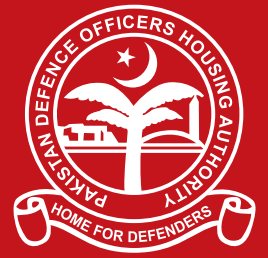


2008

DHA NEWS



An Annual Publication of Pakistan Defence Officers Housing Authority Karachi

DHA Power & Desalination Plant

First of its kind in Pakistan





اللَّهُ عَلَىٰ كُلِّ شَيْءٍ قَدِيرٌ

ان الله على كل شيء قدير

For Allah hath power over all things
(Ayat-77, Surah Al-Nahal)

MESSAGES

From the Editor's Desk

“There is no way to get round the great law of the universe – use or lose. Whoever ceases to climb begins to go down”.

The magazine has turned from biannual to annual publication; however the pervading enthusiasm underlying its contents remains indomitable. It is with immense pleasure that we present “DHA NEWS – 2008” to our esteemed readers. The unwavering commitment to keep the residents abreast with the latest developments and activities taking place in DHA will always remain the focus of the publication.

This issue contains features and reports on the emerging desalination technology that is used to convert seawater into fresh potable water in combination with the power plant. The articles pertain to the special features of the plant and the water and power distribution arrangements of the project. A comprehensive report on the inaugural ceremony of DHA Power and Desalination Plant captures the vision and significance of the cogeneration project in its essence.

Informative reports and narratives on the devastating rains in DHA last year have been included in pictorial-cum-narrative form. The reports analyze the causes of the unprecedented flooding, the impact of rainfall and highlight the details of various short term and long term measures being taken by DHA to address the infrastructure inadequacies and major shortfalls of storm water/sewerage disposal system in the area.

A special report on infrastructure development work going on in DHA Phase-VIII has been included in this publication which is quite informative. A resume of the updated revised master plan of Ph-VIII incorporating modern town planning concepts also provides interesting reading.

The Resident's Forum contains a panorama of interesting and stimulating features and encourages the readers to express their valuable views on DHA's development works. “Rain, rain go away” is an interesting satire written in a humorous vein, as usual, by Muhammad Aleem Sheikh.

Defence Central Library is an upcoming modern library in the metropolis that provides most conducive reading and learning environment to its members. A special feature on the facilities offered by the library makes an intellectually stimulating reading.

Comments and suggestions for overall improvement are always welcome. Your feedback will surely help us in making this publication worthy of your attention.

Happy reading.



Editor

Lt. Col Syed Rafat Hussain Naqvi (Retd)



This issue contains features and reports on the emerging desalination technology that is used to convert seawater into fresh potable water in combination with the power plant. The articles pertain to the special features of the plant and the water and power distribution arrangements of the project.

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DEFENCE OFFICERS HOUSING AUTHORITY, KARACHI
A Progressive Vision for the Future

Message From Commander 5 Corps & President Executive Board DHA

I am pleased to communicate with the residents and staff of DHA through the medium of Housing Authority's annual magazine 'DHA NEWS'; and to convey my best wishes and compliments to them.

The monsoon rains this year were devastating and caused unprecedented agony to the residents. I have directed DHA to immediately take stock of the technical, organizational and infrastructural inadequacies and to address these on a war footing. I am pleased to note that tangible measures have been taken and work has been initiated on a number of projects. The laying of a modern drainage network and up-gradation of sewerage system will remain the top most priority of DHA so as to make it functional before the advent of next monsoon.

It is a matter of great satisfaction that DHA's Co-generation Power and Desalination project, the first of its kind in the country, has been commissioned with its power and water distribution systems. Desalination technology provides a workable solution to address the shortages of electricity and water in coastal areas, like Karachi. DHA management deserves special appreciation on this truly remarkable achievement of national import.

The master plan of DHA Phase-VIII has also been revised and updated in accordance with the contemporary modern town planning concepts. I am confident that this will help in developing this largest phase as a model area with modern amenities and infrastructure facilities.

DHA is a prestigious residential estate of the country. I wish to emphasize upon the staff and management of DHA the need for dedicated efforts to further improve the living environments. I am confident that no effort will be spared in attaining the same and that DHA will continue to maintain its role as the trendsetter in the field of housing and community living.

I also expect DHA to respond effectively and efficiently to the needs of its residents, both in normal and critical situations. I am looking forward to the staff and the residents of DHA working collectively for achieving the goals of healthy, vibrant and efficient civic life.

I wish DHA residents all the success and a comfortable living in all times to come.

Lt. Gen Ahsan Azhar Hayat, HI (M)
Commander 5 Corps and
President Executive Board DHA



It is a matter of great satisfaction that DHA's Co-gen Power and Desalination project, the first of its kind in the country, has been completed with its power and water distribution systems. Desalination technology provides a workable solution to address the shortages of electricity and water in coastal areas, like Karachi.

Message From The Administrator DHA

It gives me great pleasure to felicitate the DHA residents on the eve of publication of Defence Housing Authority's annual magazine – 2008.

The unprecedented heavy monsoon rains last year caused large-scale havoc in DHA. The rains highlighted the inadequacies in our storm water/sewerage disposal systems. In response to the daunting challenge, work on an efficient storm-water drainage system and upgradation of the existing sewerage network has been initiated. The first phase of the project would be completed before the next monsoon season, Inshallah.

It is a matter of great pride and satisfaction for the Authority that the DHA's landmark Power & Desalination project has been commissioned. The Cogeneration Plant is the first of its kind in the country and would produce 3 million gallons potable water daily and 84 mega watt electricity which will help in overcoming the chronic water and power scarcity problems.

The master plan of Phase VIII has been revised/updated incorporating modern town planning features in it. The cul-de-sac concept and other contemporary residential and commercial features of the master plan would help in improving the traffic-ability, security and architectural layout in the area.

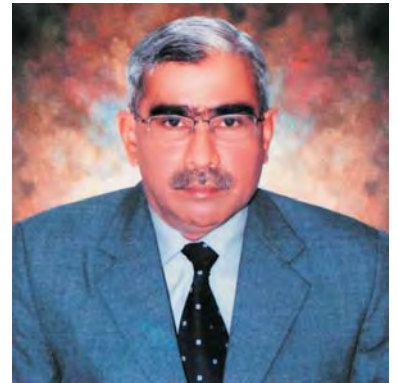
A number of other development activities are also going on within DHA. Most of the projects are aimed at improving the traffic flow within DHA. These include reconstruction and upgradation of major roads/avenues, construction of parking plazas, Gizri fly over, Commercial Avenue Ph-IV etc. Phase-I has been refurbished successfully while the long overdue development of Ph-VIII infrastructure work is in progress at full pace. Measures to improve solid waste disposal and resident centric complaint center system at CBC are in hand.

DHA, being the oldest and largest upper end urban development enterprise located in Karachi has its peculiar problems and dynamics. The civic infrastructure of old sectors needs to be continually refurbished and upgraded while provision of optimum civic utilities is to be maintained to meet the expectations of its valued residents. The staff and management of DHA imbued with a spirit of commitment and devotion are focusing on providing best possible facilities to the residents.

I wish the residents a very happy and comfortable living.



Brig Kamran Aziz Qazi, SI (M)
Administrator, DHA



The unprecedented heavy monsoon rains last year caused large-scale havoc in DHA. The rains highlighted the inadequacies in our storm water/sewerage disposal systems. In response to the daunting challenge, work on an efficient storm-water drainage system and upgradation of the existing sewerage network has been initiated.

Message From Secretary DHA

It is a matter of immense pleasure for me to extend my heartiest felicitations and good wishes to the residents and staff of the Defence Housing Authority on the eve of publication of DHA's annual magazine 2008.

DHA today stands at a critical juncture of its history. The Authority is faced with numerous challenges of varying dimensions ranging from refurbishment and renovation of old phases to completion of mega projects of great significance. The Authority is effectively responding to these challenges to maintain its reputation and credibility.

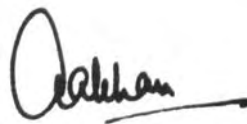
The unprecedented rains this year caused great hardship to the residents and DHA management responded to this natural calamity with promptitude. However an effective drainage system has now been planned for the entire area based on sound engineering principles. This is being done as part of an overall master plan and an amount of Rs. 750 million has been allocated for the project this year.

