GUAM POWER AUTHORITY *Standard Operating Procedure*	* No. SOP-061 *	Issued: 03/15/93
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PREFACE

The rendering of accurate bills to our customers depends on the correct reading of meters and the prompt reporting of conditions observed by Meter Readers. This **manual** was prepared to acquaint you with procedures to be followed in reading meters, recording the readings, and reporting conditions observed.

Meter Readers have an ideal opportunity to create good impressions of the Authority. You are the only Authority representatives who have personal contacts with great majority of our customers. Although most of these contacts are very brief, as in the case of an outdoor meter reading, customers are aware of your presence in many instances and naturally will react critically to any shortcomings on your part. Therefore, strive to perform your duties in an efficient and courteous manner with due consideration for customer's property.

This **manual** has been prepared to be used primarily as reference material by Meter Readers and represents the standard practice of the Customer Services Department.

I. CUSTOMER RELATIONS / JOB DUTIES

The Meter Reader is the most important person in the billing cycle. If the reading you turn in is incorrect, the bill is incorrect. If you do not read a customer's meter, he/she receives an estimated bill.

1.0 YOU ARE A GPA EMPLOYEE

You are employed by GPA to be a Meter Reader. Under the Federal Fair Labor Standards Act of 1936, as amended, GPA cannot suffer or permit any other person to perform your job for you. Anyone else (including your spouse, your children, a friend or another relative, etc.) who reads even one meter for you, is under the law, considered an employee and must be paid at the minimum wage for each day that they work. GPA does not permit anyone else to do your job for you. Should we discover that others are substituting for you in doing your job, we would have no choice but to terminate your employment.

2.0 AUTHORITY IDENTIFICATION

Each Meter Reader is furnished a GPA Employee's Identification Card. This ID card must be carried with you at all times while you are reading meters. You must identify yourself to any customer upon request by presenting your ID card. If your employment should terminate for any reason, you must surrender your ID card to your immediate supervisor.

3.0 PERSONAL APPEARANCE

It is expected that Meter Readers are to cooperate with Management's objective of keeping our customer's respect and good will by maintaining a neat, presentable appearance.

1. Uniforms are worn at all times while on the job.

2. Hair is kept groomed and shoes reasonable, cleaned and shined.

4.0 INSTRUCTION OF METER READERS

4.1 At the start of employment, a new Meter Reader attends a training course for about three weeks. This includes class work, orientation and actual field meter reading accompanied by an experienced Meter Reader and/or team leader.

4.2 Following this, an electronic meter reading devise is issued and the new Reader proceeds to the field. For a time, the new Meter Reader's reading route may be re-read the following day by a regular Meter Reader. Errors and omissions are reviewed in the office, with the new Reader, by the team leader and or supervisor to clear up difficulties. This procedure of checking and instructing the new Meter Reader is continued until he or she is deemed capable of performing the work, or fails to meet the standards required of a Meter Reader.

4.3 It is practiced whenever circumstances permit to have each Meter Reader attend refresher classes in meter reading.

5.0 RESPONSIBILITIES OF METER READERS

The Meter Readers are responsible for the following:

1. Accurately reporting meter readings.

2. While in the field, carefully check each blank reading in the meter reading book for missed readings.

3. Checking all meters for proper seals with GPA ID and meter straps if they are in good condition.

4. Reporting all seals tampered with or broken meter straps.

5. Checking and reporting malfunction meters, meter tampering and general condition of meters.

6. The safety and proper care of the electronic meter reading devise to prevent damage or loss.

7. The proper care, to prevent loss, of keys entrusted of gaining access to meters; and upon leaving, that the premises be left secured, as found.

8. Preparing file maintenance forms for change in meter sequence meter location, comments and premises conditions.

9. Maintaining the print out sheets.

10. Submitting discrepancies for proper action.

6.0 PERSONAL CONDUCT WHILE ON CUSTOMER PREMISES

Always remember that you are a business representative of the Authority and a guest on the customer's premises. Treat him/her and his/her property with respect, as you would want to be treated.

7.0 HANDLING CUSTOMER COMPLAINTS AND INQUIRIES

Any complaint or inquiry from the customer, prepare a written report (FIR); and provide the customer a copy; inform the customer that you will pass this on to the proper personnel at GPA who will provide answers to their complaint or inquiry. Tell the customer you do not have the answer and that you will see that his/her complaint or request is taken care of.

8.0 GIVING UNAUTHORIZED INFORMATION

Employees are prohibited from giving, directly or indirectly, information respecting the names or addresses of applicants or applications for service, or the transfers or discontinuances of service to any person or organization. Violation of this constitutes grounds for disciplinary action of the employee or employees involved.

9.0 PROHIBITION OF COMPENSATION TO AUTHORITY EMPLOYEES

Employees of the Authority are strictly forbidden to demand or accept personal compensation for services rendered to a customer.

10.0 REPORTING SICKNESS, ABSENCE OR TARDINESS

10.1 If unable to report for duty, notify our immediate supervisor or team leader before 7:00 a.m. to obtain a replacement.

10.2 Notify your immediate supervisor or team leader as soon as possible if it is necessary to leave your assigned area before the end of the workday because of illness or for any other reason.

10.3 Notify your immediate supervisor as soon as possible if you cannot report to work due to sickness. Advising your superiors of your return date to work will allow ample time to re-schedule the days' workload with the present crew.

11.0 REPORTING TIME AND MILEAGE

Time worked and mileage driven is reported in the manner prescribed on the forms provided under the direction of your immediate supervisor.

II. SAFE WORK PRACTICES

The Guam Power Authority is vitally interested in your safety, health and well-being. It takes great interest and pride in preventing accidents on and off the job. You and the Authority have the responsibility of preventing accidents.

1.0 YOUR RESPONSIBILITIES

1.1 Make full use of all safety rules, practices and equipment in order to protect yourself and fellow employees.

1.2 Report any condition that might result in injury or property damage.

1.3 Correct any hazardous or unsafe condition within your capabilities to remedy.

1.4 Report all injuries or accidents as soon as possible.

1.5 Secure immediate first-aid or medical attention for all injuries, no matter how small, which will reduce the possibility of infection or complication.

2.0 SPECIAL INSTRUCTIONS FOR FELLOW METER READERS

It is also your responsibility to initiate special instructions and update existing instructions whenever warranted. The Meter Reader reading the route next time has no idea what hazards you encountered unless you let him/her know by way of special instructions.

