelphia, Pennsylvania 19102
(215) 466-2482

Staff Supv—Customer Services Methods
Chesapeake & Potomac Telephone Companies
1730 Pennsylvania Avenue—Room 700
Washington, D. C. 20006
(202) 392-3828

District Engineering Manager
Michigan Bell Telephone Company
27777 Franklin Street—Room 1802
Southfield, Michigan 48034
(313) 552-1677

Plant Supervisor—Maintenance
New England Telephone Company
185 Franklin Street—Room 1501

Boston, Massachusetts 02107
(617) 743-2337

Superintendent District Equipment Staff
Southern New England Telephone Company
310 Orange Street—3rd Floor
New Haven, Connecticut 06506
(203) 771-2367

Plant Staff Supervisor—Methods
Wisconsin Telephone Company
722 North Broadway—6th Floor
Milwaukee, Wisconsin 53202
(414) 678-2406

Methods Supv—Interconnection
New York Telephone Company
1095 Avenue of the Americas—Room 2830
New York, New York 10036
(212) 395-7822

District Manager—Special Svcs
Ohio Bell Telephone Company
100 Erieview Plaza—Room 423
Cleveland, Ohio 44114
(216) 822-7848

Staff Manager
AT&T—Long Lines
Room 3C252
Bedminster, New Jersey 07921
(201) 234-6590

District Staff Manager
Nevada Bell
645 East Plumb Lane—Rm. 261
Reno, Nevada 89520
(702) 789-6107

NETWORK HARM REPORT

E10120

Serial No. _____

Company: _____ District(s): _____

C.O. Name/Type: _____

Name/Address Of Customer (OCC) Causing Harm: _____

_____

_____

Date Of Detection: _____ Class Of Service: _____

Description Of Harmful CPE/OCC Facility: _____

_____

CPE Registration No.: _____ Make/Model No.: _____

Means Of CPE Connection: _____

_____

☐ Authorized ☐ Unauthorized

Type Of Harm:

- ☐ Hazardous Voltage
- ☐ Excessive Signal Power
- ☐ Longitudinal Imbalance
- ☐ Improper Network Control Signaling

Value _____ ☐ a.c. ☐ d.c.

Value _____

Value _____

Type/Value _____

_____

☐ T-G
☐ R-G
☐ T-R

_____ (meas. pt.)

_____ (normal rate)

Effect:

- ☐ Electrical Hazards To Telco Employees
- ☐ Damage To Telco Equipment
- ☐ Malfunction Of Telco Billing Equipment
- ☐ Degradation Of Service To "Third Party"
- ☐ Wasteful Use Of Telco Resources/Facilities
- ☐ Other (Specify) _____

Describe In Detail The Observed Effect: _____

_____

_____

_____

If Trouble Report:

Source ☐ Customer ☐ Employee

Type (Be Specific) _____

_____

Trouble Found _____

_____

Action Taken To Correct Condition: _____

_____

Time Spent To Correct Condition: _____

_____

Check List Of Supporting Documentation:

- ☐ Line Card
- ☐ Trouble Ticket
- ☐ Service Discontinuance Notice
- ☐ Tariff Violation Notice
- ☐ Maintenance Of Service Charge
- ☐ Written Correspondence
- ☐ Narratives Of Conversations
- ☐ Central Office OCC/CPE Facility Failure Report
- ☐ Miscellaneous

Prepared By _____ Tel. No. _____ Date _____

Fig. 1—Network Harm Report Form

NETWORK HARM REPORT

E10120

Serial No. 082

Company: ABC Bell District(s): South Streamline Repair District

C.O. Name/Type: North King CO/5XB Tandem

Name/Address Of Customer (OCC) Causing Harm: Martin Medical Center
144 44th Street
Streamline, ABC 200-741-2233

Date Of Detection: 9/9/77 Class Of Service: PBX

Description Of Harmful CPE/OCC Facility: 2000 Line Dial PBX

CPE Registration No.: None Required Make/Model No.: XYZ Company/Model 1

Means Of CPE Connection: Separation provided by CDH, C22, and CET interface units (see attachment)

☒ Authorized ☐ Unauthorized

Type Of Harm:

- ☐ Hazardous Voltage — Value ____ ☐ a.c. ☐ d.c. ☐ T-G ☐ R-G ☐ T-R
- ☐ Excessive Signal Power — Value ____ ____ (meas. pt.)
- ☐ Longitudinal Imbalance — Value ____
- ☒ Improper Network Control Signaling — Type/Value stuck senders/251 — 20 (normal rate)

Effect:

- ☐ Electrical Hazards To Telco Employees
- ☐ Damage To Telco Equipment
- ☐ Malfunction Of Telco Billing Equipment
- ☒ Degradation Of Service To "Third Party"
- ☒ Wasteful Use Of Telco Resources/Facilities
- ☐ Other (Specify) ____

Describe In Detail The Observed Effect: (See Attachment)

If Trouble Report:

Source
- ☒ Customer
- ☐ Employee

Type (Be Specific) Martin Medical Center could not be called. Customers got only noise.

Trouble Found (See Attachment)

Action Taken To Correct Condition: (See Attachment)

Time Spent To Correct Condition: CO craft - 7 hours; CO Management - 3 hours; Repair Craft - 1 hour; Repair Management - 6 hours; Engineering Management - 10 hours.