The construction byelaws of the authority have recently been revised and updated to make them more resident friendly. I am sure this will greatly facilitate the residents to undertake construction activities smoothly. DHA is constantly engaged in providing healthy environment to its residents by developing parks in residential areas. DHA Golf Club has been totally revamped with upgradation of 18 holes golf course along with night golfing facility. On the medical side, a Specialist Block "DHA Clinics" within the premises of existing medical centre has been setup to enable the residents to avail specialist advice at their doorsteps.

It is heartening that Cogeneration Power & Desalination Project has been commissioned alongwith its power and water distribution arrangements. The completion of this state-of-the-art project, first of its kind in the country, is indeed a matter of pride and distinction for DHA.

A concerted effort has also been initiated to encourage participation of residents so as to benefit from their suggestions while planning and executing important projects. The interaction and provision of feedback from residents will help the Housing Authority to chalk out future plans in a pragmatic and realistic manner.

I wish the residents and staff a very happy, comfortable and prosperous living.



Col (Retd) Ather Ali Khan
Secretary, DHA



DHA today stands at a critical juncture of its history. The Authority is faced with numerous challenges of varying dimensions ranging from refurbishment and renovation of old phases to completion of mega projects of great significance.

DHA Being Thorough and Through Summary of Year 2006-2007

The major thrust of DHA's activities and planning revolved around several important matters that mainly included approaching the mega projects, ensuring timely completion of other ongoing development works, consolidation of internal administration and to further enhance the standing of the Authority as a credible body.

The performance/achievements of the Housing Authority, during the year 2006 – 2007 had been tremendous; they can be reviewed as follows:

Development Works

Phase I – VII: The Engineering Branch can justifiably feel satisfied with performances of development work in Phase I -VII during the year. They were able to undertake a record expenditure of over Rs. 1 billion during the year. Major projects completed include



Newly carpeted Beach Avenue

Khayaban-e-Shahbaz, Beach Avenue and Degree College for Women in Phase VII (Extn). Whereas, substantial completion of Infrastructure development Phase I, Infrastructure Phase VII (Extn) and Creek Avenue (Bund Road) also took place in the same year.

Phase VIII: Area of Phase VIII is approx 45% of DHA, with 14,287 residential and 3,790 commercial plots. Master plan of Phase VIII was made in early seventies and its redesigning was carried out in 2005, where after it was decided to develop it. Construction of major roads has been planned in the first phase to make the area accessible for development. Entire Phase-VIII has been divided into five sectors (Sectors A, B, C, D & E). Infrastructure within the sectors will be completed according to the laid down priority.

Mega Projects: The mega projects like Creek City and Waterfront have moved forward at a mixed pace. The flagship of these projects i.e the Cogeneration Plant has been commissioned and its power and water distribution arrangements have been given final touches. Creek Vistas project of DHA will be ready by the beginning of this year.

Town Planning

There has been a satisfactory progress in three areas of work falling within the purview of Town Planning Dte, including: The revision of master plan of Phase 8 has been completed. The town planning of Phase VII extension along with its follow up work, which involved changes in nearly 150 individual plots, has been satisfactorily accomplished. Not just that, the phase has already been opened for construction as well. The third major achievement of Town Planning Dte was the revision of construction bye-laws. These have been brought in conformity with the modern trends and have been made resident and community friendly. The bye-laws have been approved by the Executive Board and are currently under publication.

Education

As far as education sector is concerned, a new DA College for Women has been constructed in Phase VII (Extn). Intermediate classes in the disciplines of Science and Commerce have commenced. The educational institutions run by DHA include six Colleges, five High Schools and eight Montessori/Junior Schools.

Academic achievements of students of DA colleges and schools had been remarkable this year again, as always; securing top positions in HSSC/Intermediate, Graduation and Masters' examinations held by the Karachi Board and Karachi University, respectively.



A view of new College for Women, in Phase-VII Ext

Miscellaneous

Clubs: DHA Golf Club has been completely revamped with up-gradation of 18 holes golf course with night golfing facility. Facilities like Convention Centre, Shopping Plaza and Marriage Hall have been



A view of DA Country & Golf Club

added. The work was undertaken by a Malaysian Company M/s Sysmax (Pvt) Ltd. Up-gradation of facilities in various other clubs forms part of the current year's plans.

Health: As far as Health Sector is concerned a Specialist Block by the name of "DHA Clinics" was set up in April 2007 to enable residents to seek specialist advice at their door steps, away from the city.

This was an overview of the activity profile of DHA during the year that has just passed. While DHA's achievements may be worthwhile their challenges are formidable. The recent rains have exposed genetic deficiencies in the services and infrastructure and have pushed us into reviewing our priorities.

DHA's foremost priorities for this year include:

- Laying of drainage and sewerage system (enough to withstand the next rains).
- Eliminate/postpone all other projects which distract from the work on drainage and sewerage.
- Consolidate/expedite on going works.
- Strive to acquire land for next phase of DHA.
- Shift maintenance responsibilities to CBC and to undertake other cost cutting and revenue enhancing measures (particularly waterfront projects).
- Focus on enhancing the image of the Authority as a credible, professional and responsive body. ■

DHA: A Residential Estate Contributing to the Society

Pakistan Defence Officers Housing Authority (DHA), started under the name and style of Pakistan Defence Officers Cooperative Housing Society (DOCHS) on 23 March 1953. Later it was converted into an Authority and renamed as Pakistan Defence Officers Housing Authority in August 1980. The Society made a humble beginning with an allotment of a mere 76.2 acres of land in 1956. It has come a long way since; what was DOCHS in 1956 is now DHA Phase-I only.

DHA is playing a pivotal role in not only providing exquisite living environments and facilities to its residents but is also contributing towards the growth and development of society. Some of the notable contributions are recounted below.

DHA Educational Institutions

DHA has a wholesome education system with a network consisting of six Colleges, five High Schools and eight Montessori/Junior Schools. A new Defence Authority College For Women has recently been constructed in Phase-VII Extn where Intermediate classes in disciplines of Science and Commerce have already commenced. DHA educational institutions provide quality education in a disciplined and intellectually

vibrant academic environments under the guidance of experienced faculty. The focus remains on inculcating such traits amongst students



A view of DHA main office

that help to produce confident, competent and productive individuals who can take up the challenges of the future.

Defence Central Library (DCL)

DCL is one of the prime institutions of DHA that provide stimulating environment for promotion of knowledge, research and readership in

ABOUT DHA

the society. The library has over 57,000 collection of books, subscribes to 27 national and international newspapers, magazines and provides state-of-the-art modern Audio/Visual facilities in a congenial environment to its members. Library information service is computerized, maintains complete data of books inventory, membership record, accounts, besides members' check In/Out record at reception and facility of borrowing books. Connectivity with Digital Library of Higher Education Commission is yet another feature of significance. DCL is also a fast emerging linguistic cum socio-cultural centre of the metropolis.

DHA Clubs



An illuminated night view of DA Creek Club

DHA is mindful of the need of quality entertainment for its residents. In this perspective, various clubs are run and operated by DHA, which provide exquisite recreational, entertainment, sports and dining facilities.

DHA Mosques

DHA is managing/administering 25 mosques for the benefit of the residents which run under its direct supervision. Their activities are managed under a policy aimed at promoting religious harmony, peace and love among Muslim brethren.



An angular view of a DHA Mosque

Health Facilities

A Specialist Block by the name of "DHA Clinics" has been setup to enable residents to seek specialist advice at their doorsteps, away from the city.

DHA's Mega Projects

DHA has launched some mega projects in recent years. These development projects are presently in various phases of planning, execution and completion and will go a long way in maintaining the versatility and efficacy of the Housing Authority. The important mega projects include Creek Vistas, Water Front Developments, DHA Co-generation Power & Desalination Project, Refurbishment/Renovation



A view of Creek Vistas, a Mega Project of DHA

of old phases of DHA, Modernization and Expansion of Defence Authority Country & Golf Club and state-of-the-art Infrastructure Development of Phase VIII. DHA is thus transforming life style in Karachi by introducing high living standards, healthy surroundings and an aesthetically vibrant environment.

