

NUMERICAL INDEX--DIVISION 008
EMERGENCY RESTORATION PLANS

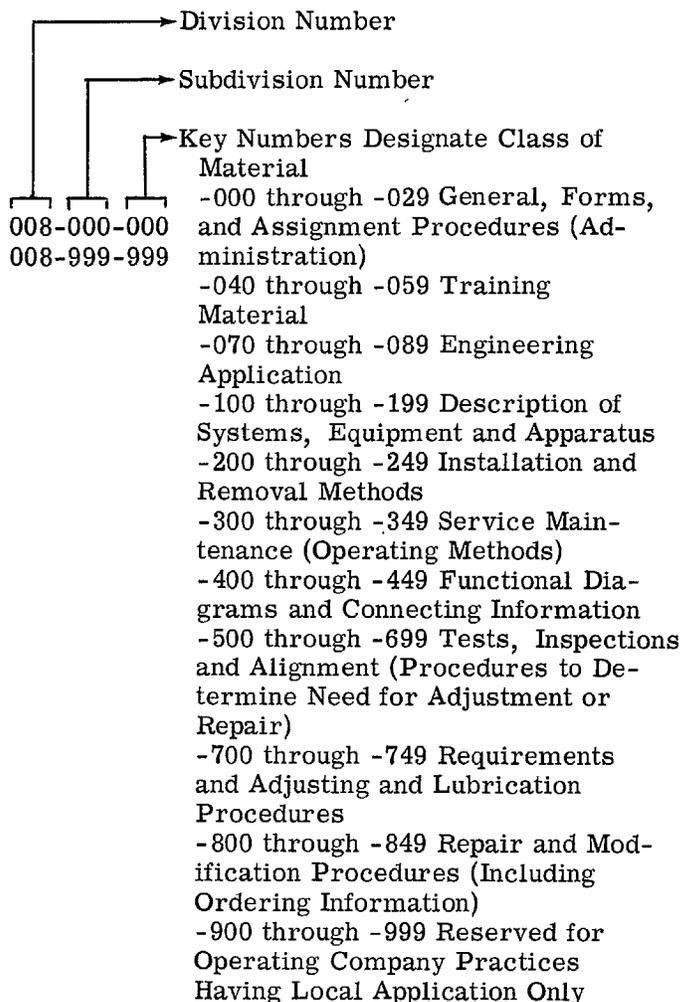
1. GENERAL

1.01 Attached to this Title Page is an index of General System Practices in Division 008. When the index is revised only the attached page(s) will be replaced. THIS TITLE PAGE IS TO BE RETAINED.

1.02 An asterisk (*) indicates an item which has been added or changed since the previous issue of the index.

1.03 "Add." is the abbreviation for addendum, and "App." is the abbreviation for appendix.

1.04 The key to the numbering arrangement follows:



2. NUMERICAL INDEX

2.01 All Sections, which have been issued to date, within Division 008 are listed in the attachment by SECTION number, ISSUE number, and SUBJECT.

2.02 The bold-face numbers, appearing in the attachment indicate the division-subdivision numbers (six digits) and their respective titles. Following each six-digit number are the issued Section numbers (nine digits) and their respective titles.

EMERGENCY RESTORATION PLAN
GENERAL CONSIDERATIONS

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1. GENERAL

1.01 This section presents the basic requirements and general considerations for a fundamental emergency restoration plan involving all types of telephone plant. Actual establishment and implementation of such a plan is the responsibility of the individual System companies.

1.02 The emergency restoration plan as outlined in this section is designed to make maximum use of the existing company organization. However, an effective emergency plan requires the delegation of certain responsibilities to an emergency "group" or organization which should be responsible for advance consideration of activities associated with conditions having a major effect on telephone service. This "emergency" organization should also be responsible for the overall direction of restoration work so that it may be coordinated at the appropriate levels and handled safely and expeditiously. The success of an emergency plan is dependent on keeping it as uncomplicated as possible with a minimum amount of "red tape".

