Equipment Removal Guidelines – COE

Contents

(continued)

Contents, continued

1. General

1.1 Purpose

This practice outlines Central Office Equipment (COE) installation safeguards, responsibilities, and required actions for removing and/or transferring equipment.

1.2 Filing Instructions and Supersedutes

Discard all previous issues and associated addenda of this practice and file this issue numerically in your GTE Telephone Operations practices set.

This practice supersedes and cancels:

- All policies, procedures, general instructions, letters, and memoranda which address this subject.
- Any document which provides information contrary to the information contained in this practice.

1.3 Reason for Reissuing

This practice has been reissued to incorporate multiple changes in the content. Read this entire practice to ensure your familiarity with the new information.

1.4 Responsibility

This practice was published by the GTE Telephone Operations Administrative Services Department. For more information about this practice, contact the GTE Telephone Operations Headquarters COE Construction Department.

1.5 Disclaimer

This practice was prepared solely for the use of GTE Telephone Operations. It must be used only by its employees, customers, and end users when installing, operating, maintaining, and repairing GTE Telephone Operations' equipment, facilities, and services. Any other use of this practice is forbidden. The information contained in this practice may not be applicable in all circumstances and is subject to change without notice. By using this practice the user agrees that GTE Telephone Operations will have no liability (to the extent permitted by applicable law) for any consequential, incidental, special, or punitive damages that may result.

2. Overview

2.1 Scope

This practice cannot cover all situations that might occur on a job site during equipment removal. Use this practice as a guide to:

- Point out potential problems to the field forces performing the equipment removal/transfer.
- Emphasize caution during the entire removal/transfer process. Refer to all GTE Telephone Operations safety practices.

CAUTION: All COE job removals (partial and complete) and/or junk work orders are potential major contributors to service outages and degradation. They must be handled carefully.

Do not interpret the instructions in this practice to include the rehabilitation or repair of any equipment designated the responsibility of the:

- Appropriate General Manager – Region Operations.
- Supply and Transportation Department.

2.2 Summary/ Checklist

It would be difficult, if not impossible, to provide specific rules/guidelines for every type of reuse project. We can only provide basic rules and rely on the shipper to make them site specific.

The following is a summary of the information contained within this practice, plus a few general rules.

Section(s)...	Instructs You to...
3.1	Conduct a preremoval meeting with the Central Office Switching Supervisor.
3.2	Establish a preremoval conference call with all involved parties.
3.3	Ensure that all contractors are aware of GTE's quality standards.
4.1 and 6.1	Use extreme caution around live circuits. Review the guidelines and revise or follow them as individual circumstances dictate.
4.1 and 4.2	Review the removal specification for accuracy.
4.3	Do not ship junk.
5.1 through 5.5	Work safely.
7.7	Clean the equipment on the removing end
7	Use the correct packaging materials. Do not use damaged or inappropriate boxes.

(continued)

2.2 Summary/ Checklist, continued

Section(s)...	Instructs You to...
7.4	Every PWC must be shipping in an anti-static bag and enclosed in a box. There are no exceptions.
	Every individual box needs to have an Item ID or part number.
7.6	Insert your feedback slip. Without feedback, positive or negative, we will never know if we are doing a good job.
7	On site-to-site transfers, provide information that you would like to have if you were receiving the equipment. Provide shipping specifications similar to what we receive with new equipment. Box and ship drawings/prints that could be helpful. The information does not have to be typed, but must be legible.
General Information	The ERM can only provide the part number of the equipment to be removed. If you know shorting pins, straps, or anything that comes with the equipment, ship it in the same box, if possible. If it is a site-to-site transfer, review the equipment and ship anything that you feel wouid be of value on the receiving end, even if it not identified in the removal specifications. Any questions can be addressed in the conference call. Add additional items to the miscellaneous specifications. Remove and package the equipment as though you are shipping it to yourself.

2.3 Definitions

The following chart provides definitions for the acronyms and terms used in this practice.