Modern Sewerage System in DHA

In the wake of the havoc caused by rains last year, DHA has embarked upon a project of laying a modern drainage system and upgradation of sewerage system. A sum of Rs 750 million has been allocated by the DHA Executive Board for the drainage project for the fiscal year 2007-2008 while the entire project would be completed in 2-3 years in a phased programme. The consultant would employ precast modular design for building the new drains for Phase-I of the project, to be completed by 31 July 2008.

Safe Transaction of Property in DHA

Were someone to ask what is DHA's biggest achievement over the years, one would simply sum it up in one single word-Trust. DHA has won the trust of its investors and would-be investors alike. DHA Transfer and Record Directorate provides securest transfer of property service. The information about property in DHA is computerized, safe and information about property is protected to the highest level to obviate chances of fraud or double allotment.

DHA today is a first choice residential area for the affluent, and a safe haven for investors. But that does not mean the Authority can rest on its laurels. The struggle to achieve better results than ever before is perpetual. ■

PROJECTS

Honouring the Flag of Achievement DHA Sea Water Desalination and Power Generation Plant Pioneering Towards New Horizon

It gives me great pleasure to present a review of DHA Cogen Ltd., its evolution and achievements in the year 2007. By the time this DHA NEWS is in your hands this plant will be producing water for the CBC/DHA through C.S. internally cement lined 20 inches diameter pipe line water transmission networks and will be generating power to its full capacity for the KESC/DHA PH-VI and Creek vistas electrical net work through two independent 132KV transmission underground cables. We hope that this



A seaside view of DHA Power & Desalination Plant

contribution from DCL may add to the comfort of respected residents of Defence Officers Housing Authority and will assist KESC in curbing the current energy shortage falls. During commissioning phase DCL is contributing between 10/20MW to the grid via DCL & Defence phase VI, 132KV transmission underground cable.

DCL Expedition

DHA in the year 2001, invited the bids from reputed manufactures for Supply of equipments, Civil works, Erection, Commissioning and Testing of Power and desalination plant with all accessories, ancillaries, electrical systems & all related instrumentation and control works including the Aux. Boiler of 16 t/h MCR, emergency safe shutdown diesel generator, high pressure gas compressors units, Seawater intake/outfall structures, drinking water potabilisation units and other related works. Siemens Germany,

the world renowned power plant manufacturer submitted their comprehensive bid in June 2001 and were declared pre-qualified in the year 2002 for the job. Sacoden International (Singapore) Pte Ltd. and DHA signed an MOU in September, 2002 as the first step towards the success. DHA COGEN LTD. commonly known as DCL came into existence on January 29, 2003 and established in the Quaid's city and



**Mr. Samiuddin Mirza
Senior Project Manager**

became a symbol of pride and progress for the people of Pakistan in general and DHA in particular with a crystal clear DCL mission statement; "To ensure the provision of safe, reliable, efficient and affordable water and electric power for the comfort of the prestigious residents of Defence Officers Housing Authority, Karachi, in unison with the broad economic and social policy objectives of Government of Pakistan".

The DCL Management is well aware of the changes taking place in the operating environment and has taken a number of initiatives to complete the project with in the safe international environmental limits. High quality, proven long performance record, effectively low Nox special hybrid type burners, 24 in numbers are installed on the gas turbine.

DCL enjoys the status of Pakistan's first Water producer from MED type seawater desalination process. DCL has always enjoyed impeccable reputation and with the dynamism and dedication of a pioneer has rendered valuable service in accelerating the pace of industrial development in the power and water sector. DCL management has accepted the challenge and played a pioneering role in desalination in Pakistan. While sharing in joyous celebration of running the plant, I hope for even bigger achievements in the years to come.

State of the art technology

DCL is a state of the art plant with a high level of sophistication and automation. The power generator is used as a self-starter to start the gas turbine and once the gas turbine has reached full

speed, the generator assumes power generation mode. All plant components are computer-operated to maximize control, safety and ensure optimum efficiency. This advanced automation technology (DCS) named TELEPERM XP (TXP) and PCS7 has been designed by Siemens, Germany. What comes ahead in this article touches upon the important components which enable such a high degree of automation possible:

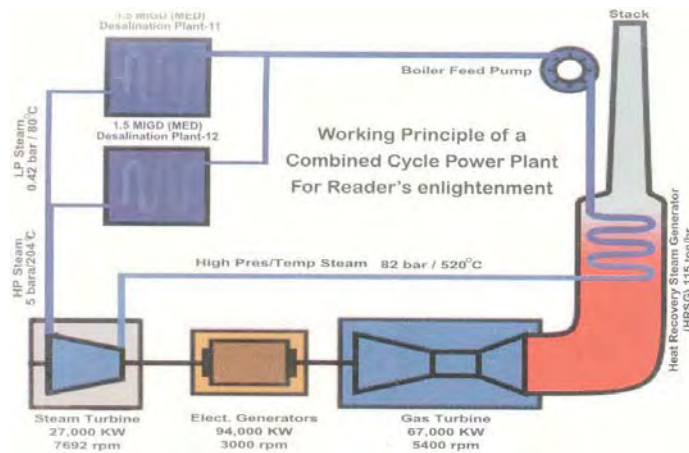
Let us try to educate our readers on the terminology “Cogeneration plant concept”.

The Cogeneration Plant Concept

A cogeneration plant is the one designed to produce electric power by a gas turbine driven electric generator, usually for a specific commercial enterprise, and to utilize the exhaust heat from the gas turbine to produce process steam for further useful work.

Combined Cycle Plant

A cogeneration power and seawater desalting plant represents a superior combination from an energy standpoint. Minimal part of the electric power would be used to operate a desalination unit, and maximal part would be sold to the local power company (KESC). The exhaust heat from the gas turbine would be used to generate more power from the Steam Turbine and then the exhaust steam would be used to operate a thermal MED plant.



The thermal MED unit would continue to operate at rated capacity. Such an arrangement would provide maximum flexibility to meet demand. The net thermal efficiency of a combined cycle power plant exceeds 50%. With a distilling plant added to the combined cycle power plant, (cogeneration), the overall thermal efficiency will be higher. Such creative engineering holds promise for significant cost reductions for seawater desalination. The strength of its brand & image is symbolized by its prominent performance in order to install the fast desalination plant.



A side angle view of the DHA Power & Desalination Plant

Multi Stage Flush Type (MSF)

Most widely used seawater desalting process, but now it is the most expensive plant.

Multi Effects Type (MED)

“Rejuvenated” by significant technical improvements over the past ten to twelve years. Total water costs are considerably lower than for MSF.

SPECIAL FEATURES OF DCL PLANT

Static Frequency Converter (Self Starting Device)

The gas turbine is started up using the generator with the aid of the static frequency converter. The gas turbine speed is amplified by the generator which initially serves as a self-starter. At this point the gas turbine is on a controlled fuel supply and the generator is being powered with pulses of energy to help the turbine achieve the required rpm. After reaching the desired rpm



An inside view of the Plant

where the turbine can generate enough motion on its own, the generator assumes the mode of an alternator.

The power section of the starting frequency converter comprises the following components:

- Supply via the start-up transformer
- Two fully controlled three phase bridges, line-side converter and generator-side converter
- Decoupling of the line-side converter from generator-side converter with DC link reactor in DC link.
- Line-side and generator-side voltage limiter.
- Radial fan for heat dissipation.

The Starting frequency converter is designed for four gas turbine starts in sequence, each with a maximum starting time of 240 seconds and subsequent break of 150 seconds. After this, the boiler of the steam section is purged for 600 seconds. The next start is performed 60 seconds after completion of the purging process. A cooling down time of at least 2 hours is required after completion startup routines.

Distributed Control System (DCS)

The advances in microelectronics in the form of large scale integrated circuits have enabled manufactures of distributed control systems (DCS) to make their packages smaller and more



Another angular view of DHA Power & Desalination Plant

reliable. In addition, new innovative communications systems and networks have combined to allow true distributed control to field devices. The future of DCS is directed towards full network functionality. Pure discrete inputs may only be used in situations where immediate inputs and outputs are required because of speed. This need for immediate inputs is few and far between for most mill processes. New processors are faster and scan rates can be as fast as 200 microseconds from sensed input to full output. These circumstances can be handled with discrete input/output modules in the main processor rack. Even in small

control systems the benefit is real. Networks as mentioned can save wiring costs and offset the cost of the intelligent devices. The distributed control system is divided in to two parts: TXP and PCS7. The TXP controls the Gas turbine, whereas the PCS7 controls the Steam Turbine and BOP.