Emergency Organization

1.03 Emergency organizations will vary from company to company depending upon the basic company organization as well as the size of operation and nature of operating area.

Emergency Conditions

1.04 Following is a general guide to the types of situations that require the existence and use of an effective emergency restoration plan:

(a) More than 10 per cent of the toll circuits in one general area, division, or district out of service due to a storm or other disaster.

(b) More than 25 toll circuits out of one office, in one general area, or on one route out of service for more than two (2) hours.

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- (c) Any size trunk or toll cable total failure.
- (d) One or more General System or connecting company operated exchanges without long distance service for more than three hours.
- (e) Exchange cable total failure (404 pairs or larger).
- (f) Station outages totaling 400 or more stations.
- (g) Any damage resulting from known or suspected sabotage or willful destruction.
- (h) Common equipment failure, power failure, or other condition which materially affects service or might cause public reaction.
- (i) Any damage to central office equipment resulting from fire or explosion.
- (j) Any battery or C. E. M. F. cell explosion.
- (k) Conditions following a storm or serious disaster which may become nationwide news and might raise questions as to the extent telephone service was affected.
- (l) Total plant damage from any cause exceeding about \$25,000.

Annual Review

1.05 The infrequent use in some companies of the full scale emergency organization does not lessen the need for at least an annual review of the emergency plan by related individuals on a company, area, division, district or other appropriate levels.

Coordination Meeting

1.06 To insure adequate understanding and application of the emergency restoration plan, coordination meetings should also be conducted periodically. These meetings should be the medium through which carefully considered

detailed plans are developed for use in extreme emergencies. A review of past experience and the possible effect of impending disasters should indicate the type of emergency measures that should be used.

General Reports

1.07 It is recommended that service interruptions, plant damage or other conditions not having a major effect on the telephone plant or customer service but considered of general interest be reported through lines of company organization. Good judgment should be exercised in determining the incidents to report and the details required for an informative resumé that will acquaint management personnel with the occurrence.

Major Damage Reports

1.08 Arrangements should be made to keep all departments informed of damage and restoration activities when major service-affecting conditions occur. In some cases this information is of interest to non-affected areas, districts, etc. The following are several recommended types of reports:

(a) Flash Report - As soon as information is available of any impending condition that is likely to result in major damage or interruption to service, a report should be made by telephone or teletypewriter through lines of company organization including the emergency organization. This report should be in enough detail to indicate the imminence and possible effect of the condition.

(b) Initial Report - As soon as practicable after an occurrence of major importance, a report should be made by telephone or teletypewriter, through lines of company organization including the emergency organization. The "Initial Report" should furnish as much pertinent information as is available regarding the severity and the approximate amount of damage, if known, at that time.

(c) Subsequent Reports - Immediately following an occurrence which has a major effect on the telephone plant, field surveys of the damage and the results of these surveys, the reports of trouble from other sources and the restoration activity should be reported through lines of company organization including the emergency organization. The information should be furnished on an area, division, or district basis as appropriate for the conditions involved. More complete details as required by exchanges or toll or trunk routes should be reported by telephone or teletypewriter to the emergency organization headquarters receiving the reports.

2. COMPANY OR GENERAL OFFICE RESPONSIBILITIES

2.01 It is recommended that the operating company operating vice-president, or someone delegated by him, be responsible for the formulating of advance emergency plans for the company general office operations.

Coordination Meetings

2.02 Coordination meetings should be held for the appropriate general office personnel, at least on an annual basis, to discuss the existing emergency plan. Such discussions should include a review of all methods and procedures employed in the restoration of service along with the responsibilities involved. Changes, additions, or deletions should be made in the plan as a result of these meetings.

Placing Plan in Operation

2.03 It is recommended that it be the responsibility of the operating vice-president, or someone delegated by him, to place the emergency plan in operation on a company-wide basis. One or more alternate individuals should also be designated in order to insure sufficient flexibility in the plan to meet all emergencies. It is also recommended that appropriate individuals be delegated the responsibility of placing the plan in operation on an area, division or district basis.