Check List Of Supporting Documentation:

- ☐ Line Card
- ☒ Trouble Ticket
- ☐ Service Discontinuance Notice
- ☒ Tariff Violation Notice
- ☐ Maintenance Of Service Charge
- ☐ Written Correspondence
- ☐ Narratives Of Conversations
- ☐ Central Office OCC/CPE Facility Failure Report
- ☐ Miscellaneous

Prepared By F. Hatch Tel. No. 200-741-2000 Date 9/13/77

Fig. 2—Network Harm Report—Completed (Sheet 1 of 4)

ATTACHMENT

NETWORK HARM REPORT 082

DESCRIBE IN DETAIL THE OBSERVED EFFECT:

Effect observed at CO: Calls going to Martin Medical resulted in repeated stuck senders as identified by COMAS.

Senders became stuck because battery and ground was received from CPE but no "start" indication. Expected start in this case comes from "Wink Pulse." "Start" was not received because of failure of XYZ PBX.

Effect of Trouble on Third Parties:

A. Martin Medical Customers: Received no answer or false busy—later received Telco recorded announcement. Trouble Report received at the CRSA on 9/9/77.

B. General Telephone Users: No major effect of other traffic getting through tandem. SADR measured one delay during this period.

TROUBLE FOUND:

At 9:30 am on Septermber 9th, a program failure in a XYZ PBX caused all three operator consoles to become inoperative. Incoming traffic backed up resulting in a massive number of stuck senders in the Treewick Tandem.

ACTION TAKEN TO CORRECT CONDITION:

A. Telco: Made two thirds of the trunks busy, thereby, restricting stuck senders. At direction of SMAC wired all trunks to recorded message stating that the telephone service at the hospital was temporarily out of service. This reduced reorders. XYZ company personnel cleared program trouble at approximately 1100 hours. Trunks restored by 1130 hours.

B. XYZ company dumped and reentered program of PBX computer.

Fig. 2—Network Harm Report—Completed (Sheet 2 of 4)

NETWORK HARM REPORT

E10120

Serial No. 095

Company: ABC Bell District(s): Altune - RSB

C.O. Name/Type: NA

Name/Address Of Customer (OCC) Causing Harm: John Doe
85 Smith Drive
Altune, ABC 500-741-2233

Date Of Detection: 7/07/77 Class Of Service: 1FR

Description Of Harmful CPE/OCC Facility: Unauthorized rearrangement of inside wiring by customer caused foreign voltage to be connected to telephone line via customer owned switch.

CPE Registration No.: NA Make/Model No.: NA

Means Of CPE Connection: Customer owned/installed standard type wall switch

☐ Authorized ☒ Unauthorized

Type Of Harm:

- ☒ Hazardous Voltage — Value 110V ☒ a.c. ☐ d.c.
- ☐ Excessive Signal Power — Value _____ _____ (meas. pt.)
- ☐ Longitudinal Imbalance — Value _____
- ☐ Improper Network Control Signaling — Type/Value _____ _____ (normal rate)

☐ T-G ☐ R-G ☒ T-R

Effect:

- ☒ Electrical Hazards To Telco Employees
- ☐ Damage To Telco Equipment
- ☐ Malfunction Of Telco Billing Equipment
- ☐ Degradation Of Service To "Third Party"
- ☐ Wasteful Use Of Telco Resources/Facilities
- ☐ Other (Specify) _____

Describe In Detail The Observed Effect: On 7/07/77, an Altune Installer Repairman attempting to correct a "noisy" line condition received an electric shock when he lifted the subscribers drop wire from the aerial cable terminal while working from an aerial bucket. The repairman was later taken to a hospital for a "precautionary" examination (which was negative to injury).

If Trouble Report:
Source ☒ Customer ☐ Employee

Type (Be Specific) Customer complained of noisy line, can't call, and can't be called.

Trouble Found Investigation revealed that the subscriber, while remodeling his garage, rewired an extension bell through an electrical switch box. (See attachment for more details).

Action Taken To Correct Condition: Initial telephone repairman arranged for disconnection of telephone wiring from customer owned ac switch. On 7/8/77 foreman accompanied by another repairman rewired station according to Bell System practices.

Time Spent To Correct Condition: Approximately 2 ½ hours excluding time spent documenting the case.

Check List Of Supporting Documentation:

- ☒ Line Card
- ☒ Trouble Ticket
- ☐ Service Discontinuance Notice
- ☒ Tariff Violation Notice
- ☐ Maintenance Of Service Charge
- ☐ Written Correspondence
- ☒ Narratives Of Conversations
- ☐ Central Office OCC/CPE Facility Failure Report
- ☐ Miscellaneous

Prepared By F. Hatch Tel. No. 200-741-2000 Date 8/2/77

Fig. 2—Network Harm Report—Completed (Sheet 3 of 4)

ATTACHMENT

NETWORK HARM REPORT 095

TROUBLE FOUND:

The double switch arrangement (one switch controlled an outside light and the other controlled the extension bell) was incorrectly installed by the subscriber. The subscriber failed to remove the "bus bar" between the switches. The wiring error caused the telephone wires to be energized with 110 volts each time the porch light was switched on.

Fig. 2—Network Harm Report—Completed (Sheet 4 of 4)