Teleperm XP

Teleperm XP is a latest Distributed Control System which is based on UNIX operating system. The system is developed by Siemens. It is commonly used to operate power plants and process industries. Here the Gas turbine is controlled by TXP

The main software subsystems comprising the TXP are: AS 620, OM 650 and ES 680. AS 620 subsystems performs automation tasks for the industrial processes. The AS 620 acquires measured values and states from the processes, performs open and closed loop control functions and transfers the resulting manipulated variable values, correction values and commands to the processes. The other subsystems employ the AS 620 subsystem as an interface to the processes. The AS 620 transfers the commands from the OM 650 operators' communication and visualization system to the processes, reads information from the processes that are required by OM 650, ES 680; and transfers this information to the upstream operators' communication and visualization level. Various variants of the AS 620 are available to cater to the safety requirements of industrial measurement and control activities, such as turbine protection.

PCS7 (Process Control System 7)

PCS7 is a latest Distributed Control System which is based on MS Windows operating system. The system is developed by Siemens. It is commonly used to operate power plants and process industries. Here the Steam Turbine HRSG and balance of Plant is controlled by PCS7.

Machine Data Analysis System (WIN_TS)

The WIN_TS computer part of DCS provides real-time data analysis capabilities utilizing several tailor-made diagnostic modules that monitor key parameters of Gas Turbine operation such as the turbine outlet temperature profile, shaft vibrations and bearing conditions, et cetera. The goal of these WIN_TS modules is to catch hardware failures or operational anomalies before they reach the existing control system alarm limits. Early detection of these types of events or conditions can potentially prevent Turbine trips, forced outages, and additional impacts.

In the end, I would like to thank DCL management and fellow staff members for their continuous guidance and hard work and dedication which will help transform DCL into one of the most profitable organizations in Pakistan. We also thank the DHA, CBC, KESC, and SSGC for their immeasurable support in timely addressing the issues. ■

Messages on the Occasion of Inauguration and Groundbreaking Ceremony of DHA Desalination & Power Generation Project

Message from President Pervez Musharraf President of the Islamic Republic of Pakistan

The completion and commissioning of Cogeneration Plant under the aegis of DHA Karachi is a land mark event. It embodies both power generation and water desalination - a first undertaking of its kind in Pakistan.

In the context of rapid economic growth of the country and specifically of the city of Karachi, deficits of power and water have to be urgently redressed. DHA deserves commendation for pioneering the Cogeneration Project under a unique public-private sector regime. The success of the DHA Cogen Plant belies the misperception that public sector organizations are not responsive to market dynamics and lack professional expertise or commercial ethos to undertake important projects. I congratulate DHA for proving otherwise.

Pakistan has to take rapid measures to meet our growing energy and water needs essential for the industrial growth and domestic requirements. The rising cost of fuel and enhanced demand of water need both innovative technology and efficiency in utilization of both power and water at affordable rates. I am pleased that DHA Cogen addresses these demands. A confluence of state of the art technology from Siemens for power generation and Alfa Laval for desalination under an efficient and workable corporate and financial structure is a model worth emulating. All the coastal organizations need to look at this precedent which will provide them autonomy for their water and power needs.

I am also pleased to know that DHA is planning to replicate Cogen-II as an extension of Phase-I. I congratulate all the stake holders, that have worked as a team to make this project a success. ■

Message from Lt Gen Ahsan Azhar Hayat, HI(M) Commander 5 Corps & President Executive Board DHA

Today's inauguration of DHA Cogen is a momentous event. DHA Karachi had undertaken the responsibility of a Cogeneration Plant with dual purpose of power generation and water desalination 4 years ago. The purpose was to assist the city of Karachi to meet its growing demands of water and power and cater for needs of DHA for Waterfront Projects as well as Phase-VIII.

As a development organization we were aware that national economic growth required supplementation of capacities of utility companies. This led to conception of DHA Cogen Project, - an arduous undertaking by any standards. Cognizant of our civic responsibilities and potential of sea front, DHA planned and implemented DHA Cogen Project under a joint venture agreement with private investors Messers Sacoden - a valuable piece of land and liquid investment was provided that allowed 26% share holding of DHA in Cogen Project. Today we mark success of this relationship. DHA Cogen project will generate 94 MW gross power linked to KESC network and 3 MGD of water specific for DHA needs.

A total investment of approximately 110 million US dollars has gone into the project in the form of equity, loans and private investment. More significantly all financial, technical, contractual and administrative impediments were resolved in a professional, competent and expeditious framework leading to today's occasion. A special mention needs to be made of the support given by KESC, SSGC and Govt of Sindh without whose cooperation and diligence this project would not have succeeded, as also of my predecessors who had the vision to undertake the landmark project.

I would also like to re-emphasize DHA's commitment to all the investors in DHA Waterfront and Creek City Projects. No effort will be spared to provide these projects with utilities and services support synergized with their development goals. DHA Cogen represents this resolve. My felicitation to DHA, investors, technology providers and especially to DHA Cogen who worked as partners with DHA to ensure the success of project. ■

Mission Accomplished

By Muhammad Aleem Shaikh

It was a matter of great pleasure and satisfaction for General Pervez Musharraf, President of Pakistan, who had laid the foundation of the water desalination and power generation project in the year 2003, and also presided over its launching ceremony on February 11, 2008. It was surely, an occasion of pride and fulfillment for the various DHA administrations that braved the daunting process of the plan with grit and vision until its culmination during the tenure of the ongoing administration under its able and hardworking Administrator, Brigadier Kamran Aziz Qazi.

Built over a period of 3 years in Phase VIII of DHA astride the Arabian Sea, the co-generation and desalination plant is spread out on 10 acres of land. It was commissioned with the full technological backup of Siemens Pakistan, Siemens AG Germany and Alfa Laval of Sweden. Alfa Laval provided desalination units while Siemens Germany arranged for a state-of-the-art combined cycle power plant. The plant consists of a gas turbine, heat recovery boiler, steam turbine

and two desalination units to produce desalinated water through a thermal evaporative process. The combined fuel cycle utilizes exhaust steam from the steam turbine through a process of condensation and distillation to turn out water of very high quality.

According to the Senior Projects Manager of the plant, Mr. Samiuddin Mirza, who must have burnt much midnight oil (electricity?) supervising the developmental activity from the beginning to the end successfully, it is “a misapprehension to visualize the desalination plant as a treatment mechanism only; it is the process – the internationally accepted reality. The Multi Effect Desalination (MED) is in fact a thermal process; it has a hot end (heat input) and a cold end (heat extraction) that sets up a driving potential through the system. To carry out the required useful work, the system has to perform, in this case, to separate water from seawater”. The complete seawater intake filtration equipment and machinery was procured from Messrs. Passavant – Geiger.



President Pervez Musharraf, Governor Sindh, Dr Ishrat-ul-Ebad and Caretaker Chief Minister Sindh Justice (Retd) Abdul Qadir Halepota at the inauguration ceremony of DHA Water Desalination & Power Generation Plant

The DHA water desalination and power generation plant is admittedly, an excellent example of public-private sector partnership and provides coastal organizations a solution to gain autonomy in their water and power requirements. The plant is claimed to be cost effective and is structured on commercial basis with the DHA contributing 26 percent shares in the total lay-out amounting to nearly US\$ 110-115 million. The project was jointly financed by DHA and Messrs. Sacoden (Pvt) Ltd from Singapore and its associates.

The DHA water desalination and power generation plant is capable of producing 90-94 MW of power and 3 million gallons of water daily. The project operation will ensure supply of drinking water to the DHA/CBC water transmission and power to KESC's 132 KV transmission network. Above all, the project meets National Environmental Quality Standard (NEQ's) and none of the important elements of the environment especially human life, marine ecology and sea life will be affected adversely from the project activity. The plant is understood to have a pay-back period of five to six years and its life span extends to 30 years!