Alerting Personnel

2.04 A procedure should be established for alerting general office personnel whose services are likely to be required to handle the staff operations during an emergency.

Force Requirements

2.05 As soon as possible after a comprehensive report has been received of a service-affecting condition which obviously will affect service for several days, the emergency organization should analyze the situation and recommend to the appropriate management personnel whether or not forces should be moved into the area from other areas of the company, other states, or other companies, in order to shorten the restoration interval.

Material and Equipment

2.06 Along with the force requirement analysis, the emergency organization should, on the basis of area, division, etc. reports, recommend or take the required steps to expedite procurement of needed material or equipment, if the lack of such items is likely to delay restoration work.

3. AREA, DIVISION, AND DISTRICT RESPONSIBILITIES

3.01 The responsibility for formulating the advance emergency plans for an area, division, or district should be assigned to an appropriate manager or other qualified individual.

Coordination Meetings

3.02 Coordination meetings should be held periodically to review the "local" emergency plans, and change or up-date them when necessary. On occasion it will be desirable to have general office or staff representation at such meetings.

Placing Plan in Operation

3.03 There should be a common understanding of all "local" emergency responsibilities so that the appropriate manager or supervisor as well as delegated alternates may place the emergency plan in operation on short notice.

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Alerting Personnel

3.04 Advance plans should be made for alerting the required personnel of impending disasters and notifying them of specific assignments. Such plans should include various methods of notification in the event telephone service is interrupted.

Review of Plans

3.05 If time permits and advance warnings indicate a major disaster, it may be desirable to call the appropriate coordinating or supervisory personnel together for a last minute review of the plan and for detail assignments.

Daily Meetings and Reports

3.06 During an extreme emergency, regular daily meetings should be held, preferably at night, to review the progress of restoration.

Personnel Records (Other Than Company Personnel)

3.07 Current records showing the name, business address, business telephone number, home address, home telephone number or telephone number to be called in an emergency, should be maintained for the following:

- (a) Telephone contractor supervisors.
- (b) Public authorities.
- (c) Public utility authorities who might be needed.
- (d) Fire, Police, Power, Gas and Water Departments.
- (e) Joint or foreign wire using companies.

Material Records

3.08 Normal job requirements provide sufficient inventory data for emergency planning. Based on this information the following can be readily determined:

- (a) Poles by class and length.
- (b) Cable by size, gauge and length.

(c) Open wire by size and weight.

(d) Covered wire by type and length.

Equipment and Tool Records

3.09 As a part of the emergency plan, adequate records showing assigned location and other pertinent data should be maintained for the following equipment:

- (a) Motor vehicles.
- (b) Pole trailers.
- (c) Cable reel trailers.
- (d) Wire reel trailers.
- (e) Power take up reels.
- (f) Wire reels.
- (g) Manhole pumps.
- (h) Cable splicers carts.
- (i) Manhole blowers.
- (j) Emergency lighting outfits.
- (k) Portable generators.
- (l) Small tools.

Drawings and Maps

3.10 Normal requirements provide for the availability and maintenance of all necessary drawings and maps. However, plans should be made for emergency replacement of such drawings and maps in case of loss or destruction. Extra copies of city, county, or state maps are often needed in extreme emergencies and this should also be considered in the advance planning.

