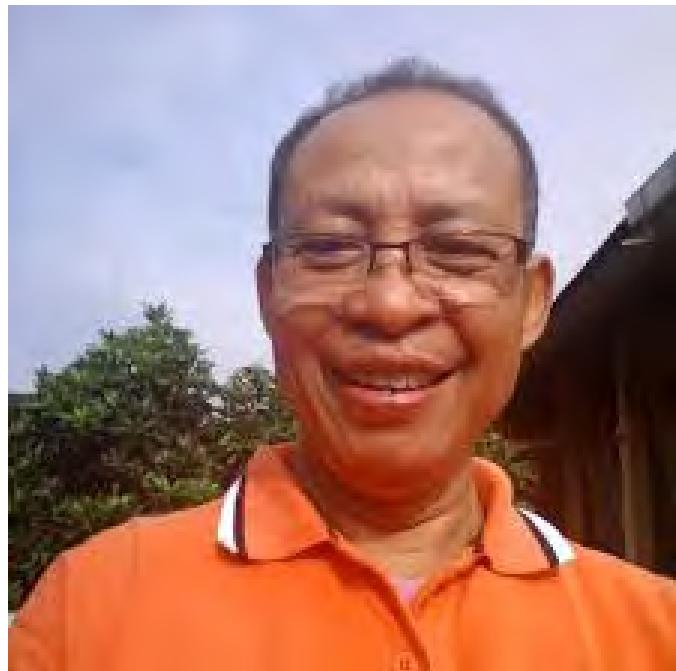


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SPHM
HOSPITALITY

SPHM – HOTEL ENGINEERING MANUAL



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Hotel Engineering Manual



SPHM Hospitality Management

ENGINEERING MANUAL

POLICIES AND PROCEDURES



PREFACE

This ***Engineering Manual*** was prepared for use by hotels under the management of Sun Paradise Hotels Management. Local conditions vary from one property to another and it is the responsibility of the General Manager and the Chief Engineer to determine the extension of application of the controls procedures described in this Manual and to develop additional or alternative procedures appropriate to the Hotel's operations.



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SECTION A - 1

MAINTENANCE ADMINISTRATION

Maintenance is to upkeep the physical plant and equipment using given facilities at limited time and minimum maintenance cost with proper protection of capital investment.

Maintenance is a continuing cost in any hotel operation regardless of size. It is different from other kinds of costs, particularly labour costs, as it is loss related to the variable factors of room occupancies and food and beverage income.

It is obvious that the more guests who use the hotel's facilities, the greater the wear and tear on the building rooms, equipment etc. but it is not feasible to adjust the maintenance staff to the variables of occupancies or restaurant covers.

The basis in controlling maintenance labour costs is to classify the jobs that have to be done. These can be put into four general categories:

- 1) Standard Routines
- 2) Engineering and Maintenance Work
- 3) Preventive Maintenance
- 4) Planned Special Projects

1. Standard Routines

This refers to daily tasks of starting up equipment, checking systems, temperatures, pressures, keeping logs of operating machinery, monitoring and recording utility usages and other tasks normally associated or assigned to the maintenance staff. Most items classified as routine are those performed on a fixed basis - generally daily or by shift.

2. Engineering and Maintenance Work

An effective preventive maintenance programme will reduce breakdowns but it will not eliminate them. This category covers guest complaints, breakdowns and emergency repairs. These services should be attended to automatically and speedily.



3. Preventive Maintenance

This also includes work done on a routine basis but refers to that done less frequently. This includes periodic cleaning and oiling of motors, pumps, boiler tubes, condensers, cooling towers, storage tanks and other equipment. It also covers changing of belts, cleaning of filters and coils and similar tasks which when performed according to a proper schedule will prevent mechanical breakdowns and extend life of equipment.

Preventive maintenance schedules should be developed using manufacturers' recommendations and also adapting them, where necessary, to local conditions. (See Section A-4 for preventive maintenance details).

4. Planned Special Projects

This includes major renovation projects and changes of original design to upgrade and improve facilities. This also includes installing new machinery and equipment, painting and/or redecoration of areas and other jobs which can be anticipated in advance and planned accordingly.

Some of these jobs fall under capital items but they require labour, time and materials and require budgeting before execution and should be approved by the General Manager.

Functions where time is required for setting up special lighting, sound systems, and other facilities and also providing service for is also a form of special projects

Seasonal jobs such as changing over the air-conditioning system from heating to cooling or vice-versa, preparing swimming pools for summer and closing them for winter and similar jobs are also under this category.

Classifying Work

Everything connected with engineering, repairs and maintenance involves labour, time and/or materials and should correspond with the annual budget. The budget must be established prior to the beginning of the year and controlled month by month. Regular inventories should be made. All parts and materials should be charged during the month received.



At the time of preparing the budget, inventory, replacement and new additions must be considered.

It is therefore essential that the Technical Manager ensures that all equipment and machinery is constantly watched to see what action is needed to avoid breakdowns and that corrective action is promptly taken, not at the last minute as an emergency, but that all work should be determined beforehand and properly planned for the coming year. All equipment should be reviewed and costs estimated to ensure that the necessary funds are provided to keep the hotel up to Sun Paradise Hotels Management's standards. Any part of the building and equipment which are not up to standard has to be corrected. That means repairs on the necessary items, replacement of parts, and overhaul or refurbishment after deterioration.



SECTION A - 2

A-2.1 General

- A-2.1.1 The Technical Manager should have a meeting with Shift Engineers and Supervisors every morning to discuss immediate problems and daily routines.
- A-2.1.2 It is recommended that the Technical Manager arrive early enough in the morning to briefly discuss with the off going early morning duty Engineer any unusual or disturbing occurrences during the overnight shifts.
- A-2.1.3 A 'Maintenance' meeting should be set up once a week with:
 - Rooms Division Manager
 - F & B Manager
 - Housekeeper
 - Chaired by Resident ManagerTo discuss outstanding work orders and repair orders. This meeting is considered advisable so that any problems in completing jobs can be discussed, and also to create closer co-ordination between department heads.
- A-2.1.4 The Technical Manager should arrange with the Chef to meet once a week on a regular basis to discuss any problems.
- A-2.1.5 Energy Conservation Committee meetings must be attended every month - see Energy Conservation Manual.



A-2.2 Fixed Routines

A-2.2.1 Daily

1. Operating machinery log (every hour).
2. Public area temperature log (every 2 hours). Refer to Form SR1.
3. Function Room temperature log (every 2 hours during operation). Refer to Form SR2.
4. Walk-in chillers and freezers (every 4 hours). Refer to Form SR3.
5. KWH readings (every 8 hours) incorporated in operating log.
6. Bunker fuel readings (every 8 hours) incorporated in operating log.
7. Diesel fuel readings (every 8 hours) incorporated in operating log.
8. Gas consumption reading (every 8 hours) incorporated in operating log.
9. Water consumption reading (every 8 hours) incorporated in operating log.
10. Inspection of all operating machinery (continuous).
11. TV and radio tuning - 8 a.m.
12. Fire alarm panel - each shift.
13. Check emergency generator battery.
14. Check emergency generator fuel and water.
15. Cooling tower chemical dosage.
16. Swimming pool chemical test and dosage (evenings).
17. Work order report. Refer to Form SR4.

A-2.2.2 Weekly

1. Test run emergency generator.
2. Check perimeter sewage and drainage.
3. Sump pumps.
4. Roof cleaning.
5. Kitchen stove cleaning (with steward's department).
6. Running equipment changed over - chillers, boilers, pumps etc.
7. Sound equipment check list. Refer to Form SR5.
8. Random guest room temperature records. Refer to Form SR6.



A-2.2.3 Monthly

- a. Submit utility report to Group Technical Manager. Refer to Form HL&P-1.
- b. Submit copy of each Monday's public area temperature log.
- c. Materials and equipment consumption for budget.
- d. Fire drill.

A-2.2.4 Quarterly

1. Preparation of quarterly report for Bureau of Energy (Manila).

A-2.2.5 Yearly

1. Check and tighten main switchboard connections - this involves shut-down of power.
2. Transformer and hi-tension switchgear maintenance - this involves shut-down of power.
3. No-load test of elevators.
4. Application for permits for electrical, mechanical, boilers, elevators, fire services etc.

A-2.2.6 General

1. Fire extinguishers should be checked regularly for pressure and condition and re-charged every twelve months.
2. Every 5 years the elevators should be subjected to a thorough full load test in accordance with the manufacturer's recommendations. Full details of test should be established with the lift manufacturer to ensure that the maintenance contractor complies.

N.B. Whilst this is a brief summary of standard operating routines, it does not limit routines as each property must adapt to its own particular equipment and operations.

Regular maintenance should be carried out in accordance with the Preventive Maintenance Programme.



A-2.3 Shift Procedures

The system of communication among Shift Engineers is by means of a log book. This log book is a diary type book with numbered pages and is filled in by each Shift Engineer during his tour of duty as events happen and is signed by him at the end of his shift.

At the start of each shift, the Shift Engineer should sign that he has received the shift keys from the proceeding Shift Engineer and record the names of staff reporting for shift duty and any absences.

Any special instructions by the Technical Manager to the Shift Engineers should also be recorded by the Technical Manager in this log book.

The Technical Manager should read this log book every morning and initial it.

Sound Equipment Status Checklist

Banquets and functions are important revenue earners and it is essential that equipment such as movie projectors, slide projectors, tape recorders, amplifiers etc. are kept in good working condition.

The sound equipment status check-list should be submitted by the sound/electronic technician to the Technical Manager on a weekly basis.

* * * * *



SECTION A - 3

A-3.1 Work Orders

A typical Work Order form is included on the following pages and also a flow chart showing the distribution. Work orders should be signed by department heads or designated supervisors.

In the case of work order requests for new work, these should be forwarded by the originating department head to the Resident Manager for counter signing for confirmation that the new work is necessary.

A-3.2 Telephoned Work Requests

Telephoned work requests should be limited to urgent work i.e., guest inconvenience, leaks etc. and must be followed up with a Work Order which should indicate that this has already been telephoned in.

The following form should be kept adjacent to the telephone in the Engineering Office to record telephoned requests and the work delegated on a priority basis.

A-3.3 Emergency or Temporary Work in Guest Rooms

In some instances, emergency or temporary measures have to be effected in guest rooms, especially during the night, so as not to cause inconvenience to the guest or if the guest requests that the work be done at some other time. The following forms should then be issued to the Duty Manager by the Duty Engineer so that a follow-up is assured as soon as the room becomes available.

The copy should be retained in the pending tray until the original is returned to Engineering for action. When the work is finally completed this form should be filed with the corresponding work order.

* * * * *



SECTION A - 4

A-4.1 Introduction

The amount, complexity and cost of engineering plant, services and equipment, and building works in modern hotels point to the need for systematic examination and routine maintenance to be done in accordance with a programme, devised to suit the individual hotel.

This Section describes simply and clearly the Preventive Maintenance Programme to be followed by the Sun Paradise Hotels Management.

A-4.2 General Considerations

The object of a planned preventive maintenance programme is to keep plant and services in good operating condition at all times.

Some of the benefits of such systems are:

- a) Even spread of the engineering maintenance work load over the year, making for more positive calculation of staff requirements and budgetary control.
- b) Fewer emergency situations arising from breakdowns.
- c) Extension of the working life of the plant.
- d) Economic operation of the plant through maximum efficiency.

The reliability of equipment and machinery depends on close attention to operating manuals, and application of precise amounts of specified lubrication at proper intervals, together with close observation of plant and equipment operation.

Without management's recognition of the importance of this, and the realisation that planned preventive maintenance is essential, plant will develop more costly unplanned emergency maintenance repairs and breakdowns, including inconveniences and possible loss of revenues.

The Engineering Department plays a vital role in any hotel operation, and it is the prime responsibility of the Technical Manager and his senior personnel to produce a



proper planned maintenance programme for all the hotel's plant and machinery.

Guidance and assistance in producing the programme will be given by the Group Technical Director, and the introduction of this Manual forms the foundation on which this will built.

The system is comprehensive, adaptable, easy to introduce and simple to operate.

A-4.3 SYSTEM

A-4.3.1 Equipment

Each piece of equipment is numbered at its location and listed in the Preventive Maintenance Programme under this number.

A-4.3.2 Record Card

Equipment record cards are provided for each piece of equipment containing equipment description, such as manufacturer, model number, and specifications of the motor, pump or fan etc. (Refer to Form PRM-1).

A-4.3.3 Equipment Maintenance Record

A corresponding Maintenance Record Card is also kept on which is entered the specific work done, date performed, spare parts used etc. (Refer to Form PRM-2). This formulates the equipment history which is essential for carrying out and evaluation of recurring problems is it reasonable to continue maintaining the existing equipment for an indefinite period, or should new equipment be purchased.

A-4.3.4 Preventive Maintenance Programme

The Preventive Maintenance Programme, formulated on a month by month basis, identifies specific times and frequency that equipment is to be checked, and should be strictly followed to ensure that equipment is regularly checked. (Refer to Form PRM-3). It may, however, be necessary to adjust the programme from time to time



to suit conditions and workloads. This will be reflected in the Technical Manager's weekly report from the programmer.

Annual overhauls are also included on a monthly basis spread over a twelve month period to give an even spread of overall work. These annual overhauls should be programmed as much as possible to coincide with low occupancy periods, and summer/winter conditions etc. For example, main A/C chillers should be programmed in the cooler season when air conditioning requirements are at a minimum. (Refer to Form PRM-4)

The overhauls for the following month are issued to the respective sections one week prior to the first of the month to enable section supervisors to schedule the work.

Routine Maintenance Work Orders are issued in the Engineering Department to the appropriate supervisor based upon the Preventive Maintenance Programme. Typical recording forms for routine maintenance work, to be kept as records, follow as Forms PRM-5-6. However, each hotel should develop forms to suit its own particular equipment.

A-4.4 Guest Room Preventive Maintenance Programme

The Maintenance Programme provides a fixed schedule and routine for maintaining 25% of the guest rooms each month.

Guest room preventive maintenance is scheduled on a room-to-room basis eventually completing the entire house. When the last room is completed, the cycle will be started over, enabling a thorough inspection and maintenance in each room three times a year.

The staff assigned to this Programme should be all-round mechanics and as such require training.

Since they will have more guest contact than anyone else in the Technical Department, the persons should be carefully selected.

Training should start by staff being shown exactly what to look for in the rooms. During the first weeks, training should be given by each Trade Foreman will have to



show the locations of MCB panels and how to replace receptacles and light switches and what safety precautions are to be taken.

Training must be given in the removal, disassembly repair/replacement of locks. Skills must also include minor repair to wall coverings.

In general, the staff assigned will become what is termed `A JACK OF ALL TRADES` able to cope with minor repairs/replacements and be responsible for leaving the guest room in perfect condition. Any deficiency that would take an excessive amount of time to correct or is beyond the capabilities of the team should be noted on Work Orders immediately. Such items could include upholstery and furniture repair, burn items in carpets, painting of walls and TV repair, etc.