The President also performed the groundbreaking ceremony of Phase-II of the water desalination and power generation project, which would be initiated and built up close by the new plant in a relatively shorter period of time. The second plant is hoped to turn out another 3 million gallons of water and nearly 90-94 mega watt of electricity daily, for the greater relief of the citizens.

In his address, the President of Pakistan, took an overview of the various development projects in the country which were initiated by his government and are almost nearing completion by now. Terming the inauguration of DHA water desalination and power generation plant an historic event, the President urged to KPT, Port Qasim Authority, Pakistan Steel Mills, the City and the Sindh Governments to install desalination and power plants in their areas of jurisdiction, and that our futuristic plans should be to obtain at least 27 million gallons of water daily and adequate electricity for the growing population in the metropolis.



President Pervez Musharraf taking a round of the plant

The President particularly asked the Chairman, KESC, to invest more in the utility for the relief of the citizens of Karachi. The President announced a bonus of one month's salary for the DHA Cogen Plant workers in appreciation of the hard work they had put in. He also declared that no (repeat no) commercial construction would be allowed on the beach from McDonald to the Village Restaurant on permanent basis so that the citizens of Karachi could enjoy free access to this rare recreational spot. In the end, the President presented mementos to Mr Abdulaziz Hamad Al Jomaih, Chairman KESC; Mr Azim Iqbal Siddiqi, MD SSGC, and Mr Haseeb Khan, Principal Representative, SACODEN Investment Singapore, in recognition of their support in building up the plant.

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Earlier, the Administrator DHA briefly traced the history of the project recalling defying challenges during the implementation process of the country's first water desalination and power generation plant and said that it was expedited due to the ready guidance from the Corps Commander, Lt. General Ahsan Azhar Hayat, who is also President of the Executive Board of DHA.

DHA Secretary, Col. Ather Ali Khan, thanked the guests and invited them to share refreshments with the President of Pakistan. DHA Khatib Umer Muhammad Asghar recited from the holy Quran with translation in Urdu. ■

Welcome Address by Administrator DHA

Opening Ceremony of Cogen Plant

It is a matter of immense pleasure for me to extend a very warm welcome to the honorable President of Pakistan and to all of you our valued guests, on behalf of President Executive Board DHA, Lt Gen Ahsan Azhar Hayat, all members of DHA Cogen Ltd and on my own personal behalf, on the auspicious occasion of the commissioning ceremony of DHA's Co-generation plant.

Let me at the outset recount to you the salient milestones on this long journey:- The idea of a cogeneration plant had been doing the rounds of DHA as early as the late 80s. After extensive in house deliberations and feasibility studies DHA's Executive Board decided to go for it. In 2001, DHA invited bids from reputed manufacturers of plants and related equipment. The project was processed under a transparent and competitive process.



Administrator DHA, Brig Kamran Aziz Qazi addressing the inauguration ceremony of DHA Water & Desalination project

Siemens Germany, the world-renowned power plant manufacturers were and Alpha Laval Sweden, the contemporary/desalination technology provider declared pre-qualified in 2002. DHA Cogen Ltd, commonly known as DCL finally came into existence in Jan 2003.

And Sir, you would recall that you had performed the stone laying ceremony of this plant on 20 Aug 2004, and today by the grace of Allah you are here to perform its opening ceremony. So, you can see that the journey has been long and laborious. It was not smooth all the way; in fact it was agonizingly slow and even frustrating at times. The fact that we have gathered here to perform its inauguration is a tribute to the commitment and perseverance of the entire team of DCL and all those who have been associated with the project over the years.

Three things directly contributed to the successful completion of the project:- Commitment of DCL team led by Mr Haseeb and support of Messers Sacoden, our main financiers. Professionalism of technology providers i.e. Siemens for power, Alfa Laval for desalination technology and the competent support of KESC and SSGC for evolving power and gas tariffs. And, most importantly the personal patronage of President Pervez Musharraf. Had it not been for your personal commitment and

involvement, we may not have seen this day today. It is a moment of deep satisfaction and pride for all of us at the DHA and DHA Cogen Ltd on this historic achievement. Finally it is indeed a matter of satisfaction that DHA cognizant of its responsibilities has played a major role in redressing shortfall of power of City of Karachi and water needs of DHA. A role if emulated by other agencies will make-up deficit of these services under a fast, efficient and viable structure. We have also in some ways belied the perceptions that public sector organizations do not understand the dynamics of corporate management.

We bow our heads in eternal gratitude to Allah for this momentous achievement. Let us at this moment pay a tribute to all those who contributed to the success of this project. I would like to make a special mention of all the previous administrators, officials of DHA Cogen Ltd, all the concerned officials of SSGC and KESC. Some of these people are still associated with the project while some have already departed for their final abode. This project is the first undertaking of its kind in Pakistan wherein both desalination and power generation have been undertaken. It is a joint venture between DHA and Messers Sacoden a Singapore based Investor. The project is structured on commercial basis with DHA having 26% shares and it has cost us nearly 115 million dollars.

The combined cycle power and desalination plant is being run on natural gas and the waste heat of the power plant is being used to desalinate water. The plant has a guaranteed life of 30 years. It is capable of, and is currently producing, 90 MWs of power and 3 million gallons of water per day. The power is being fed into the distribution system of KESC, with whom we have an agreement while Cantonment Board Clifton is purchasing and distributing desalinated water. DHA has developed Water Supply and Power Distribution Systems at its own cost. These systems have been laid and tested.

We are now confident that we can achieve more. I take particular pride in informing you that DCL-II i.e. extension of this project is on the anvil. In fact the water intake and outlet systems have already been co-opted in the Cogen Plant being commissioned today and land earmarked. We seek assistance from SSGC for provision of gas and KESC for tariff approval

At the end once again, I would like to thank all associated with Cogen to make the project a success. Especial thanks are to KESC and SSGC for providing all support and to DHA team which has worked with great professionalism. My special thanks to Cogen Management, foreign technology providers and for patronage of the Government and guidance of the President Executive Board without whose firm yet gentle prodding we would not have succeeded. ■

Dha Desalination & Power Generation Plant Salient Features

- The Desalination Plant has been established by DHA Cogen Ltd (DCL), a Company setup under a joint venture agreement between DHA and Messrs Sacoden (Pvt) Ltd from Singapore and its associates. The project will provide 94 MW gross power linked to KESC network and 3 MGD of potable water specific for DHA needs.
- The Plant has been built in DHA Phase-VIII astride Arabian Sea on 10 acres of land at an approx cost of US\$110-115 million in three years time.
- The project has been commissioned with full technological backup of Siemens Pakistan/Siemens AG Germany and Alfa Laval of Sweden. Alfa Laval has provided the desalination units while Siemens Germany has provided the state-of-the-art combined cycle power plant.
- The desalination plant employs modern multi-effect desalination (MED) evaporation technology, which makes the operating procedures highly efficient. The thermal efficiency of the combined plant ensures a highly competitive and affordable tariff of water and power.



- The project meets National Environmental Quality Standard (NEQs) and none of the important elements of the environment especially human life, marine ecology and sea life will be affected from the project activity.
- The Cogeneration Plant offers state-of-the-art contemporary desalination technology to redress scarcity of water and shortage of electricity in areas blessed with waterfront and is a project worth emulation.

Harbour Your Excitement at the Floating Ship

A noticeable change is about to take place at the shoreline of Karachi and all Karachiites will soon witness its splendour. What is it? Is it a boat ride, a cruise ship or simply a restaurant...? It is surprisingly the only stationed cruise ship in the world that is anchored right here in our beloved city of sand and



water, built by a group of overseas Pakistani entrepreneurs. The project is approved by Defence Housing Authority. It is named as the 'Floating Ship' and will serve as an entertainment lounge for people of various interests and age groups.

One of the most exciting and thrilling areas of this mega ship is the 'Kids Theatre' that would also be known as the 'Edutainment Centre. Here children will be presented with free documentaries of global inventions and discoveries focusing on science and technology.