Acronym or Term	Definition
AC	Alternating Current
COE	Central Office Equipment
COEI	Central Office Equipment installation
COMER	Central Office Mechanized Equipment Record
CXR	Carrier
ECLIPS	Engineering Central Office Location inventory Property System
EL	Equipment List (Removal Specifications)
ERM	Equipment Resource Management
JIM	Job Information Memorandum
PCB	Polychlorinated Biphenyl **CAUTION: PCB is used in fluorescent lighting ballasts and small capacitors. It is listed as a hazardous material.**
PDU	Power Distribution Unit
PLE	Private Line Equipment
PSL	Power and Signal Cable Layout
PWC	Printed Wiring Card

2.4 References

The following chart provides sources of suppiementary infonation relating to this practice. me documents could be required for performing certain tasks.

See...	**For Information About...**
007-780-001	Equipment Reuse Provisioning Guidelines
009-026-300	Lockout/Tagout Safety Procedures
117-200-005	Safety Hats – Description, Use, and Maintenance
117-200-006	Asbestos Work Procedures
117-200-008	Protective Gloves – Description and Use
117-400-004	Eye Protection – Description and Use
122-205-001	Battery Removal and Disposal
122-205-002	Lead Acid Batteries- Spills and First Aid Procedures
122-205-003	PCBs – Disposal of Capacitors and Light Ballasts
122-205-004	PCBs – Emergency Procedures
200-001-000	Safety Precautions -Central Office
200-001-004	Equipment Rooms Housekeeping
205-001-500	Power Complex – Installation Test Procedure
205-005-200	Batteries – Central Office and Remote – Installation and Maintenance
220-001-001	Central Office Equipment Installation Activity Procedures
220-001-002	High Risk Activity Notice
PSB 2249”	Ordering Information (Full Body Harness and Lanyard)

* Product Standardization Bulletins (PSBs) are published by the GTE Telephone Operations Standardization Management Department.

3. Preremoval Meeting Conference Call Requirements

3.1 Preremoval Meeting with Site Supervisor

The installation site supervisor (or delegate) must conduct a preremoval coordination meeting with the removal site Central Office Switching Supervisor if the removal process could impact customer service.

3.2 Preremoval Conference Call

Before starting site-to-site removal activity, the removing ERM is responsible for initiating a conference call, including the Project Reuse Engineer (ERM), Supply, Project Engineer, and COEI. Both the shipping and receiving ends (when known) should participate in this call.

Some of the issues that should be addressed in the conference call are:

- Should the equipment be shipped directly to the receiving site or to the warehouse? (Every attempt should be made to ship directly to the receiving site.)
- Should the frames be shipped via an electronic van without using crates?
- Should air shock ride or common carrier be used to transport?
- Should special crates be assembled on the site, or can commercial available packaging be used? (The focus here should be to reduce cost but ensure delivery of a quality product.)
- What type of packaging documentation is required?
- What type and quantity of boxes/crates will be required, and have they been ordered?

3.3 Preremoval Contractor Meeting

When contractors are used for removal activity, the site Installation Supervisor should meet with the contractor site supervisor and the crew to review the removal methods and procedures covered in this document. This practice should be reviewed in detail with them, and the installation Supervisor must verify that they have copies of the practices referenced in Section 2.4.

The main topics to discuss are:

- Job safety and housekeeping.
- Each entity's responsibilities in any planned meetings or conference calls.
- Requirements to provide removal plans.
- Requirements to remove equipment with the same precautions used when installing it, e.g., anti-static protection, etc.

NOTE: These topics should also be discussed with employees assigned to an office removal.

4. Before You Start

4.1 Before You Start

The site Installation Supervisor (or delegate) in charge of removing the equipment must review the office removal specifications. The intention of the work order might be to remove all equipment, or some equipment might remain (for example, special services, carrier equipment, private line equipment, alarm circuits). Carefully check each project and any specific instructions.

Before you start the project, ensure that you:

- Know what is in the office.
- Verify what is to be removed and what is not to be removed.