A Quota System should be developed where 25% of the guest rooms are services each month. Thus ensuring that all rooms are covered in four months.

A comprehensive list of duties including a Check List and Reporting and Reference System must be established. Each item is checked off as inspected and/or repaired. At the end of each week the Check List is to be submitted to the Technical Manager and then filed.

At variable intervals, but at least once a week, the Technical Manager must inspect a series of rooms newly completed and any difficulties/problems should be discussed.

Obviously the Technical Manager will not be able to inspect all rooms. However, he should schedule to check at least 10% of the rooms and these should be recorded on the Monthly Report.

To enable this Programme to be put into effect the Technical Manager must evaluate the number of rooms and the Monthly Quota and decide on staff assignment.

Once the Quota has been established it must be strictly adhered to and it should result in an increase in employee production.

A maintenance chart must be provided for the team or teams if the property is sufficiently large.

This chart should have the following provisions:-



Large wheels to roll easily and quietly over floors, carpets, in and out of lifts, over door sills, etc. Ample storage space with drawers and bins and able to be locked against theft. The chart should, in effect, be a small portable workshop and since the principle of the chart is to avoid travelling time back and forth between workshops and rooms, a specific time each week should be set aside for stocking the chart to eliminate needless trips. Equipment to be carried in the chart includes a comprehensive Check List and all tools and materials necessary for room maintenance.

A typical Maintenance Check List is attached but this has to be customised to suit each property.

If a planned maintenance programme is adopted in conjunction with routine maintenance, which requires good housekeeping and corrective regular maintenance, then it is feasible to adopt a 12 years cycle. This means the room redecoration can be projected over 12 years and the costs added together divided by 12, and the resultant figure then forms the basis of the planned maintenance budget.

The overall cycle can then be broken into 4 and 8 year activities but AGAIN this is dependent on room usage wear and tear, and quality, and in a high occupancy property it may even be necessary to sub-divide this again into 2 year activities although this should be avoided if possible as the impression would be created that the hotel is constantly having major repairs. If routine maintenance is good, then this should be sufficient to implement the 4 and 8 year activities.

The preparation of a planned maintenance programme is not the sole responsibility of the Technical Manager. The Housekeeper must submit her requirements as; after all, the Housekeeping Department is responsible for reporting on room status, and ensuring that corrective regular maintenance is carried out through the work order system.

The Housekeeper should therefore indicate on the list the items that require to be done.

The Technical Manager should indicate where air conditioning/mechanical/electrical items are to be tackled.

The General Manager/Resident Manager should take overall responsibility for coordinating the programme in its initial planning stages and ensure that the



programme selected will satisfy his needs. The Rooms Division Manager is also part of the coordinating team, as he must advise and be aware of time schedules.

Estimates and quotations must then be obtained.

It is the responsibility of the Technical Manager to ensure that the system functions properly.

A monthly meeting should be held between the General Manager and the Technical Manager to discuss how the system is functioning and to ensure that both parties are aware how the system relates to the operation as a whole.

* * * * *



SECTION A - 5

A-5.1 Planned Maintenance - Guest Rooms

The objective is to maintain rooms at the same standard at all times. Unless a concept change has been carried out, it should not be too obvious that a room has been re-decorated.

Once a planned maintenance programme is started, it is much more workable than doing individual refurbishing as it is much easier to keep records of the repair status of rooms, it also ensures that rooms are not overlooked and that they are kept up to standard regularly.

Obviously a complete list of every item in the room must be tabulated. This includes everything from curtains, to bathtub stoppers, to painting/varnishing, to waste bins, etc. This is very laborious but MUST be done.

Once this has been prepared, each item must be inspected to establish to what extent the planned maintenance will be required bearing in mind that first must be established which cycle will be used. In a hotel with high average occupancies, obviously the wear and tear will be much greater than in a hotel with medium or low occupancies where room usage can be controller to give a lower average use.

In commencing a planned maintenance programme for the first time, it is recommended that a concept change period be established. This also is dependent upon wear and tear, as with very high occupancies this period has to be established in each property and, most important, `QUALITY` of the product initially installed. It is no good planning carpet replacement for say 8 years if the carpet is of inferior or poor quality to start with.

The preparation of the programme together with obtaining quotations and costs, calling for tenders, or organising outside work forces if the work is to be done on a purchase of materials and separate day labour force basis, and also supervising the work to be done, is virtually a full time job which should not reasonably be delegated to a Department Head as this would interfere with his/her regular duties.



The scheduling for the work to be done should be discussed in detail with the Rooms Division Manager as Sections of Rooms will need to be blocked in advance. It is essential to have an overlap of sections so that the work can be carried out on a continuous basis. It is also essential that time schedules are strictly adhered to, to ensure that rooms are put back into commission on time. Care must be taken when initial scheduling is done so that adequate time is given for each activity as, once a backlog occurs, it is extremely difficult to catch up.

The total numbers of rooms to be included in each section of the programme is obviously dependent on occupancy forecasts, however it must be pointed out that unless planned maintenance programmes are implemented, the overall standard of the hotel will suffer and greater costs and inconveniences as well as room saleability problems will occur due to the majority of rooms all requiring major rectification at the same time.



SECTION A - 6

A-6.1 General

A major responsibility of the Technical Department is to supervise the hotel's energy consumption to achieve maximum operating economy. Because the utilities supplied to the property are normally on a continuous automatic basis there could be tendency to neglect or overlook many of the necessary procedures. Small leaks or inefficiencies may go unnoticed or undetected when they first occur. If allowed to go unattended the losses usually increase slowly and steadily affect the hotel's profits. You should refer to the Energy Conservation Manual for more detailed information.

Utilities are sold to the hotels under terms and conditions dependent upon the local authorities governing requirements and it is the Technical Manager's responsibility to ensure that his property obtains the most advantageous rates applicable.

Where a demand charge for electricity is applicable it is the Technical Manager's responsibility to properly plan to avoid excess peak demands as usually if you create a high demand, even for one short period, you have to pay for this demand in the same amount as if you had used this demand for the entire month.

Power factor is also equally important and there are usually minimum limits set and even bonuses for improving power factor. Technical Managers are responsible for ensuring that their facility is operating at optimum efficiency and lowest charges for electricity supply.

In the cases of gas, water and oil, where an abnormally high use is registered in the daily log, an immediate investigation must be carried out and any corrective measures must be noted in the log. The average use of utilities will of course be reflected in the location, climate, occupancies etc. of individual properties together with factors such as swimming pools, laundry, cooling towers etc. But a 'NORM' can soon be established.

Conservation of energy is to be a 'WAY OF LIFE' for technical departments and you should refer to the Energy Conservation Manual.



Verification of Invoices Prior to Payment

All invoices concerning utilities should be routed to and approved by the Technical Manager prior to payment. The Technical Manager must verify the utility and fuel consumption figures prior to approval of payment. In view of the fact that utility meter readings are usually different periods than those logged by the duty engineers, it may be necessary for the Technical Manager to make calculations from the log data to permit verification.

A-6.2 Instruction on How to Complete Utility Reports

Energy Consumption Forms

Form EC-1

Column 1 - Month

Column 2 & 3 - Heating Degree Days/Cooling Degree Days

The coldness of winter or the hotness of a summer is measured by degree days. This information is important because daily requirements for heating or cooling are affected by the difference between 65 F and the outdoor mean daily temperature. The outdoor mean daily temperature is the average of the maximum and minimum outdoor temperature during the 24 hours of a given day.

If the maximum temperature during the day is 55 f and the minimum is 35 F, the mean would be 45 F and is commonly expressed as 20 degree days in the month and each has 20 degree days, total degree days would be 20×30 or 600.

Cooling degree days are determined in a similar manner. Mean temperature minus 65 F equals cooling degree days. The mean figure should be obtained from your Daily Public Area Temperature Schedule form.

Column 4 - No. of People

This figure should be obtained from the Rooms Division Department and is the total number of guests calculated on a daily basis for the month.



Column 5 - Kwh

This should be indicated in millions of BTU's.

i.e. Kwh x .0034 = BTU's (million)

Column 6 - Fuel Oil

This should be indicated in millions of BTU's. Conversion factor dependent upon grade of oil being used

Column 7 - Gas

This should be indicating in millions of BTU's. Suppliers can provide conversion factors.

Column 8 - Water

Total consumption in litres (thousands)

Column 9 - Total Energy Used This Year - Millions of BTU's.

This is the total energy used in Millions of BTU's.

Column 10 - Previous Year

Last year's figure

Column 11 - Energy Used Per Unit - Thousands of BTU/Guest Day (This Year)

To determine the thousands of BTU's used per guest day divide Col. 9 by Col. 4 and multiply by 1000.

Column 12 - Energy Used Per Unit - Thousands of BTU/Guest Day (Prior Year)

Last year's figure

Column 13 - Energy Utilisation Index - BTU/Sq. ft



This column is indicated to have total units of energy from Col. 9 divided by the square foot of the building. The square foot of the building is the gross area which is obtained by multiplying the outside dimensions by the number of similar floors including those below ground. Gardens and surrounds are not included.

Column 14 - Water Used Per Unit

This is determined by dividing Col. 8 by Col. 4 to obtain litres/guest day.

Form EC-2

Column 2 - Average Occupancy

Average occupancy for the month obtained from Rooms Division Department.

Column 3 - No. of People

Same as Form EC - 1

Column 4 - Water

Total Consumption in litres (thousands)

Column 5 - Water Cost

Obtained from water bill

Column 6 - Elect

Total monthly consumption in Kwh taken from utility bill

Column 7 - Elect Cost

Cost of electricity, taken from utility bill.

Column 8 - Fuel Oil

Total monthly consumption in litres

Column 9 - Fuel Oil Cost



Total monthly cost.

Column 10 - Gas

Total number of therms consumed.

Column 11 - Gas Cost

Monthly cost

Column 12 - Food Covers

Total number of food covers - figure obtained from food & Beverage and/or Controller's Department.

Column 13 - Outside Temp

Average outside temperature in C calculated from daily log book.

Column 14 - Power Factor

Average power factor recorded - calculated from daily log and verified by utility bill.



Details of Work Example

A. Guest Rooms & Suites - 4 Year Scheme

- a. Re-wallpapering.
- b. Replace net curtains and drapes.
- c. Replace curtain accessories as required.
- d. Replace bedcover.
- e. Replace upholstery.
- f. Re-paint plastered wall.
- g. Repaint acoustic ceiling.
- h. Repaint window frame.
- i. Re-polish woodwork.

B. Guest Rooms & Suites - 8 Year Scheme

As 4 year scheme plus replacement of carpet

C. Corridors - 4 Year Scheme

- a. Replace carpet.
- b. Re-wallpapering.
- c. Repaint ceiling.
- d. Re-polish woodwork.

Additional items can be added:

- a. Re-chroming bathroom fittings and hanging rails
- b. Replace loose furniture's (every 8 year)
- c. Replace lamps (every 12 year)
- d. Replace fan coil units (every 8 year)
- e. Enamel bathtub and wash basin (every 12 year)
- f. Replace broken bathroom tiles (every 12 year)



HOTEL_____

DATE_____

PERIOD_____

MONTHLY SUMMARY REPORT

NUMBER OF ROOMS_____

MONTHLY QUOTA_____

COMPLETED THIS MONTH_____

% THIS MONTH_____

COMPLETED THIS PERIOD_____

% THIS PERIOD_____

NUMBER OF ROOMS INSPECTED BY

TECHNICAL MANAGER_____

% THIS MONTH_____

COMPLETED ROOM NUMBERS

LEGEND

PERIOD I - JANUARY 1ST - APRIL 30TH

NOTES: 1. INDICATE ROOMS

PERIOD II - MAY 1ST - AUGUST 31ST

INSPECTED BY

PERIOD III - SEPTEMBER - DECEMBER 31ST

TECHNICAL MANAGER

BY*



BE

2.

REPORTS TO

SUBMITTED TO GROUP

TECHNICAL MANAGER

BY 15TH OF EACH

SIGNED : _____

MONTH.

TECHNICAL MANAGER



Notes on Monthly Summary Report

HOTEL: Name of property

DATE: Date report is filled out

PERIOD: Period I January 1st - April 30th

Period II May 1st - August 31st

Period III Sept. 1st - December 31st

NO. OF ROOMS: Total number of guest rooms

MONTHLY : The total number of rooms to be inspected by the QUOTA maintenance team for the month. If for instance there are 25 working days in a month, then that equates to 100 days per period therefore quota of

500 = 5 rooms per day

100

or $25 \times 5 : 125$ rooms per month (25% of total).

COMPLETED : This means the total number of rooms that the team

THIS MONTH has completed that particular month.

% THIS MONTH: To arrive at the percentage, divide the number of completed rooms by the quota for that month, multiply by 100.



COMPLETED : The total number of rooms completed in a

THIS MONTH particular period

% THIS : Calculation is similar to the % This Month, where

PERIOD it is the 'Completed This Period' figure divided by number of rooms. In other words a 500 room hotel at the end of the second month of that particular period should have completed 250 rooms. Therefore % This Period would be

$$\frac{250}{500} = 50\%$$

500

NO.OF : Total number of rooms that have been inspected

ROOMS this month by the Technical Manager after

INSPECTED completion by the maintenance team. These are

BY T.M. designated by an asterisk*.

% THIS MONTH: Percentage of rooms checked by Technical Manager - divide the number of rooms inspected by the Technical Manager by the number of rooms completed by the maintenance team.



Maintenance Check List

Air Conditioners

1. Pneumatic Control - Lubricate valve stem & O-ring, check opening and closing.
2. Knob on Thermostat - Secure.
3. Filter - Clean.
4. Condense Water Drain - Clean.
5. Hand Valves - Check, to be open.

Lamps (Portable)

6. Switches - Check
7. Lamp Sockets - Tighten
8. Lamp Shades - Repair or Replace.
9. Cord on Valance Light Pull Switch - check, replace if necessary.
10. Cover on Valance Light - Secure
11. Bulb - Replace if necessary.
12. Plugs - Replace if necessary.

Switches and Receptacles

13. Outlet Wall Plates - Change plates to match wall colour, inspect, clean, secure.
14. Switches - Change plates to match wall colour, inspect, clean, secure.
15. Switches & Receptacles - Replace missing screws.
16. Receptacles - Change if necessary.

Televisions

17. Audio - Check radio channels.
18. Video - Check television channels.
19. Knobs - Replace if necessary.
20. Fine Tuning - Adjust if necessary.
21. Antenna Outlet - Secure plate.
22. Antenna Connectors - Check, repair if necessary
23. Remote Control and Connections - Check.

Telephone



- 24. Dialling Instructions - Replace if necessary or broken.
- 25. Defects - Report any other defects to hotel operator.

