

The Art and Science of Maintenance Cleaning

By Saleem Jadoon, HK Consultant



The word 'clean' is defined as free from dirt, pollution, contamination or disease and the process of achieving it is called cleaning. The cleaning process has essentials they consist generally of Chemistry, Mechanics, Temperature, and Time (CMTT).

CMTT, when uniformly applied in suitable proportions produces a hygienically cleaned hard or soft surface often referred to as 'A Clean Space' in common parlance.

Without getting too technical to our general readers, the chemistry part of CMTT often means the usage of 'Detergents' of which molecules consisting of two parts:

- A water-loving agent called hydrophilic and;
- A fat-loving agent known as lipophilic.

Detergents whether Anionic, Cationic, or Non-ionic increase the spreading & wetting ability of the water by reducing surface tension, separating soil from the surface, and preventing the soil being re-deposited on the cleaned area. The Mechanics part of CMTT is achieved through agitation of the machines used, preferably in hot water (Temperature) over a period of Time.

The phenomenon of maintenance cleaning



IN THIS ISSUE

- Water Leak Detection in Saudi Services Market niche ... Page 2
- Saudi Services Succeeds in the reduction of the water losses in Qassim water networks... Page 3
- What makes FMS different?... Page 4
- Escalator's handrail vulcanizing training course ... Page 5
- How your AC works... Page 6



is as much an art as it is a science and increasingly a technology that involves multi-billion dollar business worldwide. Saudi Binladin Group achieved a historic first when their O&M division pioneered and introduced the CMTT concept of Mechanized Cleaning first-time-ever at the Holy Haramain Projects way back in 1994 and never looked back. The introduction of customized gasoline & battery powered rider scrubber-sweepers, specialized vacuum machines and host of other tools and gadgets replaced the century-old medieval cleaning processes of unsightly brooms & ungainly mops at both the Holy Mosques that were admired world over by the pilgrims and media equally. CNN news channel broadcasted



our rider scrubber-sweepers in action during the Hajj-1998 to the entire world audiences.

Now a question can be raised why mechanized processes are better or may replace the trusted brooms, mops & floor squeegees? Brooms or dusters when applied to a surface agitate dust and force it to migrate to an adjacent or higher place in the same building or facility. Similarly, the mops & squeegees may clean the first few meters of a floor yet thereafter it begins to spread the collected soiled solution all over the place. In effect, therefore, the use of brooms, mops and floor squeegees partly help spread the dirt rather than the other way around. On the other hand, the mechanized cleaning is designed to arrest the soil, store it in specified compartments of the machines and dispose it off or drain it in designated areas. Every inch of the surface thus is cleaned by fresh cleaning solution dispensed and controlled by the equipment. A demonstration of the process is in evidence at Holy Haramain and the King Abdul Aziz Endowment project in Makkah.

The phenomenon of 'Cleaning' is all inclusive, that is: An area or surface is either clean OR it is not clean. There is no middle ground. However, there could be frequencies of cleaning assigned to a specific project as per the requirements of the facility or according to client's tolerance levels.

Cont'd Page 6

Message from EBM/ Executive Director

Eng. Samir Janjoom



The current world wide inflation is affecting SBG (O&M) Operations because SBG (O&M) is importing from the world market material and spare parts. The prices of the material purchased locally also increased because of the increase of the raw material world wide.

In these prevailing conditions there should be remedies that can face the rapidly rising inflation. This can be achieved by applying clear spending policies taking into consideration the increase in prices. Spending policies should also be accompanied by conserving the fixed assets to extend the life expectancy as long as possible by proper care, this will result in higher efficiency in producing the services. This last will lead eventually to decreasing the cost of these services to compensate in part for the increase in the material used.

SBG (O&M) can, as had always done, pass through these difficulties but the only way is by the solid cooperation of all employees and specially those responsible for the departments and the projects. The application of the policies should be done in a way suitable for each project or department, since each of our projects has special requirements that are different from other projects and departments.

Water Leak Detection is Saudi Services Market niche

Written by: Marwan Kaissi, Studies Section Senior Estimator

We are pleased to announce that Saudi Services Co. Ltd. was awarded a new contract from the Ministry of Electricity and Water in the field of water leak detection.