4.2 Match Removal Specification to Equipment on Site

Regardless of the equipment disposition, all equipment being transferred or removed must match the removal specifications, i.e., quantity, part number, circuit number, location, etc. If the removal specification and equipment information do not match, contact the responsible engineer for corrective action. It is not intended that a complete audit of every item be made. It is important to look at quantities and only spot-check the other items.

NOTE: If the number of inaccuracies is significant, request a site visit/audit by the responsible engineer.

4.3 Condition of Equipment

All equipment identified for reuse must be in working condition before being boxed and shipped. Before an office is removed from service, the responsible COEI Supervisor and the assigned CO Maintenance Supervisor should survey the office for potential maintenance problems. We do not recommend any large-scale testing, only spot-testing as required.

Some of the items to survey are:

- Past trouble reports.
- Site maintenance printout (review for higher than normal activity).
- Equipment tagged as being defective but not sent in for repair.
  - If the tagged equipment is identified for reuse, make a list of the defective equipment. Provide this list to the ERM for their approval to be junked. If it is not practical to junk the identified reuse equipment, the Maintenance Supervisor will be requested to send it in for repair. The defective equipment should be sent in for repair immediately to prevent impeding the required ship date for the materials on another project.
  - When possible, junk any equipment identified as having physical damage.
  - Pay special attention to spare equipment. Random testing is recommended.

Any equipment identified as being unusable should be brought to the attention of the Project Reuse Engineer (ERM) via the JIM process. Send the JIM as soon as practical after the equipment has been identified as unserviceable.

NOTES:

1. **Make every effort to avoid shipping defective or damaged equipment. It is very costly and time consuming when the ship-to site receives a high percentage of defective equipment.**
2. **If identified defective reuse equipment can be replaced with equipment that is not to be reused, it should be replaced; however, ensure that the replacement equipment has the same form, fit, and function of the defective equipment.**

5. Safety and Housekeeping

5.1 Safety

Wear safety hats and eye protection:

- In the equipment removal area.

  AND

- At the discretion of the person in charge.

Specific areas indicated by signs or barrier tape can be designated as safety hat areas.

If the opening in the side of the building is more than six feet above ground level, the employee(s) working at the opening must wear a full body harness with lanyard attached to substantial structure. Employees must also wear a full body harness and lanyard when working on framework or other equipment that is six feet above floor or ground level. (See PSB 2249 for ordering information.)

Have a first aid kit available at all times during equipment removal.

NOTE: Refer to GTE Telephone Operations Practice 200-001-000 for more information.

5.2 Housekeeping

Never cut more cable than can be removed from the work area by the end of the day. All cable that has been cut or removed during the work day must be picked up, placed in proper trash containers/scrap cable containers, and removed from the building at the end of each work day. Refer to GTE Telephone Operations Practices 220-001-001 and 200-001-004.

5.3 Hazardous Materials

Inspect the work area for potential safety hazards, e.g., asbestos, PCBs, batteries. Refer to the following GTE Telephone Operations Practices for more information about work procedures around hazardous materials.

- 117-200-006, Asbestos Work Procedures.
- 122-205-001, Battery Removal and Disposal.
- 122-205-002, Lead Acid Batteries – Spills and First Aid Procedures.
- 122-205-003, PCBs – Disposal of Capacitors and tight Ballasts.
- 122-205-004, PCBs – Emergency Procedures.

5.4 Tools Properly Insulated

All tools used around power or live circuits must be properiy insulated. This includes:

- Compression tools.
- Wire wrap/unwrap
- Wire cutters.
- Pliers.
- Torque wrenches.

Refer to GTE Telephone Operations Practice 200-001-000 for more information about tools.

5. Safety and Housekeeping, continued

5.5 Miscellaneous

Note the following guidelines when removing equipment.

Item:	Guidelines:
Halon and Fire Detection	Take extra care when working around fire detection and Halon equipment to avoid accidental operation. The Installation force doing the removal is not responsible for removing Halon or fire alarm equipment.
Spot Cooling	Contact Support Assets before removing any spot cooling diffusers attached to CO equipment.
Ladder Track Stop Bolts	To ensure safety, check for stop bolts in ladder track sections still in use. If sections of track are removed during equipment removal process, stop bolts must be reinstalled in the remaining end sections.
Temporary Dust	If required, use temporary partitions to protect working equipment. The clear plastic dust barriers must be of fire-retardant and anti-static material.