Furniture

- 26. Drawer Handles & knob - Check, replace if necessary.
- 27. Drawer Guides - Lubricate if needed.
- 28. Stains - Clean and touch-up
- 29. Springs on Chairs - Check.
- 30. Marble Table Tops - Check, repair small defects.
- 31. Headboards - Check and secure.
- 32. Wheels - Check and secure

Windows and Mirrors

- 33. Window Guides - Lubricate.
- 34. Mirror Hangers - Check and secure.
- 35. Window Hardware - Check and secure.

Drapery Track and Rollers

- 36. Inspect and secure all drapery track and rollers.

Closets

- 37. Sliding Door Tracks - Check and repair if necessary.
- 38. Floor Guides for Sliding Doors - Check.
- 39. Bumpers on Sliding Doors - Check.
- 40. Floor Door Stop - Check.
- 41. Wall Hooks - Check.

Doors (Main Entrance, Bathroom and Connecting)

- 42. Handles - Check and re-secure.
- 43. Lock Cylinder Set Screw - Check.
- 44. Hinges and Hinge Pins - Lubricate and secure.
- 45. Door Chain - Check, repair if necessary.
- 46. Lock Striker Plates - Check and secure
- 47. Night Latch - Check.
- 48. Door Frame Rubber Bumpers - check, replace if necessary.



49. Fire Exit Plan - Check.

Bathroom

50. Bath Tub Safety - Slip guard used.
51. Toilet Flush Valve - Check.
52. Toilet Cover Bumper - Check.
53. Seat Hinges - Check and secure.
54. Toilet Seal - Check for evidence of leaks.
55. Bath Drain Plugs & Pop-up - Check.
56. Mixing Valve - Secure handle.
57. Mixing Valve Washers - Replace if necessary.
58. Hot and Cold Faucets - Check and/or replace "H" and "C" buttons.
59. Escutcheon Plates - Secure.
60. Shower Enclosure, Tracks and Doors - Check.
61. Shower Enclosure Bumpers and Handles - Check.
62. Ice Water Mechanism - Check.
63. P Trap under Basin - Check.
64. Drain Pop-ups - Check.
65. Faucet Strainer - Clean or replace.
66. Basin Bowl Hangers - Re-glue or resecure.
67. Toilet Paper Holder - Check.
68. Razor Blade Dispenser - Check.
69. Bottle Opener - Check.
70. Kleenex Holder - Replace or re-secure.
71. Floor and Wall Tile - Check.
72. Soap Dish and Grab Bars - Check and re-secure.
73. Towel Racks – Re-secure.
74. Toilet Privacy Locks - Check.

Bath Scales

75. Check correct weight.
76. Check mechanism under scales.

General Check

77. Baseboards - Check.



- 78. Carpet - Check.
- 79. Vinyl - Check.
- 80. Pictures - Check.
- 81. Ceilings - Check for cracks and/or peeling paint.
- 82. Paint - Check paint on walls and door casings.

A-7 Job Descriptions

- A-7.1 Technical Manager
- A-7.2 Assistant Technical Manager
- A-7.3 Building Maintenance Head
- A-7.4 Duty Engineer
- A-7.5 Foreman - Mechanical Section
- A-7.6 Foreman - Electrical Section
- A-7.7 Foreman - Gardening Section
- A-7.8 Plant Technician
- A-7.9 Mechanic
- A-7.10 Plumber
- A-7.11 Electrician
- A-7.12 Carpenter
- A-7.13 Maintenance Programmer
- A-7.14 Secretary
- A-7.15 Painter
- A-7.16 Utility Man





A-7.1 Technical Manager

General

1. Is responsible for operation and maintenance of physical plant and engineering facilities of the Hotel.
2. Directs engineering operation and maintenance economically and in accordance with the Design Engineers specifications, the Equipment Manufacturers recommendations, the Hotel policies and procedures and the operations schedule and requirements.
3. Directs execution of the Hotel safety programme including assistance to other Department Heads in following up on safety in all parts of the Hotel operation by regularly inspecting, reporting, recommending, and giving lectures in safety and makes safety aids available for training exercise.

Authority

1. Works closely with the Management to carry out responsibilities assigned by him, correctly adheres to local labour law, regulations and policies, as well as all Hotel rules and regulations and policies and procedures.
2. He has the authority to assign responsibilities and to delegate authority within his own authority to his staff as he finds necessary in order to economically, safely and efficiently carry out the duties he has been entrusted.
3. He has in an emergency the authority and responsibility to take any necessary steps, necessary to safeguard human life and Hotel or guest property.

Scope

1. Operation, maintenance and repair of physical plant that provides water, heat, light and power for the Hotel.
2. Maintenance and repair of the entire building with furniture, fixtures, equipment and other facilities.
3. Engineering advice to the Management and staff needed in operation of the Hotel with its facilities.



Function

1. Provide water, heat, light and power for the entire Hotel.
2. Maintain and up-keep the entire Hotel with all its equipment and facilities.
3. Provide engineering craft service needed for the safe and efficient operation of the Hotel facilities.

Responsibilities

1. Generation and distribution of electric power.
2. Production and distribution of water.
3. Production and distribution of steam.
4. Produce required temperatures and air-conditions in specified spaces as specified.
5. Collecting processing and disposing of refuse.
6. Operation of vertical transportation.
7. Engineering and execution of planned maintenance, repairs, installations, and replacements.
8. Administration and supervision of engineering craft personnel.
9. Administration and supervision of other service facilities delegated to the Engineering Department.
10. Technical consultation on engineering problems with other departments.
11. Maintaining adequate fire and safety standards, including contacts with respective city/government authority.
12. Maintaining adequate records of equipment and property.
13. Keep Management informed of all finding pertaining to Engineering Department.

Description of Responsibilities

1. Generates, purchases and distributes necessary electric power required in the most economical and efficient manner.
2. Produces, purchases, treats, and distributes water at temperature and conditions required in the most economical and efficient manner.
3. Produces and distributes steam at condition and pressures required in the most economical and efficient manner.
4. Supplies, exhausts, cleans, circulates, cools, heats, humidifies, dehumidifies air as may be necessary to maintain specified temperature, humidifies and



comfort in specified areas throughout the entire Hotel as designed and specified in the most economical way.

5. Treats and disposes of all refuse in the most economical and efficient manner.
6. Ensures that elevators operate as designed to satisfy the needs in the most economical and efficient manner.
7. Maintains a preventive maintenance programme of all equipment installations, building, grounds, furnitures and fixtures to ensure maximum utilisation and minimum breakdowns at a minimum cost for maximum efficiency and best appearance.
8. Ensure adequate spare parts at hand consistent with current conditions by estimating and ordering needed parts in due time.
9. Obtains information and knowledge to keep abreast of industry practice, technological advancement, new methods, equipment, and materials.
10. Prepare monthly reports, charts and data, forward to Group Technical Director before 15th of each month of the previous month usage/consumption of fuel oil, gas, water, electricity, steam, gasoline and the engineering condition of the various systems on special reports form, giving a true picture of where the Hotel stands maintenance wise and consumption wise with recommendations of what must be done for improvements and corrections.
11. Plans, directs and coordinates operation of the Engineering Department. Analyses and appraises monthly the effectiveness with which the Engineering Department operates to see that established work policies and operational procedures are adhered to and that prompt corrective action are taken whenever and wherever needed.
12. Delegate authority to personnel under his direction to carry out responsibilities and objectives to assure correct functioning of the Engineering Department with its responsibilities.
13. Maintains continuously training programmes for his personnel to maintain a high vigilance for efficiency, effectiveness, and new better and more economical work method.
14. Inspect the entire Hotel property as often as the finds necessary, consulting all other Department Heads regarding maintenance problems their solution.
15. Attends weekly Department Heads Meeting and bring up subjects that have implications.
16. Attends bi-monthly engineering staff meetings.
17. Holds weekly engineering staff meetings.
18. Prepare engineering employees six monthly job performance reviews.
19. Recommends engineering store room requisition to the Storekeeper.



- 20. Prepare and submit to Management for approval engineering yearly three month review: heat, light and power, capital expenditure account and repair and maintenance budget.
- 21. In cooperation with the Personnel Manager recommends to General Manager hiring and dismissal of Engineering personnel on special form.
- 22. Ensures Engineering personnel adhere to Hotel rules, relations operation schedule, correct use of tools and machinery and that the Engineering personnel are well disciplined, neat and well groomed. To enforce this, the Technical Manager must show good leadership, be punctual and fair in his judgement, supervises and guides his personnel for maximum efficiency in a pleasant and correct service minded Engineering surroundings. Give compliments, recommendations as well as reprimands when due according to the Hotel rules and regulations.
- 23. Directs execution of the Hotel safety programme including active assistance to other Department Heads in following up on safety in all parts of the Hotel operation. Regularly gives lectures in safety including safety complaint and makes safety aids available for training exercises.
- 24. Maintains a complete up to date file of "as built" drawings, specifications, manuals for buildings, grounds and all equipment contained within the Hotel property.
- 25. Maintains a complete up to date history of all fire equipment.
- 26. Operates and maintains fire detecting system throughout the Hotel ensuring proper functioning at all times.
- 27. Ensure proper operation and maintenance of the pneumatic mail system.
- 28. Ensure proper operation and maintenance of the Hotel sound system.
- 29. Ensure proper operation and maintenance of the pneumatic mail system.
- 30. Maintains the clock system ensuring correct time at all times.
- 31. Maintains all office equipment throughout the Hotel, on a realistic budget, reports mis-use to Department Head concerned.
- 32. Responsible for preparing yearly budgets for heat, light and power, repairs, maintenance and capital equipment, and improvement in co-ordination with the Controller.
- 33. Follows all other rules and regulations that may be issued by the General Manager or Resident Manager.
- 34. Submit reports to Group Technical Director on major breakdowns affecting operations, and dates and durations of scheduled and unscheduled power interruptions.





A-7.2 Assistant Technical Manager

Job Summary

Assists Technical Manager in carrying out his responsibilities and assumes responsibilities in Technical Manager's absence.

Authority

Has authority to take on the spot decisions to ensure smooth running of plant and machinery and to carry out Technical Manager's instructions and to ensure that maintenance programme and operation schedules and procedures are carried out.

Responsibilities

- a. Learn his and Technical Manager's job description.
- b. Assist Technical Manager in carrying out his responsibilities.
- c. Make inspections as necessary to ensure that Technical Manager's instructions are adhered to.
- d. Assume responsibility in Technical Manager's absence.
- e. Keep Technical Manager informed of all happenings in Department.
- f. Ensure that safety rules and regulations are complied with.
- g. Monitor spare parts/supplies
- h. Ensure correct timekeeping of Shift Engineers.
- i. Make sure that staffs are neat and clean.
- j. Attend meetings as assigned by Technical Manager.



A-7.3 Building Maintenance Head

Job Summary

Under supervision of Technical Manager.

As leader of the Civil Section, responsible for a proper maintenance of buildings both in and outside, including all masonry, woodworks, doors with hardware, windows, furniture, curtain rails, rails, fences in and outdoor gardens and plants.

Authority

Works closely with the Technical Manager to carry out responsibilities assigned him in accordance with established maintenance programme and operation schedule.

He has the authority to distribute among his crew assigned duties, schedule his crew and ask necessary assistance from Duty Engineers including call-up of additional available personnel if required in order to perform a smooth operation of his section and the Engineering Department.

Responsibilities

1. Is responsible for a correct execution of established maintenance programme for his section (assigned areas) mentioned above.
2. Is responsible for and do all necessary repairs and maintenance in his section, ensuring first class appearance maximum utilisation of hotel rooms, restaurants, and function rooms and minimum out of order/breakdowns.
3. Is responsible for preparing work schedule of assigned personnel.
4. Is responsible for distribution of repairs and maintenance work in his section.
5. Is responsible for writing on backside of Work Order assumed reason for breakdowns/replacements.
6. Is responsible for preparing monthly consumption report for his section.
7. Is responsible for giving daily personnel report to Administrator.



- 8. Is responsible for training of subordinates in their respective assigned jobs.
- 9. Is responsible for keeping Technical Manager informed of out of order rooms, inoperative equipment, progress of works, possible delays, job performance interest, discipline and discrepancies of his crew.
- 10. Is responsible for correct uniform and neatness of assigned personnel.
- 11. Is responsible for order and cleanliness throughout assigned areas.
- 12. Is responsible for keeping a close watch on spare parts/supplies required and advises Technical Manager beforehand to reorder in order to have at anytime expected replacement parts/supplies on hand.
- 13. Is responsible for ensuring that all safety rules and regulations are adhered to by assigned personnel.
- 14. Attends Engineering Staff meetings.
- 15. Follow all other instructions/rules and regulations that may be issued.

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A-7.4 Duty Engineer

Job Summary

Under supervision of Technical Manager/Assistant Technical Manager. As Duty Engineer, responsible for proper operation of physical plant and engineering facilities of entire hotel during shift. Directs and supervise his crew according to established policies and procedures.

Authority

Works closely with the Technical Manager/Assistant Technical Manager to carry out responsibilities assigned to him in accordance with established maintenance programme and operation schedule.

He has the authority to distribute among his crew, assigned duties, schedule his crew, and ask necessary assistance from other Duty Engineers including call-up of additional available personnel during shift if required, in order to perform a smooth operation of his section and the Engineering Department during shift.

Responsibilities

1. Is responsible for correct operation of physical plant and all engineering facilities of entire hotel during shift in accordance with established policies and procedures, maintenance programme and operation schedule.
2. Is responsible during shift as Duty Engineer for the Fire Fighting Squadron with all fire fighting equipment throughout the hotel according to
3. Is responsible for keeping accurate operating logs according to established policy and procedure.
4. Is responsible for correct execution of established maintenance programme for his section.
5. Is responsible for and do all necessary repairs in his section ensuring maximum utilisation and minimum breakdowns of assigned equipment.
6. Is responsible for preparing work schedule of assigned personnel.



- 7. Is responsible for distribute of repair and maintenance work in his section.
- 8. Is responsible for writing on backside of work order, assumed reason for breakdowns/replacements.
- 9. Is responsible for preparing monthly production and consumption report for his action.
- 10. Is responsible for training of subordinates in their respective assigned jobs.
- 11. Is responsible for giving daily personnel report to Programmer.
- 12. Is responsible for keeping Technical Manager/Assistant Technical Manager informed of inoperative equipment, progress of work, possible delays, job performance, interest, discipline and discrepancy of his crew.
- 13. Is responsible for correct uniform and neatness of assigned personnel.
- 14. Is responsible for keeping a close watch on spare parts/supplies required and advises Technical Manager/Assistant Technical Manager beforehand to reorder in order to have at anytime expected replacement of parts/supplies on hand.
- 15. Is responsible for order and cleanliness throughout assigned areas.
- 16. Is responsible for ensuring that all safety rules and regulations are adhered to by assigned personnel.
- 17. Attends Engineering Staff meetings.
- 18. Follows all other instruction/rules and regulations that may be issued.