3.0 DEALING WITH CUSTOMERS WHO APPEAR INDISCRETE WITH METER READERS

Remember, you are a working business representative of the Authority when you are on the premises of the customer. There may be those customers who will, from time to time, tend to engage in conversation or activities not generally accepted to be within the normal range of business conduct. Such conversation or activities are to be avoided without exception.

4.0 CUSTOMER HARASSMENT

4.1 Residential Property

4.1.1 Signs posted on a customer's property are for your guidance and protection. Always observe and respect them.

4.1.2 Always make it a practice to leave gates as you found them. A gate closed may keep an animal or small child from running away. It can also keep a neighbor child out of a yard where he might damage property or receive injury.

4.1.3 Before entering each yard, it is important that you make a visual check noting all obstacles and unusual conditions. Be careful of nails, splinters and wires when reaching over gates to unlatch them.

4.2 Commercial Property

While you are on the premises, observe and comply with all safety rules. Never attempt to read a meter that requires you to crawl, climb or work close to a machine with moving belts, gears or other moving parts. Ask the operator or your guide to turn off the machine for a moment so you can obtain the reading safely and accurately. Be on the alert for slippery floors due to oil or water. Watch out for the possibility of falling objects. Hard hats must be worn whenever reading meters within a construction compound and where signs indicate such requirement.

4.3 Handling Damage to Customer Property

When property has been damaged, or you have been accused of damaging customer property, inform the customer that you have no authority whatsoever to make settlement with him/her at that time and that the matter must be referred to your immediate supervisor and/or the officials at the GPA main office. Write down the nature of the complaint, give a copy (be sure that you do not place or accept blame for the damage in writing down the complaint), and turn in the written complaint to your immediate supervisor at the end of the workday.

5.0 NO RIDERS PERMITTED

The Authority cannot permit you to take any riders with you as you carry out your job as a Meter Reader. This includes picking up hitchhikers, even though they be known to you. It also includes members of your family or any personal friends of yours. Should you be on the job reading meters for the Authority, with a passenger in your vehicle, and have an accident, it is impossible that the Authority might be liable and could be sued for injuries by the passenger riding in your vehicle. No riders are permitted in the field other than Authority employees.

6.0 PROTECTION FROM DOGS

6.1 Dog Sticks

The idea behind the dog stick is the fact that animals find it very difficult to focus their attention on more than one object at a time. By sticking the stick in the dog's face, we are simply giving him something to concentrate on besides our limbs. And, or course, there is the advantage of having the distance of three feet between the dog's teeth and us.

6.2 Dazer

The Dazer is a hand held ultrasonic dog deterrent which is useful to virtually anyone who is intimidated by dogs. The Dazer combines the latest ultrasonic technology with simplicity of use to provide the user a humane alternative to avoid getting bitten by a dog. The Dazer emits a high frequency sound that is heard by dogs, but not by people. The sound is detected by the dog at a distance of 15 feet. The most effective range is in the 5 to 10 foot range. The normal reaction is for the dog to stop and in many cases to regress his position.

6.2 (continued)

The user simply points the Dazer at the approaching unfriendly dog an depresses the built in button for 2 to 3 seconds. The sound does not physically harm the dog, but it is very discomforting and the closer the dog is to the Dazer, the more intense the sound becomes. The Dazer offers the user an opportunity to establish a safe zone between them and the dog. **(See Attachment A)**

6.3 Umbrella (Dog Deterrent)

6.3.1 Umbrella has the greatest impact on a charging dog. It is popped open when the dog is 10-12 feet away from you. Usage of the umbrella is totally humane and very effective.

1. Try to face the dog. Hold the umbrella directly towards the dog's face. When the dog gets within 12 feet on you, pop the umbrella open.

2. Always keep the umbrella pointed at the dog. If necessary, pivot with your feet if the dog attempts to circle you.

   Very few dogs will bite the umbrella, but if one should, don't let go of the umbrella. Hang on to the umbrella and try to work your way to safety.

6.3.2 You are required to keep either the dog stick, the Dazer or the umbrella with you at all times while you are reading meters.

6.3.3 The following suggestions must be followed for each reading locations:

1. Look and be prepared to find a dog at each location. check for items that may indicate a dog lives there (chains, food bowls, dog house, fenced-in yard, etc.).

2. Try to avoid allowing a dog an opportunity to surprise you. It is just as important for you to surprise the dog.

3. Always let a dog (and the customer) know you are approaching. This is one job where it pays to be noisy. Announce yourself loud and clear at each reading location.

6.3.3 (continued)

4. Growls and barks are a challenge. Accept them as such and try not to show any alarm.

5. Avoid making any sudden or unexpected moves because they are likely to be misunderstood by the dog. Bending over and reaching toward the dog could result in an attack launched towards your face, hand or arm.

6. Make all movements natural. Do nothing that might frighten the dog. Try to give the impression that your visit is perfectly proper.

7. Speak to strange dogs in a confident, friendly tone - not sharp or scoldingly.

8. A dog is afraid of being cornered and care should be exercised to avoid cutting off his avenue of escape.

9. A dog that is tied up is more nervous and likely to bite than one that is free.

10. Be extremely cautious of the dog whose owner is present. Sometimes dog owners who are sure they know their animals are shocked when the dog becomes aggressive. If you are in doubt, do not hesitate to ask the owner to secure the dog.

11. Many dogs are particularly dangerous when children are in the yard. They attack when they think you represent danger to the children.

12. In the event you are attacked by a dog, defend yourself and try to reach a safe place.

13. If you receive a dog bite, report the injury immediately and secure proper medical treatment.

14. Be sure the gate is secured when you leave. If the dog gets out, you are responsible.

6.3.3 (continued)

15. There are three things you are not to do:

a. Never attempt to pet a dog.
b. Never turn your back on a dog.
c. Don't believe a customer that says, "My dog won't bite". All dogs can bite when the circumstances are right.

6.4 Dog Bites

6.4.1 The vast majority to injuries to Meter Readers are the result of dog bites.

6.4.2 Exercise every precaution to avoid being bitten, where a dog is believed to be on the premises. If bitten by a dog, inform your immediate supervisor, irrespective of the degree of severity.