6. Procedures for Removing Equipment

6.1 Marking Equipment Left in Service

Use the cable specification and the power and signal cable layout (PSL) drawing (or an equivalent) as a guide during the removal process. Mark all equipment remaining in service. Follow the instructions in the chart below.

If...	Then...
All bays and/or relay racks powered from a distribution fuse remain in service	Label the fuse and the bays or relay racks powered from the fuse.
All bays and/or relay racks powered from a distribution fuse will be removed	Remove the fuse.
Some bays and/or relay racks powered from a distribution fuse remain in service and some will be removed	Complete the following on the bays and/or relay racks removed from service. A. Remove the guttertrap from the power distribution run. B. Wrap the exposed conductors of the power distribution run with electrical tape to a thickness no less than the original insulation.

6.2 Powering Down Equipment

If any equipment remains in service (e.g., CXR, special service), complete the engineer's plans for recabling to an alternate source of power and supervision before disconnecting the primary source of power and supervision.

NOTE: Plan for depowering equipment bays, racks, and/or frames at least 48 hours before beginning the physical removal of the equipment.

Always determine the source of power to the equipment being removed. Is the source of power:

- A separate power plant.
- An alternate main power source needed for equipment in the removal area?
- A common main power source segregated by main distribution panel switches?

NOTE: Lockout and tagout the power source. (See GTE Telephone Operations Practice 009-026-300.)

Always use factory-provided power down procedures when available. If none are provided, remove the individual equipment fuses first, and then the larger size power plant fuses. After the fuses are removed, wait a minimum of 48 hours before removing any equipment to allow time for customer complaints if working equipment was inadvertently powered down.

Remove the individual equipment fuses and place them in a bag, and attach the bag to the equipment/fuse panel from which they were removed. At a later time when the equipment is removed, place the mounting hardware in this bag and ship it with the equipment.

6.3 In-Service Equipment Precautions

Use the following procedure when removing equipment in a building where equipment is in service.

Stage	Removing Equipment in a Building Where Equipment Is in Service
1	Issue a High Risk Activity Notice (per GTE Telephone Operations Practice 220-001-002). **NOTE: The notice must be received no later than 24 hours before work begins.**
2	Follow up the notice with a phone call to the Switching Service Supervisor.
3	Perform the removal work during a low traffic period determined by the Switching Service supervisor (normally from 11 p.m. to 5 a.m.). **NOTE: Before scheduling, discuss the work with the Switching Service Supervisor to establish a mutually-agreed-upon time.**

6.4 Removing Equipment Bays, Racks, Frames, and/or Units

Use the instructions in the following chart to remove equipment bays, racks, frames, and/or units.

NOTE: Always start removing equipment bays, racks, frames, and/or units at the verified end of the power feeder which feeds the equipment lineup.

CAUTION: Remove equipment fuses from the equipment for removal at least 24 hours before removing any cable and/or dismantiing equipment. Check with a voltmeter to verify no current drain is present before removing the fuses.

Step	Removing Equipment Bays, Racks, Frames, and/or Units
1	Check for signal and supervisory leads going to and leaving each frame. 1. Verify that the multiple is coming from the source and not from a unit that is dedicated to stay. 2. Rerun if necessary.
2	Check for signal leads at the distributing frame.
3	Make sure all jumpers have been removed.
4	Remove fuses at the equipment end, shelf fuse panel, or frame fuse panel of each bay, rack and/or frame.
5	Place fuses which have been removed in an envelope and pack with the fuse panel.
6	Remove the fuses from the aisle of the power distribution bay.
7	Remove the main distribution fuse.
8	Proceed through the equipment area frame by frame, ,bay by bay, and lineup by lineup until all equipment scheduled for removal has been depowered.
9	Properly tag and prepare all equipment scheduled for removal.