Duty Engineers Must Ensure

- 1. To ensure his duty as follow:
 - a) All bleeps are checked at the beginning of his shift.
 - b) The sound system is checked every hour during his shift.
 - c) Emergency procedures are known by both himself and his crew.
 - d) Fire Squad are ready and know their duties.
 - e) All log sheets are completed accurately during his shift.
 - f) In the event of adjusting any of the A/C components in guest rooms, the appropriate form must be completed and sent to the Duty Manager. The component can be re-set when instructed by the Duty Manager, when the guest checks out.



- g) Whenever it is not possible to gain entry to room to affect works, he should immediately notify the Duty Manager and/or Housekeeper.
- h) If difficulties are experienced with any guest, the Duty Manager should be notified immediately.
- i) In the event of any equipment giving trouble which may affect the comfort of the guest, the Duty Manager and Technical Manager/Assistant Technical Manager must be notified immediately.
- j) If it is not possible to raise or lower the temperature in any guest room to meet the guests requirements, the Duty Manager and /or Housekeeper should be notified immediately.
- k) If it is found necessary to put a room 0-0-0 this must be coordinated through the Duty Manager.
- l) If it is found necessary to remove any piece of furniture or component from a guest room, advise the Duty Manager as he can consider it necessary to put the room 0-0-0.
- m) In the event of having to change light bulbs in the public areas during the day, the Duty Manager must be advised first.
- n) In the event of finding a D-N-D sign on a guest room door and work has to be carried out, contact the Duty Manager.

2. The Duty Engineer must submit monthly report on Preventive Maintenance.
3. The Duty Engineer must ensure that the night electrician checks all public areas for burnt out light bulbs.
4. The Duty Engineer must complete the log book accurately and pass on any information to next shift that may be required.
5. The Duty Engineer must complete and sign all stores requisitions for materials etc.
6. It is the responsibilities of the Duty Engineer to alternate any equipment which may be under his care i.e. boilers, pumps, calorifiers, water tanks, air compressors, chillers, etc., whichever is applicable to their shift.



7. All maintenance orders received in the Engineering Department during any one shift must (if possible) be completed before the end of the shift.
8. Each Duty Engineer is fully responsible for all spare parts applicable to the equipment he has to maintain. This means that he has to ensure that the correct stock level is maintained at all times.
9. The Duty Engineer is directly responsible to the Technical Manager, in his absence, the Assistant Technical Manager.
10. The Duty Engineer and all of his crew must be capable of removing trapped persons from lifts.

It is the responsibilities of the Duty Engineer to ensure that all his staff is familiar with these procedures.

11. All Duty Engineers must be completely familiar with all areas and equipment in the hotel, not just the areas they are responsible for from the maintenance aspect.
12. All Duty Engineers must know how to start and operate the emergency stand-by generator.
13. All duty Engineers must know how to set up sound equipment.
14. All Duty Engineers must know where all main and distribution panels are located.
15. All Duty Engineers must know where all fire valves are located and what areas they control.
16. All Duty Engineers must know how to operate the fire detection and alarm panel.





A.7.5 Foreman - Mechanical Section

Job Summary

Under supervision of Technical Manager/Assistant Technical Manager. As leader of the mechanical section, responsible for a proper operation and maintenance of all laundry equipment, kitchen equipment, all piping hot and cold water, drains both in and outdoors, sanitary fixtures, toilets, sinks, urinals, water coolers, ice machines, walk-in and reach-in refrigerators/freezer and air-conditioning plants and ventilating units. Directs and supervises his crew according to established policies and procedures.

Authority

Works closely with Technical Manager/Assistant Technical Manager to carry out responsibilities assigned him in accordance with established maintenance programme and operation schedule.

He has the authority to distribute among his crew assigned duties; schedule his crew and ask necessary assistance from Duty Engineers, including call-up of additional available personnel if required in order to perform a smooth operation of his section, and the engineering department during shift.

Responsibilities

- 1) Is responsible for correct operation and maintenance of all assigned equipment mentioned above.
- 2) Is responsible for correct operation of physical plant and all engineering facilities of entire hotel in accordance with established policies and procedures, maintenance programme and operation schedule.
- 3) Is responsible for keeping accurate operating logs according to established policy and procedure.



- 4) Is responsible for correct executive of established maintenance programme for his section.
- 5) Is responsible for and do all necessary repairs in his section ensuring maximum utilisation and minimum breakdowns of assigned equipment.
- 6) Is responsible for preparing work schedule of assigned personnel.
- 7) Is responsible for distribution of repairs and maintenance work in his section.
- 8) Is responsible for writing on backside of work order, assumed reason for breakdowns/replacements.
- 9) Is responsible for preparing monthly consumption report for his section.
- 10) Is responsible for giving daily personnel report to Programmer.
- 11) Is responsible for training of subordinates in their respective assigned jobs.
- 12) Is responsible for keeping Technical Manager/Assistant Technical Manager informed of inoperative equipment, progress of work, possible delay, job performance, interest, discipline and discrepancy of his crew.
- 13) Is responsible for correct uniform and neatness of assigned personnel.
- 14) Is responsible for order and cleanliness throughout the assigned areas.
- 15) Is responsible for keeping a close watch on spare parts/supplies required and advises Technical Manager beforehand to reorder in order to have at any time, expected replacement parts/supplies on hand.
- 16) Is responsible for ensuring that all safety rules and regulations are adhered to by assigned personnel.
- 17) Attends Engineering Staff meetings.
- 18) Follow all other instructions/rules and regulations that may be issued.





A.7.6 **Foreman - Electrical Section**

Job Summary

Under supervision of Technical Manager/Assistant Technical Manager. As leader of the electrical section, responsible for proper operation and maintenance of all high tension transformers with switchgears, panel, wiring, meters, all low tension transformers with switchgears, panel, wiring, meters, in and outdoor light-fixtures, switches, outlets, terminals, electrical motors, lightening arrester, automatic doors, electrical part of kitchen, electrical part of housekeeping and laundry equipment, automatic controls in and outside, elevators, spotlights, telephone system with switch-boards and exchangers, fire detecting and alarm system, sound system, clock system, radio transceiver, film projectors, tape recorder, record players, radio, televisions, car calling system, room boy calling system, room boy indicator system, public address system, paging system, waiters call system.

Authority

Works closely with the Technical Manager/Assistant Technical Manager to carry out responsibilities assigned to him in accordance with established maintenance programme and operation schedule.

He has the authority to distribute among his crew assigned duties, schedule his crew and ask necessary assistance from Duty Engineers including call-up of additional available personnel if required in order to perform a smooth operating of his section and the engineering department during shift.

Responsibilities

1. Is responsible for correct operation and maintenance of assigned equipment mentioned above.
2. Is responsible for correct execution of established maintenance programme for his section.
3. Is responsible for and do all necessary repairs in his section ensuring maximum utilisation and minimum breakdown of equipments.



- 4. Is responsible for correct operation of physical plant and all engineering facilities of entire hotel during shift in accordance with established policies and procedures, maintenance programme and operation schedule.
- 5. Is responsible for keeping accurate operating logs according to established policy and procedure.
- 6. Is responsible for preparing work schedule of assigned personnel.
- 7. Is responsible for distributing repair and maintenance work in his section.
- 8. Is responsible for writing on backside of work order assumed reason for breakdowns/replacements.
- 9. Is responsible for preparing monthly consumption report for his section.
- 10. Is responsible for giving daily personnel report to Administrator.
- 11. Is responsible for training of subordinates in their assigned jobs.
- 12. Is responsible for keeping Technical Manager/Assistant Technical Manager informed of inoperative equipment, progress of works, possible delays, job performance, interest, discipline and discrepancy of his crew.
- 13. Is responsible for correct uniform and neatness of assigned personnel.
- 14. Is responsible for order and cleanliness throughout assigned areas.
- 15. Is responsible for keeping a close watch on spare parts/supplies required and advises Technical Manager/Assistant Technical Manager beforehand to reorder in order to have at anytime, expected replacement parts/supplies on hand.
- 16. Is responsible for ensuring that all safety rules and regulations are adhered to by assigned personnel.
- 17. Attends Engineering Staff meetings.
- 18. Follow all other instructions/rules and regulations that may be issued.

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A.7.7 **Foreman - Gardening Section7**

Job Summary

Under supervision of Building Supervisor.

Responsible for proper maintenance of all outdoor lawns, trees, shrubs, plants, roads, walkways, parking areas, roof top gardens, all indoor plants and gardens.

Directs and supervise his crew according to establish policies and procedures.

Authority

Work closely with the Building Supervisor to carry out responsibilities assigned him in accordance with established maintenance programme and operation schedule. He has the authority to distribute among his crew assigned duties; schedule his crew and ask necessary assistance from Duty Engineers, including call-up of additional available personnel if required in order to perform a smooth operation of his section, and the engineering department during shift.

Responsibilities

1. Is responsible for correct execution of maintenance programme for his section.
2. Is responsible for maintaining a long and a short term planting programme.
3. Is responsible for doing all necessary replacement of trees/shrubs/plants/grass to ensure a beautiful garden free of disease, blight and pests.
4. Is responsible for proper operation and maintenance of equipment/tools assigned.
5. Is responsible for preparing work schedule of assigned personnel.
6. Is responsible for distributing maintenance work in his section.



7. Is responsible for writing on back-side of work order assumed reason for replacement.
8. Is responsible for preparing monthly consumption report for his section.
9. Is responsible for giving daily personnel report to Programmer.
10. Is responsible for training of subordinates in their respective assigned jobs.
11. Is responsible for keeping Building Supervisor informed of possible bad appearances, progress, possible delays, job performance, interest, discipline and discrepancy of his crew.
12. Is responsible for correct uniform and neatness of assigned personnel.
13. Is responsible for keeping accurate operating records to established policies and procedures.
14. Is responsible for order and cleanliness throughout assigned areas.
15. Is responsible for keeping a close watch on supplies required and advises Building Supervisor beforehand to reorder in order to have at anytime supplies required on hand.
16. Is responsible for ensuring that all safety rules and regulations are adhered to by assigned personnel.
17. Attends Engineering Staff meeting.
18. Follow all other instructions/rules and regulation that may be issued.

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A.7.8 Plant Technician

Duties

Reports to Duty Engineer.

Responsibilities

Operates and maintains steam boilers, A.C. compressors, pressure vessels, receivers and auxiliary feed water pumps and pipelines.

Trade Skills

1. Test and adjust refrigerant controls such as expansion valves, thermostats, pressure-stats as well as checking of such components as evaporator coils, condenser, and heat-exchangers.
2. Clean and evacuate, de-hydrate, charge and start up refrigerating system.
3. Detect and rectify faults.
4. Start refrigerating systems, observe the operation, read gauges and instruments and adjust mechanism.
5. Carry out periodic cleaning, oiling, de-rusting, re-painting and maintenance work.
6. The operation of stop valves and drain valves with particular reference to the danger arising from water hammer action.
7. Methods used to verify the indications of a water gauge.
8. Methods of controlling boiler water composition. Test required and typical figures of boiler water. Methods of sampling water and interpretation of result. Application of routing treatment. Effects of scale, corrosion, deposits, pitting and encrustation on boiler surfaces.
9. Care and maintenance of furnace refractor.
10. Action to take in the event of abnormal conditions arising in a boiler.
11. Routine operation and maintenance to prevent excessive deposits of soot or moisture in air heaters, economizers and boilers.
12. Preparation required before putting back into service a boiler following water side and fire side cleaning or repairs.
13. Precautions to be taken with combustible material. The dangers of oil leakage from tanks and other appliances, particular in unventilated places.



14. Method of operating the fire fighting arrangements, appliances and equipment normally available in a machine room, and the use of other resources in fighting fires which may occur in a machine room, air heater, uptake or furnace fronts. Why and under what circumstances should different types of fire extinguishing appliances to be used.

Qualifications

Must have the necessary qualifications and experience to satisfy the Government Examination Board for the issuance of a Certificate, and hold a current certificate.

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A.7.9 Mechanic

Job Level

Craftsman

Job Description

Under supervision of respective Foreman

Responsible for doing all maintenance, repair, replacement work assigned in the best possible safe and technical practice speedy and skilfully.

Authority

Works closely with the Foreman to carry out all duties assigned to him in accordance with established policies and procedures and the operation schedule.

Responsibilities

1. Responsible for doing all work assigned in a good, safe and speedy engineering methods/manner.
2. Responsible for recording accurately time used on work order.
3. Responsible for recording accurately spares/supplies used on work order.
4. Responsible for getting receipt of work completed on work order.
5. Responsible for writing on work order assumed reason for breakdown/replacement.
6. Responsible for reporting all findings discrepancies observed/noted during work to Foreman.
7. Responsible for obtaining proper information/instruction/clarification to perform work/duties assigned. Under no circumstances must work be started without, as bigger damage and a more costly repair may be the result.
8. Responsible for returning used/replaced parts/items to the engineering store.
9. Responsible for maintaining all assigned borrowed tools/equipment in spotless condition at all times.
10. Responsible for order and cleanliness of working place assigned.



11. When working in guest areas particular attention must be paid to noise that may disturb the guests, cleanliness of uniform, grooming and always behave as a diligent, honest, polite employee dutifully, smile!

12. Adheres to all safety practice, safety rules and regulations.
13. Follows all other instructions/rules and regulations that may be issued.

Trade Skill

Ability to:

1. Use and take care of common fitting tools such as files, hacksaws, taps and dies, portable drills, marking out tools such as straight edges, surface plates and callipers, and measuring instruments such as micrometers, vernier callipers, dial gauges.
2. Read and interpret engineering drawings and specifications.
3. Carry out general fitting work.
4. Mark out sheet metal, machined parts and castings.
5. Carry out simple sheet metal work such as cutting, bending, folding, rolling and seaming using hand or machine tools.
6. Solder, braze and carry out simple electric arc and oxy-acetylene welding.
7. Carry out simple pipe work such as bending, threading and jointing.
8. Identify and heat treat (i.e. harden, temper, anneal, etc.) common engineering materials.
9. Carry out simple electrical work such as simple cable jointing, insulating electrical connections and changing fuses.
10. Install, maintain, repair and service machinery used in the hotel industry in a planned and orderly manner.
11. Use machine tools such as drilling machines, shapers, lathes, milling machines, surface grinders.
12. Sharpen hand tools, drills and single point tools.
13. Take safety precautions relating to all the above operations.