6.4.3 If severely bitten, you may call the nearest receiving hospital for an ambulance and treatment at the hospital. If it does not warrant hospital treatment but is serious enough to require immediate attention, you may prevail yourself to the services of any licensed physician or surgeon.

6.4.4 For minor bites, you wait until you reach your office and then be sent to Guam Memorial Hospital on your insurance's medical clinic.

6.4.5 Obtain as good as a description of the dog as possible. Attempt to obtain the owner's name, address and telephone number. Give your immediate supervisor the information you have so that the dog may be quarantined for determination of rabies in accordance with the Public Health and Social Services regulations.

7.0 FENCES

7.1 Access to our meters is a growing problem due to two main reasons:

a. The growing need for security.
b. Both husband and wife work and no one is home.

7.2 We are constantly striving to make arrangements with our customers to overcome these problems, however, we know that we may never be able to solve them all.

7.3 Keeping in mind the need to further reduce our operation costs, the Meter Reader has to, again, use good judgment in attempting to read these meters.

7.4 Although we discourage Meter Readers going over a fence, there are some cases when it is permissible, keeping in mind the following guidelines:

7.4.1 Always test the fence first to determine if it is solid and sturdy, i.e., no loose blocks, no barbs sticking up on top, etc.

7.4.2 Never go over a fence unless you are able to see where you will land on the other side. This means that the area has to be free of debris, flowers, dogs, high weeds, etc.

7.4.3 Never try to go over a vegetable stake, bamboo, or any fence made of flimsy material nor should you attempt to scale high fences.

7.5 Even though you are permitted to go over some fences, the main things to keep in mind are:

1. We don't want you to get hurt.

2. Never go over a fence unless you are able to see where you will land on the other side. This means that the area has to be free of debris, flowers, dogs, high weeds, etc.

3. Never go over a fence if the instructions tell you not too.

7.6 In keeping with good customer relations, when a customer indicates that he/she prefers for us not to go over the fence, code it on the special instructions so the next Meter Reader knows.

8.0 CLOTHING

The uniforms issued identify you as a representative of the Guam Power Authority. Proper clothing is important for the field person as it is for the person working in the office. You must be clean and neat in order to present a good appearance.

9.0 WORKING ALONE

Meter Readers frequently need to enter isolated locations or areas seldom used where assistance, in the event of serious injury, might be delayed for a long period of time. An injury resulting in unconsciousness or inability to summon help might go unnoticed for several hours. It is most important, therefore, that if you enter such areas, whether it be a remote farming area or a building basement, you do so carefully and safely. A flashlight should be used to light your way and locate building switches. Never use matches or open flame. Do not try to find your way without adequate lighting. A fall could result in serious and permanent injury.

10.0 VEHICLE SAFETY

10.1 Seat belts are installed in all Authority vehicles and are to be worn at all times.

10.2 Other standard items for your vehicle are:

1. First Aid Kit
2. Accident Kit (containing forms to be used in case of accident)
3. Fire Extinguisher

10.3 Your vehicle is always kept clean. Your equipment and tools are neatly arranged and any trash is to be removed daily. For your safety, as well as others, your vehicle is always kept in top mechanical condition. It is your responsibility to report promptly any unsafe or faulty conditions to the Transportation Department or Service Center Garage.

10.4 When your vehicle is to be left unattended, always adhere to the following:

1. Set the emergency brake.
2. Place the gear selector in "Park".
3. Never leave the engine running while unattended.
4. Remove the keys from the ignition.

10.4 (continued)

5. Lock it (even if you are only going to be gone a few minutes).

6. If you are parked on an incline, turn the front wheels into the curb.

10.5 Always obey all traffic laws and posted traffic signs on public and private property. (The Guam Power Authority does not pay traffic fines incurred by its employees.)

11.0 REPORTING ACCIDENTS (INCLUDING LIABILITY ACCIDENTS)

11.1 A Meter Reader's principal exposure to hazards on the job are traffic (vehicle) accidents and bites. Should you have an accident related to your job, you must report it immediately to your supervisor.

11.2 The Authority is held liable for any damages to other person's property or injury to other people which are caused by your negligence. **The accident is your responsibility**. Report it to your immediate supervisor. Your supervisor, in turn, obtains all the necessary information from you and fills out the accident reports required by the Authority's Safety Officer. This includes accidents involving your vehicle (alone or in a collision with another car), or any damage done by your vehicle to a customer's property, or any damage of any kind that a customer claims that you have done to his/her property by virtue of being on or crossing over his/her land.

11.3 It cannot be emphasized strongly enough: report all accidents of any kind to either your supervisor or the Customer Services Manager. The Authority insures itself against liability caused by the action of any of its employees. Accidents do happen. The fact that you may have an accident or a customer may file a claim against the Authority alleging damage to property will not threaten your job security. Report all accidents.

12.0 REPORTING POTENTIAL HAZARDS ON OVERHEAD POWER LINES

Any potential problem observed while on your mete reading route is reported on the forms provided. Conditions which are reported are danger trees, trees growing into lines, low wires, loose guy wires, leaning poles, stopped meters, meters with water damage, broken insulators or any other situation that causes an outage or presents a hazard to our customers or the general public. This information is reported to your immediate supervisor at the end of the workday.

13.0 SUPERVISOR'S OCCUPATIONAL INJURY/ILLNESS REPORT

Supervisor's occupational Injury/Illness Report is used to report all accidents, injuries and illness. Complete the report as soon as possible after the accident, injury or illness. Particular emphasis is placed on thoroughness.

14.0 AUTOMOBILE ACCIDENT REPORT

Automobile Accident Report covers damage by automobile collision. In case of an accident, comment as little as possible and **MAKE NO JUDGMENT**. Give your name, address, employer and operator's license number. If other vehicles are involved, be certain to obtain all information requested in Section 11.0, Damage to Property of Others (Not Your Car), and notify your supervisor immediately. An Accident Kit, which contains forms to be used in case of accident is in the glove compartment of every GPA vehicle.

15.0 MEDICAL FEE EXEMPTION AND MEDICAL STATUS AND RELEASE FORMS

15.1 Medical Fee Exemption form is used when requiring treatment for an occupational injury/illness.

15.2 The Medical Status and Release Form must be submitted by the attending physician certifying the work status of the employee. The employee cannot return to work without this form.