6.5 Removing Distributing Frames, Jumpers, and Blocks

Cut all jumpers at terminal block fanning strips.

On distributing frames, remove horizontal blocks at ten vertical junction points on the frame. Remove ten verticals at a time or as many as can be handled safely.

If removing multiple verticals is not feasible, remove all terminal blocks on the horizontal side of the frame, then dismantle one vertical at a time.

6.6 Removing Cable

Always use the following guidelines when removing cable.

- Never cut cables at random.
- In all cases, remove the cable by the cable-in-hand removal method described in Section 6.7.
- Never cut a power, ground, or switchboard cable when one end cannot be identified.
- Take voltage readings on all power cables to make sure the cables are dead before you disable them.
- Take resistance and impedance readings on all ground cables before disabling them.
- Inspect the ends of each power distribution cable. If the ends are on or near a slat of the cable raceway, or if the original tape appears to be loose or insufficient to provide adequate insulation, wrap each end with additional electrical tape, especially where the conductors might puncture the tape. Heat shrink the end wraps.

If the cable in the removal area must be removed from under newer cables in or on the cable rack or grid, use the following instructions.

Step	Removing Cable from Under Newer Cables in or on the Cable Rack or Grid
1	Start cutting the cable at the bay, rack, frame, and/or unit.
2	Cut the stitching and/or tie wraps (if applicable) with a knife or equivalent cutting tool.
3	Remove the cable using the cable-in-hand removal method described in Section 6.7. **CAUTION: Do not cut any cable on a vertical or horizontal rack passing through a floor or wall without verifying that the cable is the same cable at both sides of the cable hole breakout points. This is especially important in multifloor buildings.**

6.7 Cable-in-tiand Removal Method

When removing cable from a central office on a COE removal job, the installation crew should remove cable by the method described in the following chart.

Step	Using the Cable-in-Hand Removal Method
1	Cut the cable, starting at the verified-dead, depowered end.
2	Holding the cut end in one hand, physically trace back the cut end of the cable to a maximum of one arm span (or as far as you can reach with the other hand).
3	Cut the cable at the end of the arm span.
4	Continue this process (hold, trace, cut) until all the cable is removed.

6.8 Removing Alternating Current (AC) Equipment

When AC power-related materials are scheduled to be removed, coordinate the removal (described in the following chart) with a GTE-approved, qualified electrician.

NOTE: In some regions, COEI Installers are considered qualified.

Step	Removing AC Equipment
1	Verify that AC breakers that will be turned off do not affect any other working equipment not scheduled for removal.
2	Turn off AC breakers for all miscellaneous circuits. **NOTE: Lockout and tagout the power source. (Refer to GTE Telephone Operations Practice 009-026-300.)**
3	Cut one lead at a time.
4	Disconnect and remove AC power conduit, switches, outlet boxes, etc., as the equipment is removed.
5	Remove the AC lighting fixtures last.
6	Identify and remove AC ballasts as follows: 1. Identify and segregate all AC ballasts that contain PCB. (If the ballast is not labeled "Contains No PCB," then you must assume that it contains PCB.) 2. Dispose of all PCB ballasts as specified in GTE Telephone Operations Practice 122-205-003. 3. Contact the GTE Area Environmental Compliance Staff if you have any questions about removal, transport, or disposal of hazardous materials. **NOTE: Do not allow salvage carriers to pick up hazardous waste. After all hazardous waste has been identified, notify the Supply and Transportation Department and request pickup. Refer to Section 5.3 for a list of practices regarding hazardous material disposal procedures.**
7	Send removed AC equipment to the Supply and Transportation Department unless the requisition for removal states otherwise.

After completely removing the AC equipment, submit marked drawings showing the removals to the Support Assets Department, where the AC power distribution records must be updated.

Updating records assists in maintaining control of all main stock and house service board connections for future additions to the building when AC power is needed.

6.9 Final Power Down of Rectifiers and Batteries

Complete the following for a final power down of rectifiers and batteries.

NOTE: During the removal period, Switching Services personnel maintain the main power plant which feeds the COE removal site.