The new mandate titled "Water Leak Detection at Al-Jouf" is considered similar to the ongoing contract presently Saudi Services is undertaking at Qassim Area (4 Districts) to the satisfaction of the Ministry. The scope of work consists of locating the sources of Water Leak in the Main pipes of the Water Distribution Network, and rectifying the fault by replacing the broken pipe/faulty valve. The aim of the project is to reduce to a minimum the percentage of losses of water from the production point to the end users. The main aim is to achieve a steady and continuous supply of water to the consumer in a most economical and reliable way.



This field of service requires special equipment and specialized Engineers with good past experience and Saudi Services has the resources as they have already proven to be up to the level and the challenge in the marketplace.

In addition, Saudi Services participation in Water leak Detection tender bids looks very promising as Saudi Services has surpassed the competition in the following tenders:

- 1-Water Leak Detection at Onaizah.
- 2-Water Leak Detection at Buraidah.

We wish Saudi Services success in this specialized field of service as we are confident of their continual improvement and implementation of a quality service to the satisfaction of the Ministry of Electricity and Water.

Editor's Note

Dear Reader

The success of any organization depends mainly on the partnership of the organization with its employees. This partnership is clearly shown in what the employees present of new ideas that help in developing the work performance and its procedures. Also, the ideas that help remove redundant steps of work causing delays. The result will

be to achieve smooth flowing work procedures that give the employee performing the job full confidence in the result of what he is doing.

In this newsletter we repeatedly requested our readers to present such ideas and we were always and we are still ready to highlight any achievement of any employee in this regard in our newsletter to give him the credit he deserves.

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WHEN IN NEED FOR A GREEN-KEEPER CALL ON UNITED SERVICES

How to choose your Indoor Plants



The indoor Plant is described as one that consents to become the willing, happy and permanent inhabitant of a normal home. The Good and Real Indoor Plant should be able to adapt itself to the room conditions of a house or flat. You cannot be expected to change your home to suit plants, but at least you can choose plants to suit your home; so it is wise to confine your indoor gardening to those plants which are prepared to accept your home as it is, with perhaps some mild feasible modifications.

Choosing the right plant depends on:

- The house's ambiance (temperature, humidity, ...etc)
- The available lighting (sunlight or artificial light)
- Indoor Gardening Skills

If you live in a hot place and

you are away a great deal and the air conditioning is turned off for considerable periods, then you must choose the hardy and drought tolerant plants.

If you live in a dark place where sunshine is rare, you must choose non flowering plants.

If light is still poor, you must grow Shade-Lover plants.

Lastly, choose Indoor Plants according to your skill as an indoor gardener. keep an open mind when you go to plant shopping, listen to the nurseryman or the shopkeeper, ask him questions if you need to and keep in mind that there are plants that are so easy to take care of, while there are others that need high levels of skill and experience.



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SAUDI SERVICES CO. LTD

THE PREVENTION OF A PROBLEM IS BETTER THAN THE CURE

Saudi Services Succeeds in the reduction of the water losses in Qassim water networks

Water Projects Department in Saudi Services Company Limited succeeded to reduce the loss in water networks in Badse, Rase, Mozanab and Oneiza from 48% to less than 12% SSCL also was able to deliver the works in a shorter time than expected. 17 neighborhoods were handed over for which inspection was completed and repair of leaks and calculations of percentage of loss before and after the repair.

Digital drawings were prepared for the network where the components of the water networks were updated to as built of all network parts, main valves, and branch valves, buried and unburied valves which were unknown before the inspection. Also in the drawings were shown branches that were not documented on drawing such as uninhabited old houses which were a big source for network pollution because of the mixing between clean water and sewage. Also gov-

ernment buildings and some villas with high water consumption were inspected. Our teams handled all the problems that they faced, and in-house teams were used without depending on sub contractors. The teams did all the excavations and construction works needed even in areas where excavation can reach more than 2 meters. Water meters were installed on 300mm pipes, considering being away from the other utilities services such as electricity, telephone and sewage systems and performing all the work in times as permitted by the municipalities, traffic department, civil defense and transportation department. New teams were trained to complete the works of inspection, survey, repair and reading of water meters.