This project is dynamic in a variety of ways because it presents sensational effects of virtual cruise ships and ocean turmoil of many world renowned ports while serving international cuisines. This landmark project will motivate intellectuals to put their thinking caps on and conceive and nurture biggest of ideas, especially to promote Pakistan as a land of opportunities. ■

Lining the Horizon with Prosperity

DHA Upcoming Projects

In an effort to make Karachi the most attractive tourists' city in Asia, DHA envisioned a shoreline project which would bring prosperity and add to the aesthetics of the city. The designated work is already in progress that mainly includes two major sections; DHA Waterfront and Creek City Master Plan. Some of the major and upcoming projects are as follows:

DHA Hospital

A 300-Beds Modern Hospital on 16 Acres land is planned to have general and specialized facilities/clinics with a potential of becoming a teaching hospital. The Sponsors of the project are M/s. IHG/MAS and financial returns to DHA are equal to 36% equity under the shareholding arrangement. The Shareholding Agreement & Land Lease has already been finalized with DHA. Soon the work will start on the project.

M/S Minhal (Pvt) Ltd

The Developer will construct a Shopping Mall (Phase-I), Office Tower and Residential Hotel Complex (Phase-II and III) as part of Waterfront Development in Zone 'A' measuring 58,000 sq yards. Contract has been finalized and land lease is being processed. Court cases have delayed the project for two years and phasing of the project is being reviewed.

M/S Eplanet

The project envisaged construction of 8 high-rise buildings as a Part of Waterfront Development in Zone 'E' on the land measuring 10 Acres. M/s ePlanet did not honor initial commitment of hiring a world-class consultant M/s Hellmuth Obata Kassabaum (HoK). Construction plans also were not in conformity with byelaws/ approval. Consequently DHA cancelled the agreement and lease agreement; the case is subjudice in the court of law.

M/S Emaar Giga International

The Developer will construct 8 x Residential Towers 8 x Office / Commercial Towers (30 storey each) including Villas, Town Houses, 5 Star Hotel including Amphitheatre. The Height of Building cleared by Executive Board DHA is 300 feet. Land reclamation has been completed by Emaar.



A sunset view of Creek Vistas

As per site conditions additional 33 acres of land shall be required to be leased to Developer and is under process with PQA to sublease this additional land.

Creek Vistas

The Project consists of 12 Towers comprising 16 Storeys of apartments, sponsored by DHA. The cost of the project is Rs. 3 Billion financed by allottees and is expected to be completed by June 2008 along with services/utilities.

Creek City Shopping Mall

A State of Art Shopping Mall having 0.5 Millions Sq ft covered area on 5.3 acres is planned in Creek City. Contract and land lease have been finalized and Rs. 1.1 Billion credited to DHA by the highest bidder as per contract. The project was stalled due to litigation with M/s Mall Developers who contested the award of work to M/s Global Haly. However, Supreme Court of Pakistan gave the verdict in favor of DHA. The project is expected to commence after approval of its Master Plan soon.

Creek Views & Creek Terraces

The project is having 22 Towers (16 to 20 Storeys with 1400 to 1600 flats with covered area of 6 Million Sq ft sponsored by M/s Creek Developers i.e. consortium of M/s BF and AKD. The cost of the Project is Rs.15 Billion with Financial return of Rs. 6 Billion to DHA in 4 years. Agreement has also been finalized and Rs 1 Billion paid to DHA. At present lease of land is being formalized. ■

DEVELOPMENT WORKS

Refurbishment of Commercial Avenue

DHA, Karachi is utilizing maximum of its resources to provide best of environment to its residents by constantly upgrading roads, sewerage and water supply network. Up-gradation of Commercial Avenue, is one of such projects, which will provide welcome relief to the residents. The project encompasses road construction, sewerage & water supply lines along the refurbishment of Commercial Avenue. Existing Sewerage & Water Supply lines were very old, damaged and insufficient to take existing loads. These lines are being replaced with bigger dia lines and state-of-the-art technology.

Total length of Commercial Avenue is 3.3 KM that connects Sunset Boulevard with Khayaban-e-Ittehad. A storm water drain runs in the centre of the Commercial Avenue. Improvement of Commercial Avenue is estimated at the cost of Rs. 226 Million and M/S ECIL (Consultant) is responsible for designing of road structure and storm Water Drain while M/s FWO is responsible for construction.

Width of Storm Water Drain gradually increases from 3' to 10'. Side drains are also provided to accommodate rain run off from adjoining Commercial lanes and these side drains are connected with main Storm Water Drain. Width of main track is kept at 22 feet while sides of Avenue are adjusted to property line.

The project started in March 2007 and total completion time is 18 months. To date, 50% of storm Water Drain has been constructed. New Storm Water Drain Roof Slabs are



Refurbishment of Commercial Avenue in progress



A view of refurbished Commercial Avenue Phase-IV

traffic worthy and perforations have been provided in the slab so that rain run off is accommodated in the main Drain.

In addition to the construction of Road & Drain, new sewerage lines and water supply lines on both sides of Commercial Avenue are being laid. Storm Water Drain from

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Masjid Bait-ul-Islam up to Khayaban-e-Bahria is almost complete while construction of road in this area is in progress. After having completed this portion through all angles and having opened this part for complete traffic, in next phase portion ahead of Bahria upto Mehmoodabad drain shall be undertaken for up-gradation. ■

A New Landmark in the Education Sector

DA Degree College for Women-II, Phase-VII Ext

Defence Housing Authority is very much keen to fulfill the substantial needs of its residents for healthier and hygienic livings. For this purpose a number of development projects have been undertaken to improve overall environment of DHA. Successful completion of Kh-e-Shahbaz and Degree College for women-II are good examples of this aspect.

Development and prosperity of any nation directly depends upon education of the people of that country. Higher the education level of the people, greater is the number of doctors, engineers, and other intellectuals among that nation.

In 2004, DHA launched a prestigious project of construction of Degree College for women II in Phase VII (Ext) in order to meet the needs of the hour. Initially the construction cost of the college was estimated at Rs. 100 Million which later on increased to Rs. 175 Million due to increased scope of work.

The College building was designed by a well known architect of the city M/s Akbar Mehmood Qaisar Association, creator's of "Karachi Grammar School, College of Business Management, Iqra University and Bahria University. Contract for the construction of Women Degree College was awarded to M/s Noble Enterprise that had successfully completed Women Degree College Phase-VIII, Carlton Hotel, Golf Club House and Administration Block of Country Club of DHA in the past.

In April, 2007, Administrator DHA while visiting the site set the target date to complete the college by the end of July, 2007 for forthcoming academic session in August, 2007. Despite plenty of

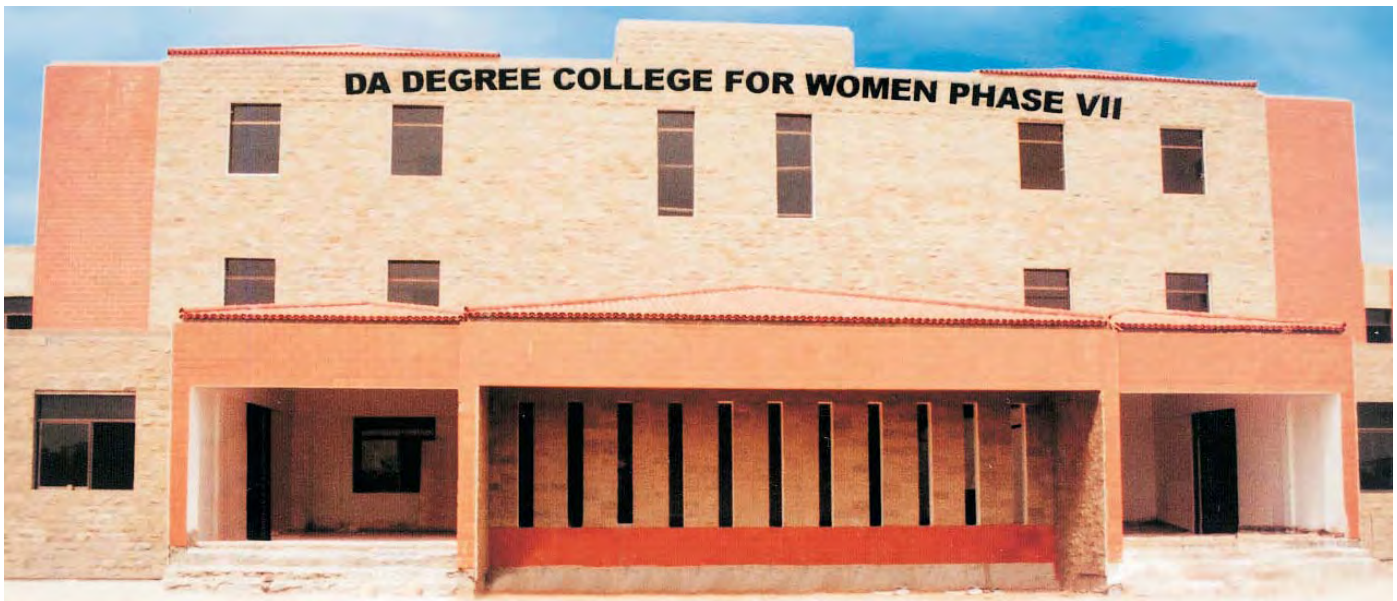
backlog, all stake holders accepted this challenge and went for all out efforts. This not only made the project completion possible as per contract but also paved the way for incorporation of a lot of additional works demanded by the user. Credit also goes to high ups of DHA who ensured requisite cash flow for DCW-II.