Buildings

3.11 Consideration should be given to the following check list and the necessary emergency arrangements be made for providing the items that might be needed:

- (a) Additional fire fighting equipment.
- (b) Emergency tarpaulins.
- (c) Emergency portable water pumps.
- (d) Sandbag protection.
- (e) Crew to maintain toilets.
- (f) Crew to provide drinking water.
- (g) Crew to mop or remove snow, ice, or water from floor.
- (h) Extra fuel supply.
- (i) Food supply.
- (j) "On premises" sleeping quarters.
- (k) Emergency heat.
- (l) Emergency lights.
- (m) Special door locks.
- (n) Telephone system to control building entrances.
- (o) Special guards to control building entrances.
- (p) Wire or wooden window and door guards.
- (q) Flood lights on outside of buildings.
- (r) Special locks for fence gates.
- (s) Locks for central office manholes, cable entrance holes, gas meters, water meters, and protection for power entrances.
- (t) Extra house service supplies such as mops, brooms, light bulbs, water pails, company flashlights and lanterns.
- (u) Additional house service employees.
- (v) Extra fuel and parts for emergency pumps and engines.

Outside Plant

3.12 Planning for the coordinated efforts of the outside forces requires advance consideration of the adverse working conditions and problems they are likely to encounter.

3.13 Power hazards must be removed to permit the restoration work to be done safely, and precautions should be taken to insure that the conditions are reported to designated supervisors who should be responsible for having the hazards removed before company workmen start activities in the exposed section.

3.14 Plant is often damaged to such an extent that permanent repairs, with the same type plant, would be impracticable and/or uneconomical. Whenever this condition is encountered, service should be re-established with covered wire or other temporary plant and plans can later be made for the permanent work.

3.15 Dispatching of individual workmen on station troubles, except for special cases, should be avoided if the damage is concentrated and if the "sweep" method of drop wire and station repair can be used to advantage. This method permits better utilization of manpower and vehicles.

3.16 The order and methods of restoration should be a part of a well organized plan. The following should be considered:

- (1) Restore service to isolated exchanges.
- (2) Restore toll service.
- (3) Restore priority customers.
- (4) Restore other services.

3.17 Covered wire may be used for temporary restoration of toll service and trunks to isolated exchanges. Considerable time can be lost replacing poles and placing open wire or cable on a permanent basis in order to re-establish service.

Central Office Coverage

3.18 The central office assignments for work immediately preceding a threatened emergency, and for work during an emergency, should be planned to take full advantage of the available experienced personnel.

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3.19 Equipment overloads that develop without advance warning might require changes in predetermined plans, and capable personnel should be on the job to handle the situation.

3.20 Definite plans should be made to handle permanent signals. The method of handling, records to be kept, etc., should be part of the emergency plan.

3.21 Plans should be made to check fuel supplies, to test all emergency portable equipment, where it is located and where it is likely to be used.

3.22 Small supplies should not be overlooked when advance emergency plans are being made.

Test Centers

3.23 The detail work of the test center must be carefully organized to insure accurate records and to avoid delays in the restoration operations.

3.24 Plans should be made to relieve the test desks of as much of the dispatching responsibilities as is practicable so that full advantage can be taken of the testing facilities.

3.25 Dispatching clerks can be used to assign the work and to record station restorals. The follow-up testing can be done at night and early morning by the test desk.

Emergency Communication System

3.26 Consideration should be given to the use of private lines, magneto lines or portable or mobile radio systems to maintain emergency communication systems.

Priority Service

3.27 The type of emergency will generally control the number of telephones that are to be maintained on a priority basis. Careful consideration should be given to the compilation of a list of customers who are to be given priority service.

3.28 It will probably be advisable to classify the list of priority customers in groups such as "A", "B", and "C". In the event that adequate forces are not available or other conditions prevent the maintenance of service for the entire group, preference can be given to those in group "A", etc.

Special Plans for all Employees

3.29 During some types of emergencies, all employees may not be available to handle their assignments because of sickness, transportation problems, etc. This condition should be given consideration in advance.

3.30 Information regarding imported employees is presented in other parts of this practice. However, it should be recognized that the type of emergency might require special plans to insure adequate level forces on the job. The following items should be considered:

(a) Method of assigning schedules and how employees will be notified.

(b) Lodging - special arrangements may be necessary for forces required to work long and late hours.

(c) Special arrangements may be necessary to provide employees with meals.

(d) Interrupted transportation facilities may require special arrangements for all forces.