Our teams received commendations from our clients in the departments they worked in.

We hope this success will continue in the future.

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FOR HEALTHIER WORKING ENVIRONMENT AND ENSURING AN ENERGY EFFICIENT BUILDING YOU CAN BREATHE EASIER WITH AL-ENAYA

Enaya in King Fahd Hospital

Reported By: Rayan Hazem Shahadah for Enaya

Once again Al-Enaya proves that the stable vision of honesty, competency and care for the customer leads to continuous success. Al-Enaya, and because of what King Fahd Hospital administration witnessed of the differences between the situation of the ducts before and after Al-Enaya cleaned them. Because of all this, King Fahd

Hospital Administration assigned Al-Enaya to finish all the remaining areas of the Hospital, mainly Kidney Center division, offices and Musadia division for an approximate area of 20,000m2. Half of this area had already been cleaned and work is in progress to complete the whole area. This process is getting full approval and commendation from the Hos-



pital Administration which makes us proud of being part of Saudi Binladin Group.

Although we are a small company and recently established we have obtained in this short time a respectable place in the market, this is the result of the continuous efforts and high performance of all the staff and labors. We promise to keep on this track to the satisfaction of our customers.

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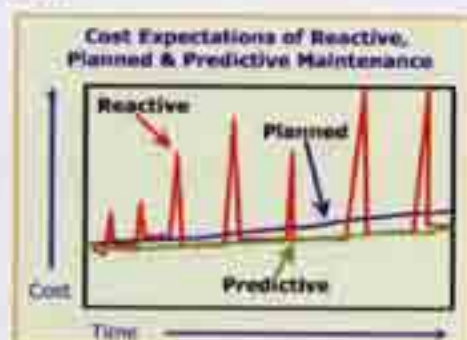
What makes FMS different?

Written by: Said N. Adra,
Business Development Department Head

All building or facilities owners or operators want to control their utilities and maintenance costs! In the same time they need to prevent building or facility dilapidation (decay), comply with government regulations and ensure the Health and Safety of occupants, employees, services personnel and visitors. A quandary Yes, an impossible task No! They truly need the expertise of SBG OM as facility management services provider to guide them through it all.

From time to time funding those costs are restrictive due to tight budget, particularly when there is an economic recession or the organization is short of funds. Under those circumstances the owners/operators use reactive planning to breakdown a very serious dilapidation concerns. In the short term there are few risks to worry about but this can change rapidly. Look all around you and you can easily notice many vacant or neglected properties, like office buildings, and factories within many of our industrial sectors in cities after cities of the kingdom where Millions of riyals are needed to correct the overwhelming dilapidation affecting these properties. For some, this can be attributed to their being vacant for a long period of time but mainly the true causes lie in the owners/operators reactive planning when it comes to decision making or keeping up with the cost of an adequate maintenance plan. In the case of some factories in the industrial sectors, after 5 to 10 years period their owners can expect to pay a substantial premium via shutdowns, increased dilapidation, reduced capital value and potential legal action if any.

The perceived method of tackling these issues are via appropriate planned maintenance, effectively taking a conservative view of the facility and what needs to be done and when. The results tend to be unnecessary expenditure, undertaking additional work such as replacing equipment earlier than necessary,



SBG OM has dilapidation plans that are designed to fit any situation in order to safeguard your investment against dilapidation for a good period of time. In some more restrictive budget, when planned maintenance are still considered not good enough, by tracking a more predictive approach the objectives change so that equipment is only updated when necessary or when likely to fail or its performance starts to deteriorate. The results are longer equipment life; only replace them when it is necessary to do so. The chart illustrates the impact of the above: within the first year we would expect to achieve a 3% to 5% saving over budgeted levels. By year three this would be expect-

ed to increase to approximately 10%, after inflation has been taken into account. There after cost would increase by under the level of inflation.

Also the preparation of Schedule of Dilapidations Inspections has been proven necessary under many property owner and tenant relationships. The Lease, which is the formal contract between both parties, would normally include a Repairing and Maintenance clause, which would oblige the tenant to maintain the building or part of the building under the terms of the Lease between them. This repairing obligation may extend to both the interior and exterior or be limited to internal repair only.