16.0 SAFE SUGGESTIONS

16.1 Never carry pencils or pens in your breast pocket with unprotected points up. In bending over, you may jab your face or eye.

16.2 Look closely before you get your face near shrubs blocking the view of a meter. It is easy to jab a twig in your face.

16.3 If you must get your head under an overhanging projection, remember to back out instead of rising up.

16.4 Note all potential hazards when approaching a meter so that you can avoid them when you leave.

16.5 Always look where you are going. Watch out for low clothes lines, and overhead pipes. Do not walk around corners without looking up to see where you are going.

16.6 Watch where you put your feet. If you cannot see the ground because of high weeds or other obstructions, do not take a chance. Stepping on an object or in a depression can strain or break an ankle.

16.7 Be careful of shortcuts across corners, against traffic lights, etc.

16.8 Watch for holes in floors, broken or decayed steps and railing.

16.9 Don't trust dogs.

16.10 Record on electronic meter reading devise where hazardous conditions exist and report those conditions immediately.

16.11 Tennis shoes are prohibited due to their lack of protection against nails and sharp obstacles.

III. METER READING SYSTEM

The purpose of the meter reading system is to obtain readings for the calculation of customer's bills and ultimately, revenue for continuing Authority business.

Meter readings are recorded on the electronic meter reading devise.

Meter Readers are assigned routes to read each day. In the field, Meter Reader enter the readings on the electronic meter reading devise.

1.0 **ELECTRONIC METER READING DEVISE**

1.1 Identifies the route and is used to record certain information pertaining to a route read in a given day.

a. Meter Reader's Name

b. Date Read

c. Vehicle Number

d. Beginning and Ending Odometer Mileage

(See Attachment A)

2.0 **DEVISE**

2.1 Used to record meter readings. The devise provides the Meter Reader with customer account information and is used to record and report more than just the meter reading.

2.2 The following information is preprinted:

a. Route

b. Reading or Report Date

c. Sequence Number (SEQ)

d. Meter Number

e. Current Reading (CURR RDG)

f. Demand Reading (DEMND RDG)

g. Account Number (ACCOUNT NO)

h. Customer's Name (NAME)

2.2 (continued)

i. Rate Schedule (RSCH)

j. Meter Location (MTR-LOC)

k. Special Instruction (SP-INS)

2.3 The print out of the meter route shows a recap of total number of active meters or customers, total number of active non-metered customers (street lights) and total active numbers (metered and non-metered).

3.0 METER READINGS FIELD INVESTIGATION (Attachment B)

This form is used to report unusual field conditions and additional information about an account that cannot be reported on the electronic meter reading devise.

Establishing or Changing Special Instruction/MeterLocation Codes/TroubleCodes.

Add, delete or change all meter location/special instruction on the Reading Devise as you read each day. The proper codes to use are listed on pages 30 & 31 of 41. (Attachment C)

4.0 SEQUENCE NUMBER CHANGES

4.1 Changing the sequence number controls the reading sequence number shown in the meter book. A five-digit sequence number is assigned to each customer to identify the optimal sequence for reading meters within each route.

4.2 The sequence number printed on the print out is referred to as the "preprinted" sequence number.

4.2.1 When an account needs to be sequenced, determine its new order within the route (example: between 1600 and 1610) and mark the new sequence number (1605) on the electronic meter reading devise.

4.2.2 If three accounts should be read between existing sequence numbers (1610 and 1620), enter 1611, 1612 and 1613 on the electronic meter reading devise for those three accounts. **NOTE:** Up to nine accounts may be placed between two existing accounts with preprinted sequence numbers.

4.2.3 If ten new accounts are to be placed between existing sequence numbers (10000 and 10010), assign sequence numbers 10001 through 10010 to the next accounts and change existing sequence number 10010 to 10011.

4.3 All print out with sequence number changes will automatically be updated and renumbered in increments of ten by the computer.

4.4 When numerous accounts are being resequenced, such a new route, will be resequenced to the desired order. This eliminates the likelihood of assigning the same sequence number to two or more accounts.

4.5 When a route is split between two or more Meter Readers, no new sequence numbers should be assigned between split portions of the route. This restriction avoids the confusion which could exist if both Meter Readers were to assign sequence numbers in the same sequence range and inadvertently exceed the limit of nine sequence numbers within that range.

5.0 METER CHANGES (CODE) TROUBLE 98

5.1 Occasionally, the meter number appearing on the electronic meter reading devise will differ from the meter number on the premises.

5.2 First, verify that you are at the correct location; the, check for correct service address on the electronic meter reading devise if available.

5.3 If the meter has been changed, enter the new meter number on the electronic meter reading devise/T98. This condition is to be recorded on the Meter Readers Field Investigation form and turned in to the Meter Reader Supervisor at the end of the workday. The supervisor gathers all such reports and forwards them to the Business Office for immediate follow-up and/or corrective action.

6.0 DEMAND AND KILOWATT-HOUR READINGS

Refer to page 25 of 41, Indicating Demand Meters, for specific instructions.

7.0 UNABLE TO OBTAIN READING

If the Meter Reader is unable to obtain a reading for any reason, a notation must be made on the electronic meter reading devise for specified skip codes. An estimated reading is plugged into the account and is shown on the Reading Exception Report. The investigation crew is tasked to attempt to read the meter the next day. If the crew still cannot pick up the reading, the customer will receive an estimated consumption on his/her next bill. (See page 37 of 41 for procedure).

8.0 POSTCARD DOOR HANGER

8.1 The postcard door hanger is a self-addressed, postcard that is left on a customer's premises by the Meter Reader when, for various reasons, a reading cannot be obtained on a power meter.

8.2 The Meter Reader leaves the card when it is not possible to read a power meter because of a locked gate, dangerous dog, or a meter obstruction.

8.3 Meter Readers enters the following information in the upper portion of the card.

1. Check appropriate reason why meter was not read.
2. Fill complete account number and customer name.
3. Fill in the complete meter number.
4. Enter date and time that card was left on premises.
5. Enter Meter Reader's initials and employees I.D. number.
6. Using the special message feature, key in "Door Hanger".

8.4 The postcard door hanger must be placed on the front door or any suitable location where the customer can see it easily. Do not place it in a mailbox.

IV. FIELD PROCEDURES

1.0 READING MUST ACTUALLY BE SEEN

The Meter Reader must actually see the meter reading before entering it on the electronic meter reading devise.