(e) The working conditions may be so abnormal that the work clothes ordinarily used are not sufficient to protect them.

(f) Traveling or working money advances may be required for certain employees and this should be considered and arrangements made to have the advances available.

(g) The emergency might require some employees to be quartered in company buildings and arrangements should be made to provide cots, blankets, food, and lights to properly care for these employees.

Storage and Hauling

3.31 To avoid loss of time due to congested storage facilities, consideration should be given to the care of extra vehicles and supplies.

3.32 If storage and workmen quarters do not permit efficient handling of supplies and the dispatching of forces, temporary garages and warerooms should be established.

3.33 Extra supplies required because of emergencies are often delayed in reaching warerooms or the job because of weather conditions or because of limited facilities to handle the extra load. This eventuality should be considered in advance and alternate plans made.

3.34 To minimize loss of company employees' time, contract labor and vehicles should be used to full advantage in hauling and distributing materials and supplies. Some of the work involving supplies and equipment that can be handled with contract labor are as follows:

- (a) Equipping crossarms and distributing to pole locations.
- (b) Hauling wire, cable, reels, and trailers.
- (c) Hauling special construction tools.
- (d) Hauling hardware, tools, and supplies to designated locations in large or small quantities to eliminate need for company forces visiting storerooms.
- (e) Cleaning up and hauling dismantled material.
- (f) Tree removal and tree trimming.
- (g) Removing damaged plant, debris, etc.
- (h) Maintaining storerooms and storeyards.

Field Surveys

3.35 Following any disaster that seriously affects the telephone service, it is imperative that an "on location" or field survey be made of the damage. An effort should be made to utilize every available craftsman, supervisor,

engineer or other employee having the necessary experience, to quickly cover the affected area, determine the extent of damage, and the location of hazardous conditions. Survey crews made up of at least two employees can be assigned a given area or section to check and report damage and hazardous conditions. Chartered air patrols can be used to an advantage under certain conditions. During floods or repeated sleet or wind storms more than one survey may be found necessary to properly plan the job.

3.36 The survey is one of the key operations of the emergency restoration plan. City and county maps, pole and cable records as well as similar material may be selected in advance to guide the survey crews in their coverage of an area.

3.37 In making plans for outside plant surveys, safety practices covering safeguards against electrical hazards should be considered in the planning.

3.38 In addition to the field surveys, which must be completed as quickly as possible, it is necessary to provide for a count of permanent signals in the central offices and for a count of uncleared customer reports in the test centers to determine total stations affected.

Force Requirements

3.39 The results of the field surveys should indicate the volume of work required to restore service and to make permanent repairs.

3.40 Considering subsequent reports, troubles not revealed by the survey, troubles caused by foreign workmen, weather conditions, the type of damage, e.g., drop wire, cable, toll, etc., a careful analysis should be made of the force requirements.

3.41 If the forces available within the affected area are insufficient to handle the restoration work, the additional forces and vehicles that will be required to handle the restoration job should be determined and "outside" help requested.

3.42 Consideration should also be given to housing facilities for imported help and to the availability of supplies.

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3.43 In the overall planning for the job, careful consideration should be given to the type of personnel, equipment, and special tools required from sources outside of the affected area. In planning for additional forces, adequate supervision must be considered. In the arrangements for extra supervisory forces it is desirable that they be selected from the same work group from which the craftsmen are drawn and that they understand their responsibilities.

3.44 The engineering force should be augmented, if necessary to insure prompt release of work orders and prints for the plant forces in their job planning and material procurement. The number of engineers and draftsmen should be determined as soon as the field survey indicates the size of the job to be done. Every effort should be made for the engineers to start their work in advance of the arrival of imported plant forces. An engineer or other qualified supervisor should be assigned to the job of coordinating activities involving power conflicts and foreign wire pole plant.

Supply Requirements

3.45 After the extent of the damage has been determined, a careful estimate should be made of the supplies required for temporary as well as permanent repair work.