Trade Theory



Knowledge of:

1. Workshop calculations - including conversion of measurements from British to metric system, machine speeds and feeds, simple geometry and trigonometry, menstruation, graphs.
2. Engineering drawing:
 - a. First angle, third angle and isometric projections;
 - b. Free hand sketching;
 - c. Surface finish, tolerances, limits and fits;
 - d. British and metric system.
3. Engineering science - simple mechanics, heat and basic electricity.
4. Workshop technology - simple metrology and machine tools, engineering materials and their heat treatment.
5. Safety precautions:
 - a. Relevant sections of the Factories and Industrial Undertakings Ordinance;
 - b. Safe tool handling and work behaviour;
 - c. Use of machine guards;
 - d. Danger of compressed air, electricity, chemicals and noxious fumes;
 - e. First aid;
 - f. The necessary for clean work spaces and gangways.

Training

A. Type:

3 to 4 year organised craft apprenticeship, preferable with the first year in a one-year full-time mechanical engineering craft course in an institution of technical education.



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A.7.10 Plumber

Job Level

Craftsman

Job Description

Assembles, installs, repairs and maintains pipes, fittings, sanitary fixtures, cold, hot and flush water systems, soil, waste and rain water pipes in a safe, efficient and economical manner, employing such skills and knowledge as may be required.

Job Summary

Under supervision job respective Foreman.

Responsible for doing all maintenance, repair, replacement work assigned in the best possible safe and technical practice speedy and skilfully.

Authority

Works closely with the Foreman to carry out all duties assigned to him in accordance with established policies and procedures and the operation schedule.



He has the authority by presenting approved work order to request, necessary spare parts and supplies from the engineering store in order to carry out assigned duties.

Responsibilities

1. Responsible for doing all work assigned in a good, safe and speedy engineering methods/manner.
2. Responsible for recording accurately time used on work order.
3. Responsible for recording accurately spares/supplies used on work order.
4. Responsible for getting receipt of work completed on work order.
5. Responsible for writing on backside of work order assumed reason for breakdown/replacement.
6. Responsible for reporting all findings discrepancies observed/noted during work to Foreman.
7. Responsible for obtaining proper information/ instruction/clarification to perform work/duties assigned. Under no circumstances must work be started without, as bigger damage and a more costly repair may be the result.
8. Responsible for returning used/replace parts/ items to the engineering store.
9. Responsible for maintaining all assigned/borrowed tools/equipment in a spotless condition at all times.
10. Responsible for order and cleanliness of working place assigned.
11. When working in guest areas particular attention must be paid to noise that may disturb the guests, cleanliness of uniform, grooming and always behave as a diligent, honest, polite employee dutifully, smile!
12. Adheres to all safety practice, safety rules and regulations.
13. Follows all other instructions/rules and regulations that may be issued.

Trade Skill

A. Ability to:



1. Use and take care of common tools used in plumbing work such as hammers, screw drivers, wrenches, saws, chisels, files, hand shears and snips, hand and power drills, grinders, reamers, dies.
2. Use and take care of measuring tools, such as rulers and tapes, builder's levels, callipers and micrometers, squares and straight edges, hand levels and plumb bobs.
3. Mark positions and levels; leave chases and form holes; insert pipe sleeves; measure and cut pipes to correct sizes.
4. Read and interpret working drawings relating to plumbing installation, e.g. architect's drawings, plumbing diagrams, roughing-in diagrams of all equipment and sanitary fittings.
5. Carry out jointing by the following methods; soldering, brazing and welding (gas and arc), threading, and compression and flanged joints.
6. Carrying out lead burning and forming (sheet and pipe), joint wiping.
7. Bend pipes, mild steel up to 2" diameter and copper of standard gauge up to 1 - 1/2" diameter, and sheet metal by any recognised workshop method.
8. Install, service and repair rain water systems, waste systems and soil systems, including the stacks, branches, fittings, fixtures and other equipment.
9. Install, service and repair various types of pumps, pressure tank systems, pump and sump systems.
10. Install pipes of various materials used in the building trades, various types of control valves and pipes fittings.
11. Install, service and repair cold water supply systems for direct and indirect supplies, and distribution mains, including pipes and fittings, control valves, pumps and sumps, water waste preventers, warning and over-flow pipes.
12. Install, service and repair hot water supply systems, both central boiler systems and individual supply, including cold water feed and hot water supply and expansion pipes, control valves, insulation, boilers and ancillary equipment, electric water heaters and geysers.
13. Install, service and repair flush water systems including connections to supply and draw-off points, pumps and sumps, fittings and control valves.



- 14. Install fire service pipes, control valves linking Fire Service Inlet Box to the various fire fighting equipment; fire service pumps; sprinkler systems, fire hydrants, hose reels and fire extinguishers.
- 15. Install gas pipes and fittings; pressure gauges; incandescent and other burners.
- 16. Install, service and repair sanitary fixtures and fittings for domestic, school and office buildings, and hospital and other institutional buildings.
- 17. Carry out hydraulic pressure, air pressure, smoke and chemical tests (e.g. on drains and soil pipes) as required by plumbing regulations and architects' instructions.
- 18. Maintain entire plumbing installation to ensure satisfactory working conditions including checking for leakages, replacing worn out parts and effecting other necessary repairs.
- 19. Take safety precautions related to all the jobs described above, apply first aid.

B. Desirable:

Ability to install chilled water and desalination systems; chemical feeders and water softeners.

Trade Theory

Knowledge of:

A. Plumbing Theory and Drawings:

- 1. Uses of common plumbers' tools.
- 2. Uses of lead, copper, steel, iron, tin and zinc in plumber's work.
- 3. Methods of jointing different kinds of pipes and fittings used in plumbers' work including soldering, brazing, bronze welding, gas and arc welding; fluxes.
- 4. Methods of bending hard and soft metal pipes.
- 5. Sanitary fixtures used in domestic, school, hotel and office buildings; separate and combines (one-pipe or single stack) systems; waste, soil



and ventilating pipes, their connection to and from drains; layout, construction, and principles of simple drainage schemes.

6. Drainage fittings for cast-iron, pitch fibre and stoneware drains; sizes, gradients, ventilation and testing of drains.
7. Simple cold water supply systems for domestic and trade purpose.
8. Simple hot water supply systems for central and individual supply.
9. Sources of water supply; properties of water from wells; storage treatment and distribution; pollution.
10. Simple flush water supply system.
11. Special systems, e.g. desalination and chilled water systems.
12. Line diagrams of pipe installation, orthographic and isometric projections.

B. Workshop Calculations:

Elementary geometry and its application in connection with plumbing, mensuration, elementary algebra; logarithms and indices; graphs, straight line laws, interpolation and elementary trigonometry.

C. Science for Plumbers:

1. Mechanical principles involved in the use of levels and pulley blocks.
2. Pressure, temperature and heat, and their measurements; boiling points of liquids.
3. Physical properties of metallic and non-metallic materials used in plumbing such as tensile strengths, elasticity and plasticity, melting points of metal alloys.
4. Effects of heat on metals and non-metallic materials, expansion and contraction, heat treatment of metals.
5. Elementary hydraulics relevant to the trade.
6. Convection currents, application to the hot water system; insulation against heat loss.
7. Composition of air and water; combustion and oxidation;
8. Hard and soft water; effects on pipes and boilers; elementary water treatment for domestic and industrial purposes.



9. Elementary electricity; Ohm's Law and electrical units; heating value; elementary wiring diagram.

D. Plumbing Regulations and Safety:

1. Working knowledge of local plumbing regulations as well as those regulations of the other building trades, relating to plumb.
2. Safety precautions against dangers arising from use of dangerous gases and materials.

Training

A. Type

3 - 4 year organised craft apprenticeship, preferably with the first year in a one-year full-time plumbing and pipe-fitting craft (apprenticeship) course, with attendance at a relevant part-time day-release or evening craft course in an institution of technical education.

* * * * *



A-7.11 Electrician

Job Level

Craftsman

Job Description

Carries out electrical repairs and maintenance to equipment and facilities and any other duties as assigned to him.

Job Summary

Under supervision of respective supervisor.

Responsible for doing all maintenance, repair, replacement work assigned in the best possible safe and technical practice speedy and skilfully.

Authority

Works closely with the foreman/supervisor to carry out all duties assigned to him in according with established policies and procedures and the operations schedule.

Responsibilities

1. Responsible for doing all work assigned in a good, safe and speedy engineering methods/manner.
2. Responsible for recording accurately time used on work order.
3. Responsible for recording accurately spares/ supplies used on work order.
4. Responsible for getting receipt of work completed on work order.
5. Responsible for writing on work order assumed reason for breakdown/replacement.



- 6. Responsible for reporting all findings discrepancies observed/noted during work to supervisor.
- 7. Responsible for obtaining proper information/instruction/clarification to perform work/duties assigned. Under no circumstances must work be started without, as more damage and a more costly repair may be the result.
- 8. Responsible for returning used/replaced parts/items to the engineering store.
- 9. Responsible for maintaining all assigned/borrowed tools/equipment in spotless condition at all times.
- 10. Responsible for order and cleanliness of working place assigned.
- 11. When working in guest areas particular attention must be paid to noise that may disturb the guests, cleanliness of uniform, grooming and always behave as a diligent, honest, polite employee dutifully. Smile!
- 12. Adheres to all safety practice, safety rules, and regulations.
- 13. Follows all other instructions/rules and regulations that may be issued.

Trade Skill

Ability to:

- 1. Use and take care of tools.
- 2. Read and interpret electrical circuit diagrams and drawings and specifications.
- 3. Read and interpret architectural drawings and sketch simple electrical drawings specifying the proper size of wires, conduits, switches, panels, distribution fuse boxes etc.
- 4. Install electrical wirings, switchboards, distribution panels, domestic appliances, kitchen equipment, laundry equipment and all other electrical equipment in a hotel complex.
- 5. Strip, splice, joint, solder and braze electric wires and cables.
- 6. Carry out fault finding and repair electrical installations and electrical equipment such as electric appliances, kitchen equipment, laundry equipment, pump motors, etc. and rewind armatures when necessary.
- 7. Use and take care of testing instruments such as test lamps, ammeters, voltmeters, ohmeters, megger testers etc.
- 8. Cut, bend, join and thread electrical conduit or pipings of various materials e.g. iron, copper, PVC etc.
- 9. Apply safety practices including:



- a. Ensuring tools and equipment are in good order before use.
- b. Recognising accident hazards and take preventive action.
- c. Treatment for electric shock including artificial respiration and basic first aid.

10. Advantage to have knowledge of installing, maintaining and repairing air conditioning plants, lifts, escalators, PABX equipment, etc.

Trade Theory

- 1. Workshop calculations including:
 - Fractions, decimals, and metric conversions, simple geometry.
- 2. Electrical drawing.
- 3. Electrical science:
 - a) ac and dc circuit
 - b) resistance-Ohm's Law, series and parallel circuits.
 - c) earthlings systems
 - d) batteries
 - e) relays and contactors
 - f) transformers
 - g) principles of ac and dc meters, operations, maintenance and control
 - h) commutators
 - i) starters, regulators, etc.
 - j) chokes and capacitors, fluorescent lamps.
 - k) power factors and improvement equipment.
 - l) thermostats.
- 4. Safety:
 - a) safety precautions in workshops.
 - b) rules and regulations for electrical installations and/or machinery.
- 5. Working requirements of wiring materials for jobs.
- 6. Reporting of test results on installations and equipment.
- 7. Meter re-winding.



Training

A. Type:

3 to 4 year organised craft apprenticeship, preferably with the first year in a one-year full-time electrical engineering craft (apprenticeship) course with attendance at a relevant part-time day-release or evening craft course in an institution of technical education.



A.7.12 Carpenter

Job Level

Craftsman

Job Description

Carries out all internal and external woodwork other than framework using both hand tools and woodworking machinery.

Trade Skill

Ability to:

1. Use and take care of all hand tools including power hand tools.
2. Use and take care of woodworking machines such as circular saws, planning machines, band saws, mortise and tenoning machines, spindle moulders, lathes.
3. Interpret scale drawings, especially large scale details.
4. Set up for hand and repetitive machine work, use patterns and marking jigs and prepare cutting lists.
5. Shape timber by sawing, planning and chiselling; and make joints commonly found in carpentry and joinery by hand and/or by machines.
6. Classify and select timber; use adhesives and glues.
7. Make doors and frames, grounds, skirting and architraves by hand and machine methods.
8. Fix frames in walls.
9. Hang and fit doors and gates.
10. Fit locks, latches and furniture's.



- 11. Make and fix window boards and cover mould.
- 12. Lay floor boards to various sub-floors.
- 13. Make all kinds of fitments in both domestic and non-domestic buildings, including cupboard, tables, drawers, working surfaces etc.
- 14. Undertake drawer dovetailing, fixing and edging of laminated plastic sheets.
- 15. Make and fix wall panels.
- 16. Prepare surfaces for painting, polishing and spraying.
- 17. Erect strike and maintain timber shores as raking, flying and dead.

Trade Theory

Knowledge of:

- 1. Hand and machine woodworking tools, and methods of sharpening and setting; measuring, setting-out and testing prepared wood members and complete framing; use of plumb rule and level; safety precautions and regulations.
- 2. Characteristics of timber commonly used in carpentry and joinery; conversion and seasoning of timber; effect of moisture of timber; market sizes and common defects; detection and prevention of dry rot; timber for constructional and decorative purposes; veneers, plywood's and other built-up boards.
- 3. Methods of joining wood members by nails, dowels, screws, bolts, wedges and glues; joints such as housing, halving, bridle, mortise and tenon, trenching, mitring, and scribing; methods of fixing woodwork to brickwork, block work and concrete and fixing blocks wood grounds and wall plugs.
- 4. Construction of doors and frames; vattened, panelled, glazed and flush doors; iron-mongery and door furniture.
- 5. Use of machined materials such as strip, block and parquet; floor boarding.
- 6. Methods of shoring dangerous buildings liable to become dangerous, erecting, striking and maintenance of raking, flying and dead shores.
- 7. Construction internal fittings such cupboard and drawers, counters and office fittings, kitchen fitments; methods of secret fixing.



- 8. Treatment of entrances and vestibules; panelling to walls and beams etc.; shop front and showcase construction.
- 9. The planning and organisation of joinery workshop; construction of temporary offices in building sites; methods of preparing quantities for woodwork, measuring complete work.

Training

A. Type:

3 to 4 year organised craft apprenticeship, preferably with the first year in a one-year full time carpentry, joinery and cabinet making craft (apprenticeship) course, with attendance at a relevant part-time day-release or evening craft course in an institution of technical education.

* * * * *



A-7.13 Maintenance Programmer

Job Summary

Under supervision of Technical Manager/Assistant Technical Manager to carry out responsibilities assigned him in accordance with established hotel policies and procedures and operation schedules.

He has the authority to distribute work orders, banquet bulletins, function orders, makes priorities and ask necessary assistance from Assistant Technical Manager and Duty Engineers in order to perform a smooth operation of his section.