2.0 READING NOT ACTUALLY SEEN

A Meter Reader who enters a meter reading which is not actually seen constitutes falsification of an important GPA document and is subject to disciplinary action, possibly dismissal.

3.0 HOW TO READ METERS

3.1 The register dials read in kilowatt hours. Starting at the dial to the far right, a unit is equal to 1 kilowatt hour. The next dial unit to the left is 10 kilowatt hours, the third is 100 and the fourth, 1000 and the fifth (5-dial meter), 10,000.

3.2 Dial One and Dial Three move clockwise (for 5-dial meter - Dial Five also moves clockwise). Dial Two and Dial Four move counter-clockwise. To get reading, read Dial One and note the number that the pointer is on....or....if the pointer is between two numbers....note the number that the pointer has just passed. Read the dials from right to left, dial 1-2-3-4 or 5, and note the reading of each dial in the same order.

Complete reading in the above example is: 6064.

3.3 Or, when the pointer is between numbers, the lowest number is the correct reading. However, as the single unit dial begins to show a reading, the next pointer on the dial to the left will also start to move, but it will move at only one-tenth the speed of the first. When the first pointer nears a complete revolution, the second pointer will be very close to the figure 1, but it will not ba a 1 unit the first pointer reaches zero. This same relationship exists between any two adjacent dials on the register. For this reason, you must always refer to the immediate dial at the right to determine the correct reading for any dial other than the first (dial at far right).

3.4 When the pointer on any dial seems to be directly on a number....look at the dial that is immediately to the right of the dial you are reading. If the pointer on the dial to the right has not passed 0, note the next lowest number on the dial whose pointer seems to be directly on the number.

The complete reading for this example is: 5964.

3.5 The five dial meter is read in the same manner as the four-dial meter. Dial Five must be noted even if it is zero.

3.6 On infrequent occasions you may find a pointer out of adjustment. You must be alert to detect this condition and it should be reported on the Meter Readers' Field Investigation or Customer Bill.

3.7 Inquiry or Complaint/Request Form. The example below shows a five-dial meter with the fifth dial pointer out of adjustment. The pointer should not reach four until the pointer of dial four reaches 0.

The correct meter reading for this example is: 36064.

4.0 CANNOT LOCATE

Any meter which the Meter Reader cannot locate will be noted on the electronic meter reading devise and a Meter Readers' Field Investigation or Customer Bill Inquiry or Complaint/Request Form prepared for follow-up.

5.0 INACCESSIBLE OR LOCKED METERS

5.1 When the Meter Reader, after reasonable effort to gain entrance to read a meter, is unable to do so, notes on the electronic meter reading devise - gate locked, mete inside, or inaccessible. Locked or inaccessible structures are never entered or screen doors or gates unlatched without prior consent of the customer.

5.2 The Meter Reader attempts to determine from observation or from neighbors, if the cause of this "lock or inaccessible" is that the customer is away for the day, away on vacation, etc. The Meter Reader notes on the electronic meter reading devise such information to aid the investigation crews.

6.0 METER REVERSING

6.1 Normal rotation of discs on single disc electric meters is from left to right.

6.2 A disc rotating right to left is reversing. Reversing registration is usually indicated by very low consumption or a reading actually lower than the previous reading. In case of new installations, the meter has been set reading (0) 0000, and the reading is usually in the nine or ninety thousands if the meter has been reversing. This information is written on the electronic meter reading devise for the particular meter.

7.0 NON-REGISTERING

If the disc does not rotate when the current is passing through the meter, the meter is not registering. The reading is entered on the electronic meter reading devise and the proper trouble code is keyed in.

8.0 INSPECT SERVICE WIRES

When the hot lines of service wires are bare, too low, or if service drop insulators on the house are loose, the Meter Reader notes this on the electronic meter reading devise.

9.0 BROKEN GLASS

Where the dial glass or plastic cover has a hole, broken or cracked, there is a possibility of particles obstructing the rotation of the disc, thus retarding or stopping the meter. The Meter Reader notes on the electronic meter reading devise using the appropriate trouble code.

10.0 NOISY METER

Any meter found humming shall be recorded on the electronic meter reading devise. Humming meter may or may not be registering correctly.

11.0 BROKEN SEAL

A broken seal indicates possible tampering and is noted "Seal Cut" on the electronic meter reading devise using the appropriate trouble code.

12.0 **CLEAN GLASS**

The Meter Reader cleans a dirty glass whenever possible. When the Meter Reader is unable to clean the glass, "**Clean Glass**" is noted on the electronic meter reading devise.

13.0 **RESET METER**

A meter may become loose and tilt forward or sideways. When this has occurred, note on the electronic meter reading devise "Reset Meter".

14.0 **DISC CREEP**

This designation is used where the disc slowly rotates when apparently no electricity is being used. This usually occurs when there is actually a very slight load, such as an electric clock or a bell transformer, etc. When the customer believes the disc to be creeping due to faulty meter, accept the complaint, and mark on the electronic meter reading devise "Disc Creeps".

15.0 **METER CASE HOT**

Where a shock is felt on touching the meter socket, mark on the electronic meter reading devise "Meter Hot".

16.0 **FIRE**

Cases shall be reported immediately.

V. ELECTRICAL TERMS YOU SHOULD BE FAMILIAR WITH

1.0 **WATTS - KILOWATTS - KILOWATT-HOUR**

1.1 Meters installed by the Authority on customer's premises are there to measure the electric energy supplied. These measurements are converted into terms of money upon which our billings are based.

Watt ..... A small unit of electric power.
Watt Hour... A watt used for one hour.

1.2 Basically, electric power is measured by the watt, a very small unit of electricity. Inasmuch as time is also an important factor in the use of power, the watt hour, which is watts multiplied by hours, is the unit in general use. To illustrate: A 100-watt light used for one hour would consume 100 watt hours of electric energy.

Kilowatt ..... 1000 watts of power
Kilowatt-Hour.... 1000 watt hours

1.3 In the average residence, many thousand watt hours are used monthly. The handling of such large figures is facilitated by using the kilowatt hour, which is one thousand watt hours, as the basic unit of measurement. For this reason and other mechanical considerations, meters register electric consumption in terms of kilowatt hours. Example: An electrical appliance that consumes 1000 watts in one hour is thus using one kilowatt-hour of electricity.