3.46 Storage space, hauling, delivery, and shipping facilities must also be considered in the supply plans.

Preparing Employees and Equipment To Be Loaned

3.47 Employees temporarily transferred into areas to assist in the maintenance or restoration of plant should be selected because of their experience and willingness to cooperate under working conditions.

3.48 Every effort should be made to bring about a common understanding of the problems to be encountered due to the emergency, such as, unfavorable weather, congested lodging, long hours of work and other inconveniences.

3.49 Traveling advances sufficient to defray the cost of the trip should be provided for each employee. The advance should, preferably, be issued to a supervisor in charge of a group with whom he will travel.

3.50 Regular working advances, if any, should be checked before employees leave on a temporary emergency transfer.

3.51 Rubber gloves should be sent with all employees who will be required to work on the outside plant.

3.52 A body belt, safety strap, climbers, and a standard set of small tools, in good condition should be sent with all employees who will be required to work on the outside plant.

3.53 Motor vehicles to be loaned should be in good mechanical condition. The brakes, lights, battery and tires, including a spare tire, should be checked and arrangements made to place them in good condition.

3.54 Ladders should be sent with all trucks equipped with ladder racks.

3.55 Tire chains should be sent with vehicles if there is any indication that they will be needed and if they are available at the home location.

3.56 If weather conditions indicate the need, vehicles with defrosters and heaters should be selected if they are available and all vehicles protected with anti-freeze.

3.57 A first aid kit should be furnished each vehicle including passenger cars and these should be fully equipped.

3.58 A list of tools sent on trucks or with employees should be furnished the supervisor in charge, to provide a means of checking tools after the crews are away from their home location.

Receiving Borrowed Employees and Equipment

3.59 When it becomes necessary to borrow employees to assist in the maintenance or restoration of plant, advance preparations should be made for the force to avoid loss of time and misunderstandings. One or more supervisors should be responsible for receiving imported forces and discussing details concerning them. The forces should be advised regarding the following:

- (a) Working conditions (weather, hazards, etc.).
- (b) Restoration plans - The employees should be advised of the restoration plans - schedule for temporary restoration and the approximate schedule for permanent repairs. They should be informed, if known at that time, about how long they will be needed and if they will be allowed time off to return home before the job is completed.
- (c) Lodging (facilities may be limited).
- (d) Regular meals (special arrangements may be necessary).
- (e) Lunches (it may prove advantageous to deliver them).
- (f) Special transportation (to and from place of reporting).
- (g) Handling laundry and miscellaneous expenses.
- (h) Handling expenses while away from home, type of vouchers and method of reimbursement.
- (i) How and to whom accidents and sickness are to be reported.
- (j) Work schedules and job assignments.
- (k) Preparation and forwarding of work and time reports.
- (l) Handling work prints, records, etc.
- (m) Information should be furnished regarding storage of vehicles, purchases of gasoline, oil and vehicle services.

Preparing Employees and Equipment for Return

3.60 Employees and equipment to be returned to their regular locations after being used for emergency restoration work deserve the same considerations for the return trip as provided for in items 3.47 through 3.58 of this practice.

Publicity

3.61 It is important that plans be made in advance to insure that company personnel and the public are kept posted regarding the extent of damage, the general plans for restoration and the progress that is being made.

3.62 Special announcements by commercial radio stations provide a medium through which the general public may be informed of conditions affecting telephone service in an area and of the plans for restoration. Announcements may also be made to ask that calls be confined to those of an emergency nature when an overload of calls prevents the proper handling of service.

3.63 Placards displaced on trucks enroute to the affected area to assist in restoration have proven effective. Similar placards for use on the trucks while they are in the affected area may also be considered worthwhile.

3.64 Coordinated plans should be made to insure that pictures are made for publicity purposes. Pictures showing the extent of damage, working conditions, the departure and arrival of forces to assist in the restoration work as well as "action" scenes, help to emphasize the "spirit of service".