The college has been constructed in Phase-VII Ext at Kh-e-Mohammed Akram Shaheed with a covered area of 11,850 Sft. Pile foundations, raft and spread footings have been used depending upon the subsoil strata and dead/live loads. It has 36 class rooms, 8 science laboratories, a library and an auditorium of size 105ft x 107ft surrounded by college building is also there for extra curricular activities.

Construction of Women Degree College was really a collective effort by all stakeholders. Consultants, contractor and development directorate of DHA have played their key role in project completion. A number of demands and suggestions submitted by education directorate of DHA have also been incorporated during construction phase to meet their requirements.

While entering into Ph-VII Ext. from Kh-e-Ittehad either through Kh-e-Tufail Shaheed or Kh-e-Mehfooz Shaheed, the newly constructed college building presents an excellent and attractive view to the visitors in the area. It is, indeed, a beautiful addition to the educational institutions of Karachi in general and DHA in particular.

By the grace of Almighty, college session has started in the newly constructed college building under the principalship of Ms Tayyaba Mamoon, former principal Women Degree College Ph-VIII. ■



CLUBS

Fun For Everyone Defence Authority Creek Club

The Defence Authority Creek Club has achieved recognition as being amongst the posh clubs of the country. The club is spread over an area of thirty-two acres, with five beautiful and lush green lawns that provide a serene environment to its members.

Some of the club's recent activities are enumerated as under:

Comedy Mushaira

A Comedy Mushaira held in April 2007 was attended by ten famous poets including Mr Ather Shah Khan Jedi, Mr Khalid Masood, Mr Ameen Ul Islam Sheer Alam, Mr Aasi Ather and Ms Naheed, who recited their humorous verses. More than 600 DACC members enjoyed this light-hearted evening. Presence of a large number of teenagers on this occasion was also welcomed.

Pepsi Musical Evening

Pepsi Musical Evening was arranged recently, where Jawad Ahmed, Malkoo, Farah Hasan and Ilyas Khan performed and a large number of members enjoyed this programme.

Creek Summer Sports

Creek Summer Sports Hala was conducted with much success. More than 3400 sports lovers zealously took part in eleven events. Members highly appreciated the efforts of club management to make this event enjoyable for members of all ages.

Cooking Demonstration

Cooking demonstration was arranged in July 2007 by



Ladies enjoying the beautiful environment of Defence Authority Creek Club

Diamond Impex Corporation for their product "ITALIA" Olive Oil. A large number of members participated in the competition.

Mehfil-e-Naat

Mehfil-e-Naat was held in September 2007, where five famous Naat Khawans of Pakistan including Mahmood Ul Hassan,



Renowned anchor person and religious scholar Dr. Amir Liaquat performing at Mehfil-e-Naat at DA Creek Club

Dr Amir Liaquat, Alhaj Saddique Ismail, Muhammad Khawar Naqsabandi and Saba Sattar performed. Members enjoyed the rendition of Naats.

Taraveeh Prayer

This year Taraveeh Prayers were also arranged from 1st to 15th Ramadan. More than 500 members (ladies/gents) and house hold members offered Namaz –e –Taraveeh, which was led by Mr Hafiz Irfan Ahmed, one of the club members. Administrative arrangements for this occasion were highly appreciated.

Eid Millan Party

On 16 October 2007, third day of Eid, more than fifteen hundred DACC members enthusiastically attended the Eid Millan Party held in the club. As no guests were permitted on this occasion, therefore, the members and families thoroughly enjoyed the function.

Sham-e-Ghazal

A Sham-e-Ghazal with Mehnaz Begum and Jawaid Noor was also held at Movie Screen Lawn. A large number of members enjoyed the programme. ■

Socialite's Paradise Defence Authority Club

Defence Authority Club is the oldest in the series of Clubs in DHA. It boasts its name and popularity for its atmosphere and standard in general and for a variety of good food, film shows, tambola, and periodical musical functions in particular. Dining facilities are comparable to any top restaurant in the city. The premises remain under a constant dynamic process of uplifting and beautification.

The Club is tastefully furnished and fully air conditioned with twenty-five Guest Rooms for the members and guests. It has a modern and well equipped kitchen for preparation of a variety of food including Bar-B-Que, Fast food, Chinese and continental dishes.

The members/guests staying in guest rooms and carrying their laptops can avail internet facility by getting password from reception staff. Wireless hot spot facility has been provided round the clock in guest rooms. With newly installed in-house music system, members can now enjoy soft music at reception, dining halls and west lounge.

The Club has a modern bakery, where a variety of fresh items are made and served hot from the oven along with regular sweets and nimko. Crystal Room, TV Room and west lounge (Old verandah) have been renovated. The Club has laundry facilities for its members and guests staying in guest rooms. The new beauty parlor 'Sense of Touch' is a class in itself under the professional control of Peng Qureshi who needs no introduction.

All sports facilities are available in the club, including a beautiful swimming pool, renovated tennis courts and card room, billiard/snooker room and gymnasium with yoga centre for ladies. Air conditioned squash courts will undergo uplifting and renovation



A mesmerising view of the modern swimming pool of DA Club



Children enjoying in the small play area of DA Club

in the near future. All sports related items and accessories are available at the club Pro Shop.

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Building of a sports complex with more facilities to the members along with an elegant swimming pool for ladies is also in the pipeline. Additional/ separate gymnasiums for ladies and gents have been planned to facilitate present members and to attract younger lot to become future club members.

In the past one year or so DAC has remained hub of many social / cultural and sports activities such as musical evenings, sham-e-ghazal and children shows. These activities were largely attended by the members / their guests who enjoyed and appreciated the events. DAC strives to satisfy the needs of its members and guests, and make their time at the club more relaxing and memorable. ■

Enjoyment Has No Limits!

Defence Authority Sunset Club

DA Sunset Club has come a long way with its highs and lows. It is in a process of evolution and has now bettered its image as a more modern and well attended club. Its two separate gymnasiums have state of art machines from Life Fitness Series (USA) and can be claimed as one of the best in Karachi. The new swimming pools are first-rate for all weathers. Jasmine Hall has been completed into a fine dining restaurant. It has a Cigar Cove, a Coffee Corner, a Chinese restaurant and a small conference hall. All of this makes the



Some health conscious enthusiasts working on the fitness machines of the gymnasium at DA Sunset Club



People enjoying delicious food in the Banquet Hall of DA Sunset Club

Sunset Club an exotic place to be at.

As far as activities are concerned, there are vigorous sports activities, weekly tambola, talk forums on health and life style, concerts and light music programmes which keep the club active and lively. The club is also in the process of arranging a high tech theatre for movies and soon its members will experience the best screening around the city in a calm and peaceful environment. ■



An outer view of Banquet Hall at DA Sunset Club

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Club with a New Image

Defence Authority Zamzama Club

DA Zamzama Club now wears a new look as with the appointment of the new secretary, some renovations have been carried out in the club. The club has a beautiful air conditioned sitting room for members, with LCD TV where members can relax and enjoy. Also new reception counter has been installed and Admin and Accounts offices have been renovated. A refreshment room/bar in the squash court complex has been opened for members, which offers all kinds of hot and cold beverages, juices, ice creams etc.