VI. METERS AND RELATED TECHNICAL DATA

1.0 There are three basic types of meters; the Kilowatt-Hour Meter, Indicating Demand Meter and Recording Meter.

1.1 The **Kilowatt-Hour Meter** is an instrument for measuring energy in kilowatt hours and is customarily installed on residential account; however, there are occasions when you will see it on small commercial or government buildings. It may have four dials or it may have five dials.

1.2 **Demand Meters** are normally installed on larger commercial or government accounts. They not only record the kilowatt-hour consumption, but it also indicated the maximum amount of electrical load that a customer used during a time interval.

1.3 The method of recording the maximum demand depends upon the type of meter installed to serve a particular customer's load:

1.3.1 **Indicating Demand** - has a pointer extending from center to scale located on the perimeter of meter; or dials at bottom of meter.

1.3.2 **Recording Demand** - Is equipped with a tape or chart with kilowatt demand being recorded at 15 or 30 minute intervals throughout the billing period.

2.0 KILOWATT-HOUR METER

A Kilowatt-Hour Meter is an instrument for measuring energy. As energy is the product of power and time, the Kilowatt-Hour Meter must take into consideration both of these factors.

3.0 INDICATING DEMAND METERS

3.1 There are two basic types of Demand Meters; the Indicating Demand, and the Recording Demand Meters. The Indicating Demand Meters are regular Kilowatt-Hour Meters equipped with a special demand register (scale of dials depending upon type of meter installed) and record the maximum kilowatts of demand.

3.2 When the demand reading is obtained at the end of a billing period, it is necessary to return the demand pointer or dials to the zero position. (This applies to all demand meters). The procedure requires the reader to push the indicator back to (0) zero using the resetter then returning the resetter to its proper position.

4.0 READING DEMAND METERS

4.1 There are three standard Demand Meters installed on GPA lines: Westinghouse, General Electric and Sangamo types. Upon the various demand meters, there may be found several demand scales, such as low of 1.5 to a high of 144 kilowatt demand scale. See Attachment D.

4.2 Figure 1 shows a typical 2 kilowatt demand scale. It should be noted that all divisions of this scale correspond to 0.01 kilowatts of demand and that the maximum range of the scale is 2 kilowatts.

In Figure 1, a demand reading has been outlined which should enable you to correctly determine the reading on any 2 kilowatt demand scale. The reading is 0.82. The pointer should always be read as indicating the figure which it has last passed and not the one to which the pointer is nearest.

4.3 Figure 2 shows a demand scale similar to figure 1 with the exception that it is a 4 kilowatt scale and all the divisions of the scale correspond to 0.02 kilowatts of demand and the maximum range of the scale is 4 kilowatts.

4.4 The same demand pointer position illustrated on Figure 1 is shown on Figure 2. However, on the 4 kilowatt scale the reading is 1.66.

4.5 These illustrations should point out the importance of determining the type demand scale you are reading before recording the demand reading. Also, remember that the present demand reading should always be compared with the previous demand reading. If the present reading is usually high or low, the reading and the meter number should be substantiated before resetting and the condition (high or low) should be reported on the Service Investigation (S.I.) or Customer Bill Inquiry or Complaint/Request Form. If the demand pointer is found at full scale and the demand seal is missing, reset demand reading to zero and report the missing seal on either form.

5.0 RESETTING DEMAND METER - DEMAND SCALE

When the demand reading is obtained at the end of a billing period, it is necessary to return the demand pointer to the zero position. To do this, the seal on the pointer resetting device on the front of the meter cover is cut, not torn and gently turned in a counter-clockwise direction. The pointer will be caught by the spring arm on the resetting device and returned to the zero position. The pointer resetting device may then be gently returned to its original position and resealed. When using the wire-type seal, leave a loop in the seal of approximately 1½ to 2 inches.

6.0 RESETTING DEMAND METER - DEMAND DIALS

6.1 This type register differs from demand point type demand register in that it indicates the kilowatt demand with conventional dials and pointers. The maximum demand dials are read in the same manner as the kilowatt hour dials.

6.2 To reset the demand dials, the Meter Reader cuts the seal of the assembly in the glass cover and depressed the plunger. By rotating the cover plunger, the reset lever is turned counter-clockwise until it contacts the post. An arrow on the face place of the register also indicates the rotation direction. Just before this contact is made, a spring resistance may be encountered, and is a normal action of the anti-jamming springs which protect the mechanism. The reset lever should continue to be turned, meeting this spring resistance until the stop post is contacted.

6.3 The plunger is then rotated in a clockwise direction until the reset lever is in its original position. The cover reset plunger should never be allowed to snap back. The cover reset assembly is then resealed. When using the wire-type seal, leave a loop in the seal of approximately 1½ to 2 inches.

VII. MISCELLANEOUS INFORMATION AND FORMS

1.0 The attached are reserved for general information or specific directives as provided, and also show sample of all forms you are required to use. The samples are properly filled out to serve as guides to you when you are completing the actual forms in your daily work.

ATTACHMENT "A" is available at Customer Services Div.

ATTACHMENT "B" is available at Customer Services Div.

ATTACHMENT "C"

METER READERS OPERATIONAL CODES

SKIP CODES

00	-	DELETE
01	-	METER REMOVED
02	-	CAN'T LOCATE/UNRECORDED
03	-	GATE LOCK
04	-	REFUSED ACCESS
05	-	VICIOUS DOG
06	-	DOOR LOCK
07	-	UNSAFE CONDITIONING
08	-	HEALTH HAZARDS
09	-	NON-DEMAND METER
10	-	NO ACCESS ROAD

LOCATION CODES

00	-	DELETE
01	-	FRONT OF HSE
02	-	REAR OF HSE
03	-	RIGHT SIDE
04	-	LEFT SIDE
05	-	INSIDE HSE
06	-	GARAGE/PORCH
07	-	UPSTAIRS
08	-	DOWN/UNDERSTAIRS
09	-	POLE/PEDESTAL
10	-	TRANSFORMER
11	-	LAUNDRY ROOM
12	-	CLOSET