Step	Performing a Final Power Down on Rectifiers and Batteries
1	Shut off all but one rectifier.
2	Check the output ammeter to ensure only a minute reading is present. **NOTE: The minute output ammeter reading depends on the charge state of the batteries.**
3	Check the main discharge of the PDU ammeter.

If the Reading Is...	Then...
Zero	Go to Step 4.
Not zero	A,. Determine which distribution leg is causing the reading. B. Trace the current drain back to the equipment room. C. Depower (or power by an alternate source) all equipment and circuits that will not be removed.

4	Using an ampere probe, check for small amounts of current still present.

If the Reading Is...	Then...
Zero	Go to Step 5.
Not zero	A. Determine which distribution leg is causing the reading. B. Trace the current drain back to the equipment room. C. Depower (or power by an alternate source) all equipment and circuits that will not be removed.

5	When all readings are zero, remove all the main fuses.
6	Shut down the last rectifier. Disconnect AC power from the source, including the end cell rectifier.

(continued)

6.9 Final Power Down of Rectifiers and Batteries, continued

Step	Performing a Final Power Down on Rectifiers and Batteries
7	Disconnect the batteries from the bus bar and from each ceil.
8	Disconnect ringing generators, the coin battery unit, 130-volt power supplies, and any other power source.
9	Disconnect and discharge all capacitors before removing the bay battery filters (H-850076-A).
10	Remove the bay battery filters, batteries,. and the bus bar. CAUTION: **Remove battery cells when the switching equipment is taken out of service. An emergency spill kit for batteries (Item ID 881725) must be present when batteries are removed. If the battery cells must be left in place for short time with no load, they must be maintained the power source disconnected. See GTE Telephone Operations Practice 205-005-200.**
11	Cut all power cables at the main power board, battery distribution fuse board, and bay feeders.

6.10 Miscellaneous Guidelines

Note the following guidelines when removing equipment.

Item:	Guidelines:
Asbestos	Refer to GTE Telephone Operations Practice 117-200-006 when working on removal projects where asbestos is present.
Halon and Fire Detection Equipment	Take extra care when working around fire detection and Halon equipment to avoid accidental operation. The Installation force doing the COE removal is not responsible for removing Halon or fire alarm equipment.
Small PCB Capacitors	Refer to GTE Telephone Operations Practice 122-205-003 for removal of small capacitors containing PCB or COE removal projects.
Spot Cooling Diffusers,	Contact the Support Assets Department before removing any spot cooling diffusers attached to central off ice equipment.
Stop Bolts	to ensure safety, check for stop bolts in the ladder track sections still in use. If sections of track are removed during equipment removal, stop bolts must be reinstalled in the remaining end sections.
Temporary Dust Shields, Partitions, or Coverings	Make sure the materials used for temporary dust shields, partitions, or coverings on digital equipment are fire retardant and so marked for easy identification.

7. Packaging and Shipping

7.1 General Packaging Instructions

Salvage or reuse equipment must be securely packed/crated for transport to another location.

CAUTION: Check all junk/trash materials for hazardous waste. If you find hazardous waste, contact the GTE Area Environmental Compliance Staff and Equipment Resource Engineer.

Prepare an inventory list (specification and item, if possible) of all items. Place it on the inside and the outside of the packaging.

Pack all drawings, prints, and associated hardware documentation with the equipment to be removed and shipped.

NOTE: For additional information on equipment reuse provisioning guidelines, refer to GTE Telephone Operations Practice 007-780-001.

Use appropriate tags or labels to properly identify all equipment that will be returned to, or controlled by, the Supply and Transportation Department.

Mark the original frame designation:

- On all packaged frames and equipment.
- On all miscellaneous hardware.
- Inside and outside the packaging.

7.2 Shipping instructions

Request pickup and delivery service of equipment designated for reuse from:

- The COE Construction Operation Center.
  OR
- The Supply and Transportation Department.

NOTE: The Supply and Transportation Department is responsible for transportation when equipment is transferred to its warehouse. Notify the Supply and Transportation Department of pickup requirements as early as possible to reduce storage time in the switching facility.