Various sports events of international companies like Warid Ltd, JS Bank Ltd, and some educational institutions, continued to be played at the stadium.



A view of the refreshment area at the Club

A summer camp was organized by the club from 1st June 2007 to 31st July 2007, that offered swimming, squash, badminton, table tennis and cricket facilities to children from 6 to 18 years of age.

DA Zamzama club ensures that all sorts of sports facilities are provided to its esteemed members and guests along with providing a private space for relaxation and entertainment. ■



Members of the Club chatting in the refreshment area



A well furnished sitting room for the members to relax in a tranquil environment

Lining the Beach with Serenity

Defence Authority Beachview Club

DA Beachview Club has a unique distinction of being located on the Arabian Sea and its location on the Beach Avenue provides a picturesque view of the Sea. It is spread over an area of 12,291 sq yds in two distinct parts; the main club and the sports complex.

The Main Club

It has a beautiful, centrally air conditioned Banquet Hall, which can cater to big parties of up to 200 persons sitting and buffet for 300 persons. Apart from the Banquet Hall there are eight fully furnished air conditioned guest rooms, air conditioned billiard rooms, a centrally air conditioned dining hall, where about fifty persons can dine in and a VIP Lounge to accommodate about fifty persons. The club is coming up with a Library having 500 books and movies, which will provide a refreshing environment to the club members. The club lawns located in the Main Club and Sports Complex have a capacity to accommodate



An artist performing at the musical evening held at the Club



Members enjoying the activities at the family get-together.

about 500 guests at a time. The club has not ignored young kids, there is a small children's park with a number of playing gadgets.

Sports Complex

Sports Complex comprises 3 x wooden floor squash courts with one side glass wall, 2 x deso turf tennis courts, indoor wooden floor Badminton and Table Tennis hall. There is a facility of air conditioned Gymnasium and a covered swimming pool. Apart from all these highlights, there is a yummy Snack bar for tired players to rest and relax.

Routine Activities

Weekly game of Tambola is held every Friday with excellent meals served to the participants. Keeping the young members of the club in mind, English movies are screened every Saturday in the front lawn. Whereas, special Buffet Dinner is available every Sunday with live singing in the Main Club.

Other occasional activities include, regular Musical programmes, Mehfil-e-Milad, Eid Milan Party, Grand Tambola, Mini Grand Tambola, Family get together /functions, Private parties, Food festivals and Annual Sports competitions.

Recent Events

Family get together was held in the club in June 2007 with presence of almost 800 club members and their households who made it an "Exclusive Event." Members enjoyed the Music and complimentary Hi-Tea.

Mini Grand Tambola

Mini Grand Tambola was held in August 2007. Besides expensive houses, lots of attractive gift hampers were given to



A winner of Mini Tambola receiving a gift hamper.

the participants. The occasion was largely attended and liked by the members and their guests.

Prize Distribution Ceremony

Prize Distribution Ceremony for Annual Sports Competition was held in Sept 2007, where Brig (R) Syed



Secretary DA Beach View Club is giving prize to a winner

Khurshid Alam, Secretary DA Beach View Club was the Chief Guest. The participation of young household members was encouraging.

Eid Milan Party

To celebrate Eid ul Fitr, an Eid Milan Party with Buffet Dinner, Live Singing, Funland for kids, Ice Cream, Pop Corn, Cotton Candy, Pan and Kashmiri Chai (All Complimentary) was also held and greatly attended by almost 1400 members.

Futuristic Planning

A futuristic plan is in hand for the construction of a multi storey building at the present site of Beach View Club, with maximum glass view overlooking the Arabian Sea, housing all possible modern club facilities of the international standard. Contract has finally been awarded to M/s. Habib Fida Ali for the construction of New Building. Salient Features of New Club

Design are as under:

- Multi storeyed, building with maximum Seaview
- Elevated ground floor (10 ft above ground)
- About Forty Super Luxury Guest Rooms including Six Presidential Suites
- Spacious Banquet Halls
- State of the Art indoor Games
- Bowling Alley
- Sauna, Jacuzzi
- Food Courts
- Two Level basement Parking (200 Vehicles)
- Swimming Pool



An artistic view of the futuristic plan for the construction of a multi storey building at the present site of Beach View Club

The Beachview Club is not just poised to be a beautiful architectural marvel from the outside, there is a lot of planning being done for the inside too: a well-planned basement parking, elevated ground floor, lobbies/display centre, food courts, conference hall, etc.

Over a 100 world class guest rooms, all facing the Arabian Sea, two-stage tunnel approach to beach and underwater aquarium tunnel, all indoor sports facilities including a bowling alley, beach/water sports complex and, if it is of any comfort, a terraced structure front elevation.

Ground breaking Ceremony is expected in June 2008, while completion is expected within a time frame of 2 to 3 years. During the construction phase of the main building, the Club Management Offices will be shifted to Camp Office (Sports Complex) for the smooth running of routine club activities.

In short, members and guests are about to witness an altogether new and highly enhanced Club services along with a sea change in design and facilities. In a short time the Beach View will be transformed into a more sophisticated and vibrant place for DHA's elite residents and their guests. ■

Let The Game Begin!

Defence Authority Country & Golf Club

Defence Authority Country & Golf Club (DAC&GC) is being redeveloped since 15 September 2004. It was to be completed by April 2006, but for various reasons its completion got delayed. However, now most of the facilities have reached completion stage, some of them have already been taken over while others are in the process.



A beautiful view of the renovated Club House.

Defence Authority Country & Golf Club's members can now enjoy an 18 hole golf course with night lighting and automatic irrigation system, Practice Range and its under ground car parking



The most modern practice range of the DA Country & Golf Club

Defence Authority Country & Golf Club's members can now enjoy an 18 hole golf course with night lighting , Practice Range and its under ground car parking plus canteen, BBQ spot, Maintenance building, Festival Plaza, Squash Courts, new Office and main Reception



New entrance gate of DA Country & Golf Club

plus canteen, BBQ spot, Maintenance building, Festival Plaza, Squash Courts, new Office and main Reception.

Facilities that are nearing completion include; Clubhouse with a restaurant, karaoke rooms, library and children play area, Swimming Pool, Gents changing room, Gymnasium (Ladies and Gents), Chalets.

Work on some of the facilities will start shortly, these include; Golfer's terrace, Cigar room, Cards room, Billiards room, Ladies changing room, Pro-Shop, Main Gate and carpeting of main road.

DAC&GC makes sure that regular tournaments are held every month to keep its members and guests entertained and prizes are awarded to the winners. Other events are not being organized regularly since functions hall and convention centers have not been completed as yet. ■



Deep-Sea Beauty

Defence Authority Marina Club

Capt (Retd) Asad Manzoor PN, Secretary DA Marina Club

When havoc lets loose elsewhere, tranquility still prevails at Marina Club; the only place where you can savour a lazy lunch and bask in the sun, listening to your favourite music and reading what you fancy. Marina Club is all about relaxation in a serene and exquisite ambiance, and enjoying yourself on water, or ashore.

At Marina, things don't happen with a bang, but slowly creep with a whimper, and always provide something out of the ordinary. Plans are on the anvil for a large clubhouse



An inside view of dining hall of Marina Club

with swimming pool, gymnasium, banquet hall and living accommodation.

This indeed would take time to acquire shape; nonetheless we have set out to sail and steering in that direction. Membership still is very scarce, and then when done, will be a distant dream. It's only a boat owner's paradise to relish and enjoy with family and friends.

We now have a party boat, large enough to host cruising and dining for over fifty people. If you are planning to throw a party out at sea with music and food, then ask for the booking of this boat from Marina Club. It's an experience that you will not forget, and your party will be the "Talk of the Town".

As far as menu is concerned, there is none since we more or less work like a home kitchen where you order what you



really want. Our members like to discuss with the chef on the availability of items and what he can do with his culinary expertise. Some even suggest a recipe that is served to suit your taste.

This is what Marina Club is about and unlike restaurants and other places, where tabulated menu is not in vogue; we really pamper you at Marina Club. ■