Our experience and involvement with the Development of King Abdul Aziz Endowment project in this field, allows us to act on behalf of both Developer/Owner and Investor/Operator. In preparing a Schedule of Dilapidations Inspections for the Developer it is necessary to ensure that the operator is properly maintaining the property within his contract. The inspection will highlight any deterioration in the building and the repairing obligations of the operator or his tenant. We can also act on behalf of various landlords to ensure that all repair works are carried out in their properties or alternatively the work can be directly executed and billed to the operator/tenant in the event that the landlord undertakes to carryout the needed repairs.



Dear Reader:**Got a QUESTION?**

Q: If the employee falls in debts; Do the creditor has the right to freeze part of his salary?

A: The law determines the percentage of the deduction of the salary in the item 92 of the labor law narrated "It is prohibited to freeze the salary of the employee,

regarding private rights without a written agreement from the employee except in the following situations:

Every debt according to a judicial order and the amount will not exceed quarter of the salary and this will be counted after deduction of the expenses of the food and clothing and housing and that is before the other debts.

Q: If the employee applies for the job by false certificates, what are the penalties in this respect?

A: if the employee brought false certificates in the purpose to cheat the employer that he has experience or having some qualifications, which the employer recruit him accordingly. This way is considered fraudulent way that the employer will fall in, because he will depend in his work on this employee, this case will make the employer loose money and time if he forwards the case to the court. So, reserving his rights the employer can terminate this contract without indemnity or any other bonuses under one condition that the employee will be in the test period.

Palaces & Residential**Escalator's handrail vulcanizing training course**

By: Mohamad Sablounh

Handrails have an important safety function, whether on a stationary stairway or on a moving escalator or passenger conveyor. They are a safeguard against tripping or toppling over, and especially on an escalator, they are important in the event of an emergency stoppage; in such an event one person losing balance might fall against others, unbalancing them if they were not holding the handrail.

Recently our management took a



First row right to left:

(Instructor Trainer) Arud Mohr, Asif Khan, Ahmad Badr El Din

Second row standing right to left:

Hashim Khawaja, Mohamad Junaid, Raqibul Alam, Ramadan Hammad



decision that will save hundred of thousand of Riyals in the process of changing the handrails on Madinah's Haram and Car park escalators. This decision was based on letting our personals not only to do the job, but to do it according the manufacturer instruction. For

this purpose we invited a service specialist from EHC (Escalator Handrail Company supplier of handrails to all escalator companies) to conduct two weeks training course on handrail vulcanizing, the method of jointing used by some companies like Thyssen and Kone, which requires certain expertise.

A German specialist conducted two weeks training course for 7 of our employees who will undertake the replacing of handrails in Madinah first, and later will do the same for Makkah's handrails totaling 600 units.

These 7 technicians were eager to learn in order to execute the company decision as they have already started replacing the handrails on Madinah's Escalators. We wish them all success in their future undertakings.

People's Corner

The EBM/Executive Director has approved the following promotions due to their excellent past performance and recommendation of their Management:

- ◆ Abdel Rahman Abdallah Murad Rahmatallah to Team Leader in Madinah Haram Cleaning.
- ◆ Adil Fadhil Masood Al-Sulaimani to Team Leader in Madinah Haram Cleaning.
- ◆ Hashem Mohd Hashem Al-Najjar to Team Leader in Madinah Haram Cleaning.
- ◆ Abdel Rahman Bakr Omar Takrouni to Team Leader

in Madinah Haram Cleaning.

- ◆ Fayez Maaz Saieh Al-Howsawi to Electrical Technician in Makkah Haram Remote Projects.
- ◆ Abdallah Saeed Ali Al-Malki to Security Supervisor in SSCL - Civil Security Department - Jeddah.
- ◆ Badr Mohd Naher Al-Lugmani to Electrical Technician in Makkah Haram Remote Projects.
- ◆ Khalid Musa'ad Saeed Al-Sarani Al-Jehani to Electrical Technician in Quba Mosque.

The Newsletter committee congratulates all the above listed and wishes them additional success in their new assignments.



King Abdul Aziz Endowment Project, Makkah could be cited as an example where our affiliate concern, Saudi Services Company is committed to maintaining the project spotlessly clean around the clock.