Responsibilities

1. Responsible for receiving, recording and distributing work orders, banquet bulletins, functions orders, and make necessary priorities, project orders to be forwarded direct to Technical Manager.
2. Make records and gives daily personnel report before 9:00 a.m.
3. Is responsible for work schedule and coordinates.
4. Is responsible for receiving operator's log reports from Duty Engineers, give possible comments and forward to Technical Manager.
5. Is responsible for receiving consumption reports from Foremen and Duty Engineers and prepare statistics.
6. Is responsible for keeping complete set of structural/mechanical/architectural/electrical/ventilation/plumbing/fu



rniture/drawing as well as paint scheme of entire hotel with physical plant.

7. Is responsible for all information service/announcements for engineering employees.
8. Is responsible for keeping Technical Manager informed without delay of progress, reports, functions and complaints.
9. Is responsible for informing/requesting all extra meal for employees/working overtime in addition to schedule Engineering employees.
10. Is responsible for keeping equipment history file up to date.
11. Is responsible for order and cleanliness through-out assigned area.
12. Is responsible for preparing (and attending) Engineering Staff meetings.
13. Follows all other orders, instructions, rules and regulations that may be issued.

* * * * *



A-7.14 Secretary

Job Summary

Under supervision of Technical Manager. Responsible for operation and administration of Technical Manager's office.

Authority

Works with the Technical Manager to carry out responsibilities as assigned to her and in accordance with established policies and procedures.

Responsibilities

1. Directs and coordinates the office administration according to Technical Manager's instructions and hotel policies and procedures.
2. Receives all incoming correspondence, date stamp, signs and submit to Technical Manager.
3. Takes dictations, types all correspondence etc. and send out.
4. Prepares monthly utility report for submission to Hong Kong.
5. Keeps files in order and up to date.
6. Make weekly requisitions for office supplies.
7. Receives and answers telephone calls and guests of Technical Manager.
8. Keep Technical Manager's office and desk tidy.
9. Advises and reminds Technical Manager of appointments.
10. Responsible for recording and submitting Engineering Personnel's daily time sheets to Personnel Department.

* * * *



A-7.15 Painter

Job Level

Craftsman

Job Description

Maintains a high standard of finish to all painted surfaces of the Hotel both interior and exterior.

Trade Skill

Ability to:

1. Properly preparing walls for papering and hanging wallpaper.
2. Properly preparing walls and surfaces for painting.
3. Painting woodwork and plaster work.
4. Preparing surfaces for tiling.
5. Cutting and fixing tiles.
6. Fitting and fixing carpets.
7. Keeping work areas clean and tidy.
8. French polishing.
9. Use spray painting equipment.
10. Keeping tools and equipment in good condition.
11. To learn fire and safety procedures.
12. Maintains a very high standard of cleanliness in the paint shop due to the presence of flammable materials.

Trade Theory

1. Be familiar with methods of painting, mixing of paints and surface preparing before painting.
2. Knowledge of sign writing preferable.



Training

A. Type:

Attending at organised trade school with subsequent experience of approximately 5 years.

* * * * *



A.7.16 Utility Man

Job Level

General Assistant

Job Description

1. Assists technicians in the various fields and as assigned by supervisor.
2. Learns fire and safety procedures.
3. Cleaning of work areas.

* * * * *



SECTION A - 8

A-8.1 General

The administration function of the engineering office is obviously related to the size of the Hotel and the size of the technical staff.

Regardless of size, responsibilities include:

A-8.1.1 Prompt Telephone Answering

In the Group hotels the engineering office is normally manned at all times during office hours by either a secretary or a maintenance programmer. During times when the office is not manned then incoming messages must be routed to Duty/Shift Engineers via a paging system. It is therefore essential that Duty/Shift Engineers be provided with paging facilities.

A-8.1.2 Communication with GM' Office

This is always through the Technical Manager. All communication must go through the Technical Manager who will then pass it on if he thinks necessary.

The General Manager's office should always be notified of any unusual occurrences or emergencies which may endanger the comfort or safety of guests or staff.



A-8.2

Record Keeping and Filing

A-8.2.1 Records

Repairs & Maintenance:

Work Orders

Telephone Job Order

Preventive Maintenance Schedule

Fire Incidence Report Log

Projects:

New Project Control

Heat light & power:

All Engineering Logs

Utility Consumption Records

Water Treatment





Correspondence & Memorandums

Equipment Record Card Files

Technical data including catalogues, operation and maintenance manual, spare parts catalogues.

Drawings and Specifications

Key Cabinet

A-8.2.2 Filing

Label files properly on the front cover and put in a file pocket, clearly type out the index strip/card of the file pocket, put it together with other file pockets of the same category into the filing cabinet in alphabetical order, dividers with bold print of the name of the subject should be placed in appropriate positions to separate files into different categories.

Make out a filing list and update it from time to time. All persons allowed access to the files should be briefed on how to locate a file with the help of the filing list.

Box files could be used for files such as master file for outgoing correspondence, B.I., P.O., invoices, work orders etc.

Drawings must always be recorded and filed in drawing cabinet.

Any movement or amendments on drawings should be recorded.



A Sample Filing List

(At initial stage of commissioning)

A. Project/Progress Meeting

B. Handover

- 1) Procedures
- 2) Schedule
- 3) Guest Room Handover
- 4) M & E Systems Handover
- 5) etc.
- 6) etc.

C. Defects

- 1) Defects Lists
- 2) Rectifications

(When technical department is set up and in full operation)



A. Accounts

1. Budgets
2. Action Plan
3. Quotations
4. Budget Inquiries
5. Purchase Orders
6. Invoices

(Note: These files could be arranged either in alphabetical order or in sequence of actions/procedures)

B. Administration

1. House Rules
2. Management Circular
3. Operations Instructions



C. Commercial Section

1. Shopping Arcade
2. Shops

D. F & B Outlets

1. Restaurant
2. etc.

E. Meeting & Minutes

1. Department Head Meeting
2. Energy Conservating Meeting
3. Engineering Meeting
4. etc.



F. Personnel

1. Job Evaluation
2. Leave Record
3. Salaries
4. Shift Schedule/Overtime Record
5. Staff Committee
6. Staff Record
7. etc.

G. Projects

1. Lobby Redecoration
2. Rooms Renovation
3. Window Replacement
4. etc.



H. Procedures

1. Bomb Threat
2. Emergency
3. Fire Prevention
4. Typhoon Prevention
5. Water Restriction

I. Records

1. Agreement & Contract
2. Certificate & Licences
3. Daily Work Orders
4. Equipment Record Cards
5. Telephoned Work Orders

J. Reports

1. Fire Report
2. Monthly Report to Management
3. Monthly Report to GTM
4. Misc.



K. Technical

1. A/C Plant
2. Boiler Plant
3. Cold Rooms & Refrigeration
4. Electrical
5. Fire Services
6. Furniture, Fixtures & Fittings
7. Gas
8. Keys & Locks
9. Kitchen
10. Laundry
11. Lifts
12. Main Switch room
13. PABX
14. Paging System
15. Plumbing System
16. TV & Sound Systems



17. Water Treatment

18. etc.

L. Utilities

1. Monthly Utility Reports
2. Temperature Records
3. Utilities Bills
4. Utilities Consumptions
 - a) Electricity
 - b) Fuel oil
 - c) Gas
 - d) Water

NOTE: There should also be a Master File to keep all outgoing correspondence copies.



A-8.3

Drawings

Drawing must be kept updated and it is essential that a set of sepias are kept. Each time existing installations or building layouts are modified or additional equipment is added a print should be made of the existing condition and the sepia then updated.

This is essential so that there is always a record drawing of the present building and system configuration.

The date and extent of the modifications must be recorded.

* * * * *



SECTION A - 9

BUDGETS

A-9.1

General

At the time of preparing the budget, inventory, replacement and new additions must be considered.

Technical Managers should keep a file of 'possible budget items.' During normal operations, certain items come from time to time which can be added to the file and reviewed at budget preparation time. Items not normally covered under repairs and maintenance (R & M) budgets include:

1. Capital improvement
2. Replacement of obsolete or non-repairable items
3. Replacement of equipment where repairs have become so costly that it is cheaper to replace than continue to repair.



4. Items of new equipment to be installed to lower maintenance or HL & P expenses. A copy of the initial recommendations under these categories should be sent to the Group Technical Manager for review. Each item should have some indication why it is included.

The Technical Manager and the General Manager should review all items proposed by the Technical Manager. Where there may be differences of opinion regarding the inclusion of certain items, the Technical Manager is advised to note in writing to the General Manager, copied to Group Technical Manager, why he feels the item should not be omitted and the reasons.

* * * * *



SECTION B-1

B-1.1. General

A specific plan should be established and published and should include instruction to employees on what action is to be taken in case of fire. It should include fire brigade set-up, fire brigade equipment special instructions etc.

Drills should be conducted at least once a month and even more frequently in localities where local fire departments are not considered up to international standards of efficiency.

B-1.2 System

Insert a description of the fire protection systems in your own property.



B-1.3 Instruction Manual

Insert a copy of your property fire and safety manual.

B-1.4 Report of Fires

After a fire or similar emergency the following report procedure should be observed.

- a) List the nature and extent of all injuries sustained or reported by guests of employees.
- b) An appraisal is to be made immediately with the engineer, housekeeper, or any other concerned parties who could contribute to the appraisal, to determine the extent of damage.

The appraisal should include, but not necessary be limited to:

- i. The replacement of carpeting or flooring, furniture, coverings, drapes, bedding, etc.
- ii. The costs of repainting the entire area.
- iii. Possible water or smoke damage to areas below and above the fire location should be included in the restoration figure.



iv. A report should be filed immediately with the insurance representative who will include the above information. No repair work should be started until a tentative agreement for recovery is reached with the insurance company.

c) A copy of the above report should be sent to the Group Technical Director followed by a copy of the agreement of settlement with the insurance company when affected.

B-1.5 Fire Hazard Abatement Notice

The most frequent offences to fire safety in properties are caused by:

- a. obstruction usually partially - to fire exit doors, staircase landings and smoke lobbies.
- b. obstruction to fire extinguishers, hose reels and break glass alarm call points.
- c. rubbish lying around or not being cleared away in the correct manner.

The cause, all too often, is lack of control and discipline in your property I recommend the adoption of the following system:

A senior member or members of management be appointed and delegated to issue 'in-house' "FIRE HAZARD ABATEMENT NOTICES" to department heads under whose jurisdiction the fire hazard has occurred. Those notices should consist of numbered pads with forms, similar to the sample attached



FS-1, in triplicate. The original is issued to the responsible department head with one copy to the General Manager and one copy filed for record.

Within a certain period of grace time as specified on the notice, if the hazard has not been corrected, a reminder is to be issued. Upon receipt and recording of a reminder notice, the responsible department head is required to submit a written explanation to the General Manager as to why no action has been taken.

If a department records excessive notices (determined by the General Manager) then disciplinary action can be taken.

The advantages of introducing such system are:

- a. A means to communicate to staff of managerial and supervisory level that they are responsible for the execution of safety policies.
- b. An indication to staff that management is seriously determined to maintain high fire and safety standards.
- c. An assurance to management that staff will be disciplined for failing to observe fire and safety rules.
- d. A visual display to any person using the property that fire and safety rules and regulations are being maintained.



FORM

FS-

1

No.....

Property:_____

Fire Hazard Abatement Notice

From:_____

To:_____ (Head of Department)

Date:_____ Time:_____

Description of Fire Hazard



Location

The location mentioned above is within your department's area of operation. You are requested to clear the fire hazard within the period specified below for the safety of all guest and staff.

The fire hazard is to be cleared before _____

Signature of Issuer

1st / Reminder Notice



cc General Manager



EMERGENCY TELEPHONE NUMBERS:

Police

Fire

Ambulance



Telephone Security Department



SECTION B - 2

B-2.1 Foreword

Bombing and the threat of bombing have created a need for practical knowledge to cope with the increasingly violent activities of people who represent segments of unrest in our society. Repeated criminal acts which use or threaten to use explosives against educational institutions, industry, law enforcement and the general public, place a most urgent responsibility that cannot be delegated to law enforcement alone. Every citizen must be prepared to accept responsibility if we are to enjoy a safe place in which to live and work.

One suggestion in this section should be emphasised; it is preparedness. When one is equipped with an organised plan, most bomb threat problems can be resolved with minimal personal injury and property damage.

B-2.2 Purpose of Calls

The only two reasonable explanations for a call reporting that a bomb is to go off in a particular installation are:

1. The caller has definite knowledge or believes that an explosive or incendiary has been or will be placed and he wants to minimize personal



injury or property damage. The caller may be the person who placed the device or someone else who has become aware of such information.

2. The caller wants to create an atmosphere of anxiety and panic which will, in turn, possibly result in a disruption of the normal activities at the installation where the device is purportedly located.

When a bomb threat call has been received, there will be a reaction to it. If the call is directed to an installation where a vacuum of leadership exists or where there has been no organised advance planning to handle such threats, the call will result in panic.

Panic

Panic is one of the most contagious of all human emotions. Panic is defined as a "sudden, excessive, unreasoning, infectious terror". Panic is caused by fear - fear of the known or the unknown. Panic can also be defined in the context of a bomb threat call as the ultimate achievement of the caller.

Once a state of panic has been reached, the potential for personal injury and property damage is dramatically increased. Emergency and essential facilities can be shut down or abandoned and the community denied their use at a critical time.

Leaving facilities unattended can lead to destruction of the facility and the surrounding area. Large chemical manufacturing plants, power plants, unattended boilers, and other such facilities require the attention of operating personnel.

Other effects of not being prepared or not having an organised plan to handle bomb threat calls can result in a lack of confidence in the leadership. This



will be reflected in lower productivity or reluctance to continue employment at a location that is being subjected to bomb threat calls.

B-2.3 Preparation

Lines of organisation and plans must be made in advance to handle bomb threats. Clear-cut levels of authority must be established. It is important that each person handle his assignment without delay and without any signs of fear.

Only by using an established organisation and procedures can you handle these problems with the least risk. This will install confidence and eliminate panic.

In planning, you should designate a control centre or command post. This control centre should be located in the switchboard room, or other focal point of telephone or radio communications. The management personnel assigned to operate the control centre should have decision-making authority on the action to be taken during the threat. Report on the progress of the search and evacuation should be made to the control centre. Only those with assigned duties should be permitted in the control centre. Make some provision for alternates in the event someone is absent when the threat is received.

B-2.4 Evacuation



The most serious of all decision to be made by management in the event of a bomb threat is evacuation or non-evacuation of the building.

The decision to evacuate or not to evacuate may be made during the planning phase. Management may pronounce a carte blanche policy that in the event of a bomb threat, evacuation will be effected immediately. This decision circumvents the calculated risk and gives prime consideration for the safety of personnel in the building. This can result in production downtime, and can be costly, if the threat is hoax. The alternative is for management to make the decision on the spot at the time of the threat. There is no magic formula which can produce the proper decision.