7.3 Ordering Packaging Materials

COEMOD software is being developed (scheduled for 2nd Quarter 1995) that would match the equipment being removed to the correct packaging materials. The output from this software enhancement will be a list of required packing materials to ship the equipment to be reused.

NOTE: COEMOD will not order the boxes, but will provide a recommended packing materials list which will be sent with the specification. COEC will be responsible for ordering.

7.4 Handling Static-Sensitive Materials

When removing equipment, follow the same anti-static precautions used when installing equipment. Follow the guidelines provided in GTE Telephone Operations Practice.

Do not ship equipment without proper anti-static protection:

- PWCs must be packed in an anti-static bag. Do not wrap PWCs in paper.
- Do not ship multiple PWCs in the same box.

7.5 Damaged Containers

Equipment identified fo reuse should never be shipped in damaged containers; nor should Supply accept equipment in damaged containers. Any equipment being picked up by or delivered to Supply should be inspected for damage by both COEI and Supply before accepting the equipment. After the equipment is accepted by Supply, they are responsibility for any damaged container.

7.6 Packaging Precautions

In order for the shipper to receive feedback from the receiver, shipper information must be provided. The person shipping the equipment should insert a tag into the box identifying the shipper. A special effort is not required, just a slip of paper providing the following information:

- Name of the person that packaged the equipment.
- Work order number.
- A telephone number that can be called to obtain information or provide feedback. This could be the Operation Center, project supervisor, or the construction manager's number.

All of the above information should be completed and sufficient copies made to meet the requirements of the work order.

Special effort should be made to ensure that the materials being shipped in the box match the outside label/information.

7.7 Clean Equipment at the Removal End

All equipment that has been identified for reuse should be cleaned at the removal end. All installation cabling and wiring must be removed from the equipment (e.g., switchboard, power cabling/wiring and jumper wiring)_ Strapping should be removed if it will have no value to the receiving end. All vacant pins should be clean of solder.

NOTE: Charge the labor time required for cleaning to the appropriate work order "X" account.

7.8 When Should the Equipment Be Removed

Remove identified reuse equipment and ship it as soon as practical after equipment is removed from service. This will reduce problems of:

- Not having required equipment on the receiving project in the required time frames.
- Lost equipment.
- "Cannibalized" equipment.

It is only necessary to remove equipment to be shipped. The equipment not identified to be reused or sold could be scheduled for removal at a later date.

7.9 Removal Specifications

Engineering will provide removal specifications/ECLIPS (COMER) runs similar to the original specification, listing all equipment that is being shipped. The shipper will mark this specification with the number of the box in which the equipment is being shipped. A summary should be prepared listing all the boxes shipped. These marked specifications will serve as:

- Packing lists for the receiver on a Transfer Report (Form 90001760, available through normal supply channels).
- An inventory aid for Supply.

7.10 Shipping Specifications (Site-to-Site)

The ERM removal specification, along with the miscellaneous specification, should be sent to the receiving site (site-to-site transfer) separate from the equipment (U.S. or company mail). The shipper must retain a copy of these specifications.

7.11 Assigning Box Numbers

The first character of the container number should identify what is in the container.

EXAMPLES: *Cables = C001*
Printed Wiring Cards = P001
Frame (Equipped with Equipment) = F001
iron Work = I001
Miscellaneous Hardware = H001
Relay Rack = R001
Miscellaneous Equipment = MOO7
Drawings/Prints = D001

These are examples only. The shipper should establish this type of coding. A cross reference of the selected shipper coding should be provided on the first page of the miscellaneous specification.

A master listing of all containers shipped should also be provided on the first page of the miscellaneous specification. An example of this would be:

The following is an inventory of ail containers shipped:

Cables = C001 to co49
Printed Wiring Cards = P001 to P235
Frame (Equipped with Equipment) = F001 to F028
Iron Work = I001 to 1022
Miscellaneous Hardware = H001 to H004
Relay Rack = R001 to R019
Miscellaneous Equipment = MOO7 to MOO8
Drawings/Prints = D001 to D003