SPECIAL INSTRUCTIONS

00	-	DELETE
01	-	HAZARD/DOG
02	-	CLOSED GATE/LOCKED DOOR
03	-	DON'T WALK IN
04	-	READ FROM FENCE
05	-	NEED KEY
06	-	GO TO OFFICE
07	-	USE SCOPE
08	-	HAZARD/RIVER
09	-	CALL FIRST
10	-	KNOCK FIRST
11	-	CHECK 4 TAMPERING
12	-	HAZARD/DEBRIS
13	-	HAZARD/OBSTACLES
17	-	4 DIAL METER
18	-	5 DIAL METER
19	-	DEMAND METER

BUILDING INSTRUCTIONS

20	-	10 OR MORE UNITS
21	-	8 UNITS
22	-	3 OR 4 UNITS
23	-	DUPLEX
24	-	CONCRETE HOUSE
25	-	SEMI-CONCRETE
26	-	MODULAR HOUSE
27	-	TIN/WOODEN
28	-	SHACK/RANCH
29	-	WAREHOUSE
30	-	TEMPORARY PWR
31	-	PUMP STATION
32	-	TRAFFIC LIGHT
33	-	PARKS & REC

CODES: * REVISED # ADDED

ATTACHMENT"C" (continued)

TROUBLE CODES

00	-	DELETE	10	-	ABANDONED HOUSE
01	-	POSSIBLE DEFECTIVE	11	-	UNDER CONST
02	-	BROKEN GLASS	12	-	DEMAND METER
03	-	MISSING SEAL/SEAL CUT	13	-	OVERSCALE
04	-	WATER IN METER	14	-	DEF. DEMAND SET
05	-	CUSTOMER THREATS	15	-	TAMPER SUSPECT
06	-	OFFSET DIALS	98	-	CHANGE OUT MTR
07	-	WRONG # OF DIALS	99	-	CHANGE OUT MTR
08	-	METER TOO HIGH			
09	-	METER HIDDEN			

ATTACHMENT "D" Figure 1 and Figure 2

are available at Customer Services Div.

VIII. UNLISTED METER PROCEDURE

1.0 FIRST MONTH

Continue logging of each meter and reading in the Log Book which are found out on the field without an assigned account.

1.1 Meter Shop needs to automate the system on Meter Issuance and Returned Meters to track all the meters and for accessibility by the other sections.

1.2 Supervisor to submit a report on all unlisted meters found out on the field by the Meter Readers with the Monthly Production Report.

2.0 SECOND MONTH

Compare the previous month's reading with the present:

2.1 An assigned Meter Reader will verify the meter on the Customer Inquiry if an account had been assigned.

2.2 Of the reading shows an increase from the previous month, the Reader will submit a Field Investigation Report (trouble report) showing 3 months of readings.

2.3 If non-consuming and meter is located in an apartment complex, meter will be re-strapped with a lock type strap and resealed.

2.4 If non-consuming and meter is on a single unit:

Option 1: Request to Meter Shop will be made to remove the meter and cover the meter socket with a flat glass.

Option 2: Install meter sleeve and re-seal meter.

Option 3: Leave meter intact and terminate power by disconnecting service at the entrance or on the pole.

2.5 After each cycle is read:

2.5.1 A field investigation crew consisting of 1 Meter Reader II and 1 Customer Service Electrician I will investigate findings using the Trouble Reports.

2.5.2 If area is occupied, this crew will approach the occupants and request for documentation as in a recent power bill or a service application.

a. If neither can be furnished, a notice of immediate disconnection will be issued in form of a 24 hour notice.

b. If after the 24 hour notice has expired, and no action is taken, power will be disconnected, meter removed, flat glass and lock strap installed.

2.6 If no occupants are at the premise, the notice for immediate disconnection will be left at the site.

2.6.1 If no action is taken after the notice has expired, power will be disconnected, meter removed, flat glass and lock strap will be installed.

2.6.2 All Unlisted Meters investigated will be tagged with an adhesive warning sticker that will alert the Meter Readers that such meter was investigated.

3.0 THIRD MONTH

3.1 All meters found not to be consuming power will have a lock strap and an updated seal installed.

3.2 All meters found unlisted-consuming or not consuming will be tagged with a warning of tamper sticker.

4.0 MATERIALS NEEDED

Meter Sleeves	Meter Seals
Lock Straps	Locking Device
Flat Glass Cover	Electrical Tape
Copper Connectors	Aluminum Connectors

5.0 **TOOLS NEEDED**

Screwdrivers	Crescent Wrench
Channel Lock	Allen Wrench
Bolt Cutter	Hot Stick
Lineman's Pliers	Rubber Mat
Hi Tension Rubber Gloves	Working Gloves
Skinning Knife	Amprobe
Low Voltage Rubber Gloves	Safety Goggles
Hard Hat	Body Belt Spikes
Ladder	Crimper
Lock Strap Key	Hammer
	Non-conductive Electrical Lubricant

IX. INACCESSIBLE METERS

1.0 **PURPOSE**

To establish procedures to ensure that all meters installed on customer's properties are read and in access for testing, reading and investigations.

2.0 **SCOPE**

These procedures will apply to all Customer Services Field employees and any other concerned section of the Authority.

3.0 **BASIS**

As a requirement of the Authority, all meters installed on customers premises must be read within the scheduled days. When a meter becomes inaccessible, the consumption given to the customer is an estimated consumption.

3.1 Rule 20210.47A....All meters will be installed by the Authority at an approved location on the Customer's premises and will be placed so they are easily accessible for inspections, reading and testing.

3.1.1 (continued)

The customer will, at their expense, providing a new and approved location for all meters in order to comply with the foregoing whenever the existing meter or meters become inaccessible for inspection, reading or testing by reason of any changes made by the owner or tenant of the premises.....

4.0 PROCEDURES

The following procedure should be adhered to in order to assure that all meters found to be inaccessible be properly reported and immediate action to be taken so accurate readings could be obtained.

4.1 When a Meter Reader arrives to the premises of the meter and finds no access to obtain the reading, he/she shall indicate on the electronic reading device an appropriate Skip Code in place of the reading.

4.2 After the reading day has ended, the Codes along with the acquired readings are uploaded to the mainframe and an exception report is created. The exception report will include the accounts with the Skip Codes and an estimated reading and consumption.

4.3 An assigned Disconnection/Reconnection personnel will be tasked to investigate these accounts with estimated consumptions on the next working day.