SBG O&M has essentially gone high tech in setting new standards for the cleaning maintenance industry implemented in their projects Kingdom wide and now being imitated by our competitors. The King Abdul Aziz Endowment complex in Makkah is progressing aggressively to become our latest showcase in Quality Cleaning using the latest machineries designed under our guidance and recommendation to fit our CMTT process. We are calling it 'Quality Cleaning' since we aim to prolong the life endurance of the project's asset, making it the pride of the complex owners.

SBG's O&M division believes in innovation and continuous improvement in all aspects of its operation however small or insignificant this can be to some few. That's our strength and this is our tradition as we hold it dear to have created our own niche in that particular field of our operations around the Kingdom. This said, we have been and will remain alert to the innovations taking place in this industry as we shall stay focus on new technologies in the cleaning industry such as the development and deployment of nanotechnology and a new green cleaning process.

How your AC works

Air conditioning includes both the cooling and heating of air. It also cleans the air and controls the moisture level.

An air conditioner is able to cool a building because it removes heat from the indoor air and transfers it outdoors. A chemical refrigerant in the system absorbs the unwanted heat and pumps it through a system of piping to the outside coil. The fan, located in the outside unit, blows outside air over the hot coil, transferring heat from the refrigerant to the outdoor air.

Basic Operations

Most air conditioning systems have five mechanical components:

- a compressor
- an expansion valve or metering device
- an evaporator coil and blower
- a chemical refrigerant

Most central air conditioning units operate by means of a split system. That is, they consist of a "hot" side, or the condensing unit-including the condensing coil, the compressor and the fan-which is situated outside your home, and a "cold" side that is located inside your home. The cold side consists of an expansion valve and a cold coil, and it is usually part of your furnace or some type of air handler. The furnace blows air through an evaporator coil, which cools the air. Then this cool air is routed throughout your home by means of a series of air ducts. A window unit operates on the same principal, the only difference being that both the hot side and the cold side are located within the same housing unit.



The compressor (which is controlled by the thermostat) is the "heart" of the system. The compressor acts as the pump, causing the refrigerant to flow through the system. Its job is to draw in a low-pressure, low-temperature, refrigerant in a gaseous state and by compressing this gas, raise the pressure and temperature of the refrigerant.

This high-pressure, high-temperature gas then flows to the condenser coil.

The condenser coil is a series of piping with a fan that draws outside air across the coil. As the refrigerant passes through the condenser coil and the cooler outside air passes across the coil, the air absorbs heat from the refrigerant which causes the refrigerant to condense from a gas to a liquid state. The high-pressure, high-temperature liquid then reaches the expansion valve.

The expansion valve is the "brain" of the system. By sensing the temperature of the evaporator, or cooling coil, it allows liquid to pass through a very small orifice, which causes the refrigerant to expand to a low-pressure, low-temperature gas. This "cold" refrigerant flows to the evaporator.

The evaporator coil is a series of piping connected to a furnace or air handler that blows indoor air across it, causing the coil to absorb heat from the air. The cooled air is then delivered to the house through ducting. The refrigerant then flows back to the compressor where the cycle starts over again.



Severe Bleeding

To stop serious bleeding, follow these steps:

1. Lay the affected person down. If possible, the person's head should be slightly lower than the trunk of his or her body or the legs should be elevated. This position increases blood flow to the brain. Elevate the site of bleeding, if possible to reduce the blood flow.
2. Do not attempt to clean the wound.
3. Apply steady, firm pressure directly to the wound using a sterile bandage, a clean cloth, or your hand. Maintain pressure until the bleeding stops, then wrap the wound with a light dressing and secure it with adhesive tape. Most Bleeding can be controlled this

way. Call for emergency help immediately.

4. If the bleeding continues and seeps through the bandage, add more absorbent Material. Do not remove the first bandage.
5. If the bleeding does not stop, apply pressure to the major artery that delivers Blood to the area of the injury.
6. When bleeding has stopped, immobilized the injured portion of the body. You can use another part of the body, such as a leg or torso, to immobilize the area. Leave the bandages in place and take the person for immediate medical attention or call for emergency for help.