stages. The commissioning plan will provide the structure, schedule and coordination planning for commissioning. This plan will ideally be updated by the CA as the construction progresses. The commissioning plan will basically consist of, but not limited to, commissioning scope, Team contact information, Roles and responsibilities of all parties, communication and reporting protocols, commissioning overview and details of submittal activities, construction observations and checklists together with start-up activities, procedures for dealing with deficiencies, development and execution of test procedures, review of Operation and Maintenance manuals, development of systems manual and description of summary report, progress and reporting logs with the initial schedule.

The systems manual will include the operation and maintenance manual and additional information of use to the owner during the occupancy and operation. His will also include the other project information such as plans, specifications, approved submittals, operating and optimization procedures and additional information gathered during commissioning.

The commissioning objectives focuses on documented confirmation that the facility fulfills the specified performance requirements for the building owner, Operator and occupants. To achieve this successfully it is necessary to clearly document the Owner’s Project Requirements together with performance and maintainability and verify and document compliance with the criteria throughout design, construction, acceptance and initial operation phase. The following are some of the specific goals for the commissioning. Providing documentation and tools to improve quality of deliverables, verifying and documenting that systems and components perform as per the OPR, verifying that adequate and accurate documentation on systems and assemblies are provided to the owner, verifying that operating and maintenance personnel are adequately trained, providing a uniform and effective process of handing over the completed project, using quality based sampling techniques to detect problems in the system and verifying proper coordination among different components and relevant sub-contractors, vendors and manufacturers.

The CA, Contractor/s, System Designer and the owner’s representative will be involved in the commissioning. As part of the pre-commissioning activity, the contractor will carry out a complete testing and balancing (T & B) of all components and systems. This will require the involvement of specialist component suppliers (such as flow regulating valves, variable speed drives etc.). The contractor is totally responsible for the T & B activity. All T & B documentation must be made available to the CA.

During the commissioning process the contractor is obliged to provide all assistance to the CA. This could be in the form of providing access, providing measuring instruments as necessary, arrange for facilities for testing of capacity of chillers and other major equipment. The CA, during the commissioning phase will verify the accuracy of T & B data submitted by the contractor, verify that the HVAC control system complies with the contract. In the final acceptance report the CA will either confirm that the HVAC system has been completed and is performing in accordance with the design documents and contract documents and/or identify and list out the variances. The report may include a recommendation to rather accept or reject the HVAC system.

Eng. Wijitha Perera  
President Ashare Sri Lankan Chapter
WHEN IS AN AIR CONDITIONER DANGEROUS TO HEALTH?

An air conditioner can minimize dust, heat and humidity around you, but researchers have also found that air conditioners can have very negative effects on your health if there is no fresh air introduction into the conditioned space and your air conditioner is not cleaned regularly.

Many bacteria and microorganisms live in air conditioners. Among others, there is the most dangerous one called legionella bacteria, which can sometimes be fatal. It develops and reproduces in devices that are not maintained properly, and symptoms of the disease caused by the bacteria are weakness, fatigue, muscle pain, increased body temperature to 39 degrees, cough without expectoration etc.

The most endangered are the people who have respiratory problems, small children, the chronically ill, alcoholics and the elderly. If not detected in time this disease can end up with death, but if detected on time it can be successfully treated with antibiotics.

When it comes to danger, the second most dangerous disease that can occur from air conditioners is coxsackie virus, which is more and more widespread among people. It is believed this specific virus, that attacks the heart, is largely associated with the growing use of improper air conditioning.

Air conditioning are certainly first litter of infection if you do not service regularly.

By proper maintenance of indoor cooling unit means cleaning them regularly, and if you live in a major city and polluted environment, the maintenance involves frequent cleaning.

When regularly cleaning air conditioners you will avoid fatal consequences for your health, as well as those “mild”, equally undesirable ones such as sinus problems, conjunctivitis, ear infections, asthma, irritation of eyes, nose and throat, cough, strong headache and fatigue.

Well, feel free to cool yourselves, but before putting the air conditioner on, make sure to check the date of its last service.

Also keep in mind that the temperature difference between cooler intake and discharge of a properly working air conditioner must be greater than 6 degrees Centigrade.

PA
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Authorized Dealer

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CHAPTER NEWS

The Newsletter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers,
Sri Lankan Chapter - May, 2019

BUILDING OUR NEW ENERGY FUTURE
Sri Lanka Chapter - May, 2019

Randika with ASHRAE President

2018 CRC

Sri Lankan Participants

CRC 2018

Antalya Turkey

Sri Lankan Chapter President & Vice President in Business Meeting

CRC 2018 Sri Lankan Participants with ASHRAE President

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