4.4 After the investigation is completed and an actual reading is still not obtained, then the investigator will submit a trouble report indicating the cause of the inaccessibility.

5.0 REPORTING

The original copy of the Trouble Report is submitted to the Administrative Secretary who will prepare the initial letter notifying the customer of the reason why their meter was not read for the month.

5.1 The letter is then signed by the Electric Meter Reader Supervisor. The customer is then required to notify the Supervisor to make arrangements for the next reading cycle.

5.2 A notice on the customer's power bill will indicate when the reading has been estimated.

5.3 Should the meter remain inaccessible for the next month, then a second letter will be sent to the customer advising them to relocate the meter immediately otherwise the meter will be disconnected. This notification is signed by the Assistant Manager of the Customer Services Division.

5.4 The customer will, at their own expense pay for the relocation of the meter and a reconnection fee before service can be restored.

X. TAGGING PROCEDURES

1.0 The Meter Readers receive the tag notices of all delinquent accounts attached to the proper field sheets the Support Services Section.

2.0 The tags are arranged by sequential numbers as indicated on the field sheets.

3.0 The tags are then separated from the field sheets and bound together. A count of the tags per book is taken and noted in the "tagging log book".

4.0 The Crew Leader assigns the designated personnel to separate books in preparation for actual field tagging.

4.1 The account name in the respective meter book is highlight to indicate the proper account to be tagged.

4.2 The assigned personnel dates and initials both tag notice and field sheet then proceeds with the actual tagging.

5.0 Using the reading books, the tagger locates the site to place the tag.

5.1 The tagger verifies the site by checking the meter number on the meter with that of the tag notice.

5.2 If it corresponds, an actual reading is taken and noted on the field sheet.

5.3 The actual time is also noted on both field sheet and tag notice.

5.4 The tagger then calls out for any occupants on the premises.

6.0 If there is no response, the tag is hung on the front door knob or on place easily visible and secured so the notice won't be blown away.

7.0 If a mature occupant is present and responds, he/she is given the tag personally and advised that the individual whose name is on the tag receives it.

7.1 If a payment for the total amount of the notice was made, the Reader will request to see the receipt. The Reader will then note that the amount was paid, the date paid, the agent who received the payment and a teller or cashier no. on the field sheet. Then the customer is told to disregard the notice and discard the tag.

7.2 If payment was made but the receipt is not available, the Reader advises the customer to call the Customer Services Division to notify them that payment was made when the receipt is on hand.

7.3 If the customer wishes to make the payment, the Meter Reader will advise that the payment must be made in check form only.

7.4 The top portion of the notice is detached and returned with the payment to the Crew Leader who will forward it to Support Services Section. The lower portion of the tag is returned to the customer as a proof of payment as attached to their power bill.

8.0 Upon completion of each tagging assignment, the Crew Leader compiles all the field sheets, payments and attached any tag notices not distributed to its proper field sheet.

9.0 The field sheets and payments are returned to the Support Services.

XI. EMERGENCY CONDITION (METER READER SECTION)

1.0 PURPOSE

1.1 To emphasize the Authority's requirements of its employees to act accordingly during emergency conditions.

1.2 To identify the Meter Reader Section's responsibilities in emergency conditions by assisting GPA units in Island-wide Power Restoration efforts.

2.0 SCOPE

To include the Meter Reader Section as a support group to other sections when the Authority declares emergency condition.

3.0 WARNING

Should Condition III be declared for GovGuam, the Meter Reader Section will continue with normal working procedures.

4.0 PRE-STORM PREPARATIONS

4.1 In the event that impending storm warning is received, all Meter Readers are required to complete work assignments.

4.2 Upon completion, they will proceed to Transportation compound to service all vehicles; check fuel, water and oil level, brake fluid, electrical operation (head/signal lights, wipers, horn, etc.) and to remove all personal effects and assigned safety equipment.

4.3 All vehicle keys will be turned in to Section Supervisor in case vehicle will be utilized by other work groups.

5.0 CONDITION II (during normal working hours)

5.1 The Meter Reader Supervisor will recall all field crews by notifying the Crew Leader to secure work sites.

5.2 All personnel will proceed to Transportation compound to service all vehicles and secure them in the compound.

5.3 All personnel will then proceed to the Main Office for briefing.

6.0 PERSONNEL DISTRIBUTION

6.1 The Section Supervisor will assign the Meter Reader support groups to designated sections in the Authority.

6.2 Six (6) employees will assist the Supply unit as meal runners or to deliver and purchase materials for restoration crews as needed.

6.3 Four (4) employees will be designated to T&D Operations to assist in the delivery of needed equipment and tools to line crews as needed.

6.4 Two (2) employees will be assigned to Transportation compound to assist roving mechanics in repairing vehicles when needed.

6.5 Three (3) employees will be assigned to the Disconnection/Reconnection Section to assist in securing the Customer Services Offices (Northern, Central and Southern), also for minor restoration of power as needed.

7.0 COMMUNICATIONS

All assigned hand radios will be turned in to Section Supervisor to be used by other units during emergency conditions.

8.0 CONDITION II DECLARED AFTER WORKING HOURS

8.1 All personnel must tune in to local radio media for instructions concerning Government employees.

8.2 All personnel must contact their respective Supervisors or Crew Leaders for information and further instructions.

8.3 In the event that 8.1 and 8.2 are not accomplished, all employees must report to work as scheduled.

9.0 TYPHOON CONDITION I

9.1 Personnel not required to work will be released.

9.2 Personnel being assigned to other sections for support will report to respective units by order of Customer Services Manager through Section Supervisor.

10.0 SHIFT SCHEDULE

All support personnel shall work in 12 hour shifts with a minimum of two (2) employees per shift.

11.0 COMPENSATION PROCEDURES

11.1 All non-shift and shift personnel will be paid at their single rate for all hours of work performed during their posted regular work schedules and the applicable overtime rate for all hours of work performed outside their regular work schedule, regardless of typhoon condition.

11.2 Personnel released under the provisions of 9.1 will be granted Administrative Leave for the hours affected.

12.0 CLEAN-UP

All personnel will assist the Disconnection/Reconnection Section clear all debris from Customer Services Offices when normalcy is declared.

13.0 OTHER DETAILED PROCEDURES

Other detailed procedures with respect to the operation of each department during typhoon conditions shall be established as a published respective department order.