In the past, the vast majority of bomb threats turned out to be hoaxes. However, today more of the threats are materialising. Thus, management's first consideration must be for the safety of people. It is practically impossible to determine immediately whether a bomb threat is real.

Investigations have revealed that the targets for "terrorist bombings" are not selected at random. The modus operandi for selecting the target(s) and planting the explosive appears to follow this pattern. The target is selected because of political or personal gain to the terrorist. It is then kept under surveillance to determine the entrances and exists most used, and when.

This is done to determine the hours when very few people are in the building. The idea is that the intent is not to injure or kill people, but to destroy the building. Recommaissance of the building is made to locate an area where a bomb can be concealed, do the most damage, and where the "bomber" is least likely to be observed.



A test, or dry run, of the plan is often made. After the "dry run" and at a predetermined time, the building is infiltrated by the "bomber(s)" to deliver the explosives or incendiary device. The device may be fully or partially pre-set prior to planting. If it is fully set and charged, it is a simple matter for one or two of the group to plant the device in pre-selected concealed area.

This can be accomplished in minimum of time. If the device is not fully set and charged, one member may act as a lookout while others arm and place the device. Most devices used for the destruction of property are usually of the time-delay type. These devices can be set for detonation to allow sufficient time for the "bomber(s)" to be a considerable distance away before the bomb-threat call is made and the device is detonated.

The terrorists have developed their plan of attack and the following procedures are suggested to business and industry for coping with bomb threats.

B-2.5 How to Prepare

B-2.5.1 Contact the police, fire department or other local government agencies to determine whether any has a bomb disposal unit. Under what conditions is the bomb disposal unit available? What is the telephone number? How can you obtain the services of the bomb disposal unit in the event of a bomb threat? Will the bomb disposal unit assist in the physical search of the building or will they only disarm or remove explosives.

B-2.5.2 Establish strict procedures for control and inspection of packages and material entering critical areas.



B-2.5.3 Develop a positive means of identifying and controlling personnel who are authorised access to critical areas.

B-2.5.4 Arrange, if possible, to have police and or fire representatives with members of your staff inspect the building for areas where explosives are likely to be concealed. This may be accomplished by reviewing the floor plan of the building.



B-2.5.5 During the inspection of the building, you should give particular attention to elevator shafts, all ceiling areas, rest rooms, access doors, and crawl space in rest rooms and areas used as access to plumbing fixtures, electrical fixtures, utility and other closet areas, space under stairwells, boiler (furnace) rooms, flammable storage areas, main switches and valves, e.g. electric, gas, and fuel, indoor trash receptacles, record storage areas, mail rooms, ceiling lights with easily removable panels, and fire hose racks. While this list is not complete, it can give you an idea where a time-delayed explosive or an incendiary device may be concealed.

B-2.5.6 All security and maintenance personnel should be alert to suspicious looking or unfamiliar persons or objects.

B-2.5.7 You should instruct security and maintenance personnel to make periodic checks of all rest rooms, stairwells, under stairwells, and other areas of the building to assure that unauthorised personnel are not

B-2.5.8 You should assure adequate protection for classified documents, proprietary information and other records essential to the operation of your business. A well-planted, properly charged device could, upon detonation, destroy those records needed in day-to-day operations. Computers have also been singled out as targets by bombers.

B-2.5.9 Instruct all personnel, especially those at the telephone switchboard, in what to do if a bomb threat call is received.

As a minimum, every telephone operator or receptionist should be trained to respond calmly to a bomb threat call. To assist these individuals, a bomb threat



call checklist of the type illustrated at the back of this pamphlet should be kept nearby. In addition, it is always desirable that more than one person listen in on the call. To do this, have a covert signalling system, perhaps a coded buzzer signal to a second reception point. A calm response to the bomb threat could result in getting additional information. This is especially true if the caller wishes to avoid injuries or deaths. If told that the building is occupied or cannot be evacuated in time, the bomber may be willing to give more specific information on the bomb's location.

B-2.5.10 Organise and train an evacuation unit consisting of key management personnel. The organisation and training of this unit should be coordinated with other tenants of the building.

- a) The evacuation unit should be trained on how to evacuate the building during a bomb threat. You should consider priority of evacuation, i.e., evacuation by floor level. Evacuate the floor levels above the danger area in order to remove those persons from danger as quickly as possible. Training in this type of evacuation should be available from police, fire or other units within the community.
- b) You may also train the evacuation unit in search techniques, or you may prefer a separate search unit. Volunteer personnel should be solicited for this function. Assignment of search wardens, team leaders, etc. can be employed. To be proficient in searching the building, search personnel must be thoroughly familiar with all hallways, restrooms, false ceiling areas and every location in the building where an explosive or incendiary device may be concealed.

When the police or firemen arrive at the building, if they have not previously reconnoitred the building, the contents and the floor plan will be strange to them. Thus, it is extremely important that the evacuation or search unit be thoroughly trained and familiar with the floor plan of the building and immediate outside areas. When the room or particular facility is searched it should be marked or the room sealed with a piece of tape and reported to the group supervisor.



- c) The evacuation or search unit should be trained only in evacuation and search techniques and not in the techniques of neutralising, removing or otherwise having contact with the device is located it should not be disturbed but a string or paper tape may be run from the device location to a safe distance and used later as a guide to the device.

B-2.6 When a Bomb Threat is Called In

B-2.6.1 Keep the caller on the line as long as possible. Ask him to repeat the message. Record every word spoken by the person.

B-2.6.2 If the caller does not indicate the location of the bomb or the time of possible detonation, you should ask him for this information.

B-2.6.3 Inform the caller that the building is occupied and the detonation of a bomb could result in death or serious injury to many innocent people.

B-2.6.4 Pay particular attention to peculiar background noises such as motors running, background music, and any other noise which may give a clue as to the location of the caller.

B-2.6.5 Listen closely to the voice (male, female), voice quality (calm, excited), accents and speech impediments. Immediately after the caller hangs up, you should report to the person designated by management to receive such information. Since the law enforcement personnel will want to talk firsthand with the person who received the call, he should remain available until they appear.

B-2.6.6 Report this information immediately to the police department, fire department and other appropriate agencies. The sequence of notification should have been established during coordination in item B-2.5.1 above.



B-2.7 Written Threats

Save all materials, including any envelope or container. Once the message is recognised as a bomb threat, further unnecessary handling should be avoided. Every possible effort must be made to retain evidence such as fingerprints, handwriting or typewriting, paper and postal marks which are essential to tracing the threat and identifying the writer.

While written messages are usually associated with generalised threats and extortion attempts, a written warning of a specific device may occasionally be received. It should never be ignored. With the growing use of voice print identification techniques to identify and convict telephone callers, there may well be an increase in the use of written warnings and calls to third parties.



B-2.8 Bomb Search Techniques

B-2.8.1 Do not touch a strange or suspicious object. Its location and description should be reported to the person designated to receive this information.

B-2.8.2 The removal and disarming of a bomb or suspicious object must be left to the professionals in explosive ordnance disposal. Who these professionals are and how to contact them for assistance is something that you should include in any bomb threat plan.

B-2.8.3 All requests for assistance should be directed to one or more of the Emergency Numbers listed on page one. Be sure that the telephone numbers for these agencies are included in your plan.

B-2.8.4 If the danger zone is located, the area should be blocked off or barricaded with a clear zone of three hundred feet until the object has been removed or disarmed.

B-2.8.5 During the search of the building, a rapid two-way communication system is of utmost important. Such a system can be readily established through existing telephones. CAUTION - the use of radios transmission energy can cause premature detonation of an electric initiator (blasting cap)

B-2.8.6 The signal for evacuating the building in the event of a bomb threat should not be the same as that a fire. In the bomb threat, where possible, all doors



and windows should be opened to permit the blast wave to escape in the event of an explosion. Also, evacuation routes will have to be determined if a bomb is found so as to lead people away from the bomb.

B-2.8.7 If the building is evacuated, controls must be established immediately to prevent unauthorised access to the building. These controls may have to be provided by management. If proper coordination has been effected with the local police and other agencies, these may assist in establishing controls to prevent re-entry into the building until the danger has passed.

B-2.8.9 During the search, the medical personnel of the building should be alerted to stand by in case of an accident caused by an explosion of the device.

B-2.8.10 Fire brigade personnel should be alerted to stand by to man fire extinguishers.

B-2.8.11 Pre-emergency plans should include a temporary relocation in the event the bomb threat materialises and the building is determined to be unsafe.



B-2.9 Room Search

The following technique is based on use of a two-man searching team. There are many minor variations possible in searching a room. The following contains only the basic techniques.

B-2.9.1 First Team Action – Listening

When the two-man search team enters the room to be searched, they should first move to various parts of the room and stand quietly, with their eyes shut and listen for a clock work device. Frequently, a clockwork mechanism can be quickly detected without use of special equipment. Even if no clockwork mechanism is detected, the team is now aware of the background noise level within the room itself.

Background noise or transferred sound is always disturbing during a building search. In searching a building, if a ticking sound is heard but cannot be located, one might become unnerved. The ticking sound may come from an unbalanced air conditioner fan several floors away or from a dripping sink down the hall. Sound will transfer through air-conditioning ducts, along water pipes and through walls, etc. One of the worst types of buildings to work in is one that has steam or water heat. This type of building will constantly thump, crack, chatter and tick due to the movement of the steam or hot water through the pipes and the expansion and contraction of the pipes. Background noise may also be outside traffic sounds, rain, wind, etc.

B-2.9.2 Second Team Action - Division of Room and Selection of Search Height

The man in charge of the room searching team should look around the room and determine how the room is to be divided for searching and to what height the first searching sweep should extend. The first searching sweep will cover all items resting on the floor up to the selected height.



Dividing The Room - you should divide the room into two equal parts or as nearly equal as possible. This equal division should be based on the number and type of objects in the room to be searched, not the size of the room. An imaginary line is then drawn between two objects in the room, i.e., the edge of the window on the north wall to the floor lamp on the south wall.

Selection of First Searching Height - look at the furniture or objects in the room and determine the average height of the majority of items resting on the floor. In an average room this height usually includes table or desk tops, chair backs, etc. The first searching height usually covers the items in the room up to hip height.

B-2.9.3

Second Room Searching Sweep

After the room has been divided and a searching height has been selected, both men go to one end of the room division line and start from a back-to-back position. This is the starting point, and the same point will be used on each successive searching sweep. Each man now starts searching his way around the room, working toward the other man, checking all items resting on the floor around the wall area of the room. When the two men meet, they will have completed a "wall sweep" and should then work together and check all items in the middle of the room up to the selected hip height. Don't forget to check the floor under the rugs. This first searching sweep should also include those items which may be mounted on or in the walls, such as air-conditioning ducts, baseboard heaters, built-in wall cupboards, etc., if these fixtures are below hip height. The first searching sweep usually consumes the most time and effort. During all searching sweeps, use the electronic or medical stethoscope on walls, furniture items, floors, etc.

B-2.9.4

Second Room Searching Sweep

The man in charge again looks at the furniture or objects in the room and determines the height of the second searching sweep. This height is usually from the hip to the chin or top of the head. The two men return to the starting point and repeat the searching techniques at the second selected



searching height. This sweep usually covers pictures hanging on the walls, built-in bookcases, tall table lamps, etc.



B-2.9.5 Third Room Searching Sweep

When the second searching sweep is completed, the man in charge again determines the next searching height, usually from the chin or the top of the head up to the ceiling. The third sweep is then made. This sweep usually covers high mounted air-conditioning ducts, hanging light fixtures, etc.

B-2.9.6 Fourth Room Searching Sweep

If the room has a false or suspended ceiling, the fourth sweep involves investigation of this area. Check flush or ceiling-mounted light fixtures, air-conditioning or ventilation ducts, sound or speaker systems, electrical wiring, structural frame members, etc.

Have a sign or marker posted indicating "Search Completed" conspicuously in the area. Use a piece of colored scotch tape across the door and door jamb approximately two feet above floor level if the use of signs is not practical.

The room searching technique can be expanded. The same basic technique can be used to search a convention hall or airport terminal.

Restated, to search an area you should:

1. Divide the area and select a search height.
2. Start from the bottom and work up.
3. Start back-to-back and work toward each other.
4. Go around the walls then into the centre of the r

Encourage the use of common sense or logic in searching. If a guest speaker at a convention has been threatened, common sense would indicate searching the speakers' platform and microphones first, but always return to the searching technique. Do not rely on random or spot checking of only logical target areas. The bomber may not be a logical person.



(For comparison of search systems, see attached charts)



B-2.10

Suspicious Object Located

Note: It is imperative that personnel involved in the search be instructed that their mission is only to search for and report suspicious objects, not to move, jar or touch the object or anything attached thereto. The removal/disarming of a bomb must be left to the professionals in explosive ordnance disposal. Remember that bombs and explosives are made to explode, and there are no absolutely safe methods of handling them.

B-2.10.1

Report the location and an accurate description of the object to the appropriate warden. This information is relayed immediately to the control centre who will call police, fire department, and rescue squad. These officers should be met and escorted to the scene.

B-2.10.2

Place sandbags or mattresses, not metal shield plates, around the object. Do not attempt to cover the object.

B-2.10.3

Identify the danger area, and mark it off with a clear zone of at least 300 feet
- include area below and above the object.

B-2.10.4

Check to see that all doors and windows are open to minimize primary damage from blast and secondary damage from fragmentation.

B-2.10.5

Evacuate the building.

B-2.10.6

Do not permit re-entry into the building until the device has been



removed/disarmed, and the building declared safe or re-entry. You should recognise your responsibility to the public and the necessity for maintaining good public relations. This responsibility also includes the safety and protection of the public. We may well be approaching the point, when in the interest of security and protection of people, some inconvenience may have to be imposed on persons visiting public building.

Perhaps entrances and exits can be modified with a minimal expenditure to channel all personnel through someone at a registration desk. Personnel entering the building would be required to sign a register showing the name and room number of the person whom they wish to visit. Employees at these registration desks could contact the person to be visited and advise him that a visitor, by name, is in the lobby. The person to be visited may, in the interest of security and protection, decide to come to the lobby to meet this individual to ascertain that the purpose of the visit is valid and official. A system for signing out when the individual departs could be integrated into this procedure. There is no question that such a procedure would result in many complaints from the public. If it were explained to the visitor by the person at the registration desk that these procedures were implemented in his best interest and safety, the complaints would be reduced.

Other factors for consideration include:

- a) Installation of closed-circuited television.
- b) Installation of metal detecting devices.
- c) Posting of signs indicating the use of closed circuit television or other detection devices.



The above are suggestions - in the final analysis of this entire complex problem, the decision is yours.

B.2.11 Building - Their Problem

The physical construction of buildings and their surrounding areas vary widely. Following are a few of the problems search teams will encounter.

B.2.11.1 Outside areas

When you search outside areas, pay particular attention to street drainage systems, manholes in the street and in the sidewalk. Thoroughly check trash receptacles, garbage cans, dumpsters, incinerators, etc. Check parked cars and trucks. Check mail boxes if there is a history of placement in your area.

B.2.11.2 Office Buildings

The biggest problem in office buildings is many locked desks. A repair of desk locks is an expensive item. There will be many other items to keep you busy, such as filing cabinets, storage closets, wall lockers, etc. Watch out for the company's security system if they deal in fashions of any type, the automotive or aircraft industry, defence contracts, or the toy industry. Electrical leads, electrical tapes, electrical eyes, electrical pressure mats, electrical micro-switches, will all ring those huge bells that no one knows how to turn off.



B-2.11.3

Auditoriums, Amphitheatres', and Convention Halls

Here, thousands of seats must be checked on hands and knees. Look for cut or unfastened seats with a bomb inserted into the cushion or back. Check out the stage area which has tons of equipment in it; also the speaker's platform and the microphones. The area under the stage generally has crawl ways, tunnels, trapdoors, dressing rooms, and storage areas. The sound system is extensive and the air-conditioning system is unbelievable. The entire roof area, in a theatre, frequently has one huge storage room and maintenance area above it. Check all hanging decorations and lighting fixtures.

B-2.11.4

Elevator Wells and Shafts

Elevator wells are usually one to three feet deep with grease, dirt and trash and must be probed by hand. To check elevator shafts, get on the top of the car with two six-volt lanterns, move the car up a floor (or part of a floor) at a time and look around the shaft. Be prepared to find nooks, closets, storage rooms, false panels, walk areas, and hundreds of empty whisky bottles in paper bags. Don't forget that as you go up, the counterweights are coming down - check them too. The elevator machinery is generally located on the roof. A Word of Caution: Watch for strong winds in the elevator shaft. Don't stand near the edge of the car.



B-2.12 Handling of New Media

It is of paramount importance that all inquiries by the news media be directed to one person appointed as spokesman. All other persons should be instructed not to discuss the situation with outsiders, especially the news media.

The purpose of this provision is to furnish the news media with accurate information and see that additional bomb threat calls are not precipitated by irresponsible statements from uninformed sources.



B-2.13 Letters and Package Bombs

B-2.13.1 Background

Letter and package bombs are not new. While the latest incidents have involved political terrorism, such bombs are made for a wide variety of motives. The particular form of these bombs varies in size, shape and components. They may have electric, non-electric or other sophisticated firing systems.

B-2.13.2 Precautions

Mail handlers should be alert to recognise suspicious looking items. Mail should be separated into "personal" and "business". Although there is no approved, standard detection method, the following precautions are suggested:

- a) Look at the sender's address. Is it a familiar one?
- b) Is correspondence from the sender expected? Do the characteristics of the envelope or package resemble the expected contents?
- c) If the item is from another country, ask yourself if it is expected. Do you have relatives or friends travelling? Did you buy something from business associates, charitable or religious groups, international organisation, etc?



IF YOU HAVE A SUSPICIOUS LOOKING LETTER OR PACKAGE:

DO NOT TRY TO OPEN IT.

ISOLATE IT AND EVACUATE EVERYONE IN THE VICINITY TO A SAFE DISTANCE.

NOTIFY LOCAL POLICE AND AWAIT THEIR ARRIVAL.

* * * * *



Suggested form to be completed by investigators following:

BOMB THREAT CALLS

Type of Complainant:

School Hospital Industrial Manufacturing Co.

Business Other _____

Business Name of Complainant: _____

Business Address: _____

Business Telephone: _____

Name of Person Reporting Complaint: _____

Telephone Number that Call Was Received On: _____



Date & Time of Call: _____

Name of Person Who Talked to the Caller: _____

Exact Words Said By Caller: _____

Background Noises (i.e., Street Sounds, Baby Crying etc.): _____

Information about Caller: Age _____ Sex _____ Race _____

Accent _____ Education Level _____

Speech Impediments (Drunk, Lisp, etc.): _____

Attitude (Calm, Excited, etc.): _____

Any Suspect? () Yes () No

If yes, approximately how many? _____



Have Previous Calls Been Received? Yes No

Has the Telephone Company Security Department Been Notified?

Yes No

Was any Incendiary or Explosive Device Found? Yes No

No. of Threats Received Thus Far During Calendar Year: _____



CHECK LIST WHEN YOU RECEIVE A BOMB THREAT

Time and Date Reported: _____

How Reported: _____

Exact Words of Caller: _____

Questions to Ask:

1. When is bomb going to explode? _____

2. Where is bomb right now? _____

3. What kind of bomb is it? _____

4. What does it look like? _____



5. Why did you place the bomb? _____

6. Where are you calling from? _____

Description of Caller's Voice: _____

Male _____

Female _____

Young _____

Middle Age _____

Old _____

Accent _____

Tone of Voice _____

Is voice familiar? () Yes () No

If so, who did it sound like: _____

Other voice characteristics: _____

Time Caller Hung Up: _____



Remarks: _____

Name, Address, Telephone of Recipient: _____



RECORD

1. Date _____ and time _____ of call.
2. Exact language used _____
3. Male Female
 Adult Child
Estimated age _____ Race _____
4. Speech (Check applicable bracket)
 Slow Excited Disguised
 Rapid Loud Broken
 Normal Normal Sincere
5. Accent _____
6. Background Noises _____
6. Name of person receiving the call: _____



SEARCH SYSTEMS

SEARCH BY	SUPERVISORY	OCCUPANT	TEAM
Advantages	<ul style="list-style-type: none"> -convert. -fairly rapid. -loss of working time supervisor only. 	<ul style="list-style-type: none"> -rapid. -no privacy violation problem. -loss of work time for shorter period of time than for evacuation. -personnel conducting search are familiar with area. 	<ul style="list-style-type: none"> -thorough. -no danger to workers who have been evacuated. -workers feel concern for their safety.
Disadvantages	<ul style="list-style-type: none"> -unfamiliarity with many areas. -will not look in duty places. -covert search is difficult to maintain 	<ul style="list-style-type: none"> -requires training of entire work force. -requires several practical training exercises. -danger to 	<ul style="list-style-type: none"> -loss of production time. -very slow operation -requires comprehensive training and practice.



	<p>-generally results in search of obvious areas, not hard to reach ones.</p> <p>-violation of privacy problems.</p> <p>-danger to unevacuated workers.</p>	unevacuated workers	-privacy violation problems.
Thoroughness	50% - 65%	80 - 90%	90 - 100%
Others	<p>-BEST for convert search</p> <p>-POOR for thoroughness</p> <p>-POOR for morale if detected</p>	<p>-BEST for speed of search</p> <p>-GOOD for thoroughness</p> <p>-GOOD for morale (with confidence in training given beforehand)`</p>	<p>-BEST for safety</p> <p>-BEST FOR thoroughness</p> <p>-BEST for morale</p> <p>-POOR for lost work Time</p>



SECTION B - 3

TYPHOON PROCEDURES

Insert a copy of your properties typhoon procedure.



SECTION B - 4

B-4.1 General

Accidents can be defined as follows: 'an accident includes any suddenly occurring UNINTENTIONAL event which causes injury or property damage'.

Accidents cost money and loss of time on the job. Even more important is the cost of human life or abilities.

It is therefore important that every effort should be made for 'safety education' which means identifying possible causes of accidents and establishing a prevention programme.

Studies should be made and typical or common unsafe acts or conditions pointed out. Local safety regulations should be obtained and incorporated in your safety education programme. These include the provision of obligatory warning signs as well as accident prevention signs being installed where deemed necessary.

Intelligently located and properly worded signs provide an automatic warning to be cautious of all hazards in the property; however short training sessions are essential. By calling a group together for safety instruction you can emphasise your message.

1. Identify a safety programme.
2. Demonstrate the right way to do the job.
3. Point out the hazards to be avoided.
4. Show how wastage and damage may occur if the job is done improperly.



5. Have one or more employees perform the same task.
6. Correct any mistakes as they proceed.

It is essential that Technical Managers, during regular inspection tours note and have corrected immediately, all conditions which may cause unsafe acts or physical hazards not only from a technical aspect but concerning all aspects of the hotel operations.

Each Technical Manager should also realise that besides the values he will receive by developing a safety programme he can also benefit:

1. By showing interest in the safety of his staff, he can be in the workshops watching them and also evaluating their performing without being accused of being a 'watchdog'.
2. As accidents are responsible for poor performing, good accident prevention will increase efficiency and at the same time ensure the safety of employees.



B-4.2 Safety Tags

The purpose of the safety tag is to prevent injury or loss of life. Engineering personnel are subject to danger in many obvious and also less obvious ways-machinery, or tanks large enough to trap people, motors which start automatically, equipment remotely controlled etc. are just a few examples of the danger present.

By adopting a simple method by which 'safety' tags are carried by each member of the Technical Department, it should be possible to help eliminate these dangers.

Procedure

Before commencing any work which could possibly result in anyone being injured, the worker shall shut off power supplies, steam lines, water supplies etc. The control of the particular item must then immediately have the worker's tag affixed.

Example: After tripping a breaker, an electrician proceeds to a remote location to repair a motor but not posting his tag. Another electrician notices the motor is not running and closes the circuit breaker, injuring the first electrician. If the breaker had been tagged this could not have occurred.

After a switch has been secured, removal of the tag by any other person is strictly forbidden, punishable by instant dismissal.



When the work has been completed, due care should be exercised in removing tags. The only person who can remove a tag posted by yourself is yourself. Each person must post his own tag when working in a potentially dangerous location. If there is more than one person working on the equipment then each person must post his own tag to avoid any possible chance of a worker thinking they are protected by someone else's tag who may have been called away to another location and removed their own tag.

Notes:

1. Tags may be issued with the name of the individual already printed in which case the card could be of plastic laminate and be required to be kept in every tool box.
2. Tags could be of heavy card board and be used only once.
3. Tags may be removed by the Technical Manager in the presence of a responsible person after due precautions are taken. (This should be done to protect against malicious posting).
4. Equipment that is automatically started or remotely controlled should, in all cases, have a notice to that effect posted on the equipment in a conspicuous place.



SAMPLE TAG

D A N G E R

D O N T O P E R A T E

This tag has been placed here to prevent injury to workers, some possibly at remote locations.

This card may only be removed by the person who attached it and whose signature appears below

NAME: _____

DEPT: _____

SUPERVISOR: _____

D A N G E R



SECTION C - 1

Communication

If we should communicate accurately and promptly many of the daily problem, in a hotel would be resolved immediately.

It is altogether a too well known fact that people understand the information they wish to hear... which is not necessarily the same information that was transmitted.

Information must be transmitted so that:

- it can be easily understood.
- it cannot be easily misunderstood.

Instruction should be :

clear concise complete

Written work orders are used by the Technical Department to help to avoid oral misunderstandings but, even with written information we have to be very careful to write explicitly.





SECTION C - 2

Training

Instructing the technical staff in the details of their work required good communication skills and is absolutely essential to the development of an efficient, capable organisation.

Training is a continuous, never ending function of all department heads.

* * * * *



SECTION C - 3

Training Programmes

Individual Technical Manager should conduct "On The Job" training for their personnel.

This should include such things as:

Plumbing System:

Operation - how it works, what the controls do, how the boiler is constructed, safety features etc.

AHU's :

Correct cleaning methods, how the controls operate etc.

Conduct :

How to react to guests, importance of cleanliness, cleaning up after completing a job, hotel policies etc.

Chillers :

Correct operating - what to look for with respect to machine efficiencies, what gauges are for and why they are necessary etc.



Fire Systems :

How they operate.

Seminars :

Training seminars can be organised with technicians from equipment suppliers such as:

- a) air conditioning controls.
- b) chillers.
- c) diesel generators (where applicable).
- d) cooling towers (where applicable).
- e) chemical treatment.

In this way staff will become more efficient and also adaptable in cases of emergencies.

* * * * *



SECTION C - 4

How To Improve Job Methods

Stage One : A practical plan to make better use of manpower, machines, and materials now available.

**COULD THE WHOLE JOB BE
ELIMINATED?**

Step 1 : SELECT

The job on which you can quickly:
make work safer,
make work easier,
reduce excessive movement,
eliminate bottlenecks,
give better service.



Step 2 : ANALYSE AND RECORD

Watch the job being done - list details exactly as done by present method.

Note Snags And Difficulties.

Step 3 : EXAMINE

Challenge each detail - Key activities first.

Why is it done?

Is it necessary?

Is there a better way? Where? When? Who? How?

Note ALL ideas.

Step 4 : DEVELOP

Review ideas and note trends.



Eliminate - Simplify - Combine - Rearrange.

Make the new method SAFE.

List details of improved method.

Submit for Approval.

Step 5 : **INSTALL**

Consider best time to introduce.

Convince all concerned.

Train the users.

Step 6 : **MAINTAIN**

Check frequently.

Watch results.

SEEK OPPORTUNITIES

FOR FURTHER IMPROVEMENT



ALWAYS ENLIST THE HELP OF THOSE DOING THE JOB

USE THESE AIDS:

Safety

Is it the safest method?

Does it conform to safety rules?

Materials

Can better, less expensive, or less scarce materials be used?

Equipment

Is your equipment correct, fully used, and in good working condition?

Is other equipment available within the organisation?

Can holding devices be used?



Can gravity aids help?



Sun Paradise Hotels Management

The technician should not wander around the room but go directly to the problem.

Should a guest be abusive our staff must always remember - the guest is always right. Under no circumstances should staff make any response which could further irritate the guest. Everything should be done to calm the guest but properly the best thing is to attempt to ignore the abuse and try to solve the problem as quickly as possible.

Never blame or criticise a fellow employee, management of the Hotel, or equipment. The important thing is to solve the problem as quickly and efficiently as possible. The best approach is the least conversation. The problem which the guest has under no circumstances need to a technician make any comments or personal opinions of the Group or the Hotel for the malfunction of any equipment. The whole attitude of employees should be that the Hotel is attempting to the best of their ability to provide the guest with the ultimate in service and convenience. The problem should be treated as an unfortunate and unusual experience or incident. The problem really should be treated as being similar to an accident where everything possible has been done to avoid it, but nevertheless unfortunately it happens. Whatever the problem, it should not be treated as an everyday occurrence that is a source of trouble to the Maintenance Department.

C-9.6 Tips

Tips should not be accepted by maintenance personnel as there is normally a service charge made in our hotels to guests in lieu of tipping



SECTION C - 10

Summary

All department heads, especially the technical manager, should be aware that one of the greatest contributions he can make to the excellence of the Hotel is to adequately train his staff and especially his immediate subordinates. Withholding knowledge from your next in command is not only short-sighted, but can greatly damage the development of staff that can assist his superior.

An important factor also which should be conveyed to your staff is the each and every person employed in a hotel is, in effect, a salesperson for the hotel.

THE SUCCESS OF ANY HOTEL IS GREATLY DEPENDENT ON ITS EMPLOYEES.
