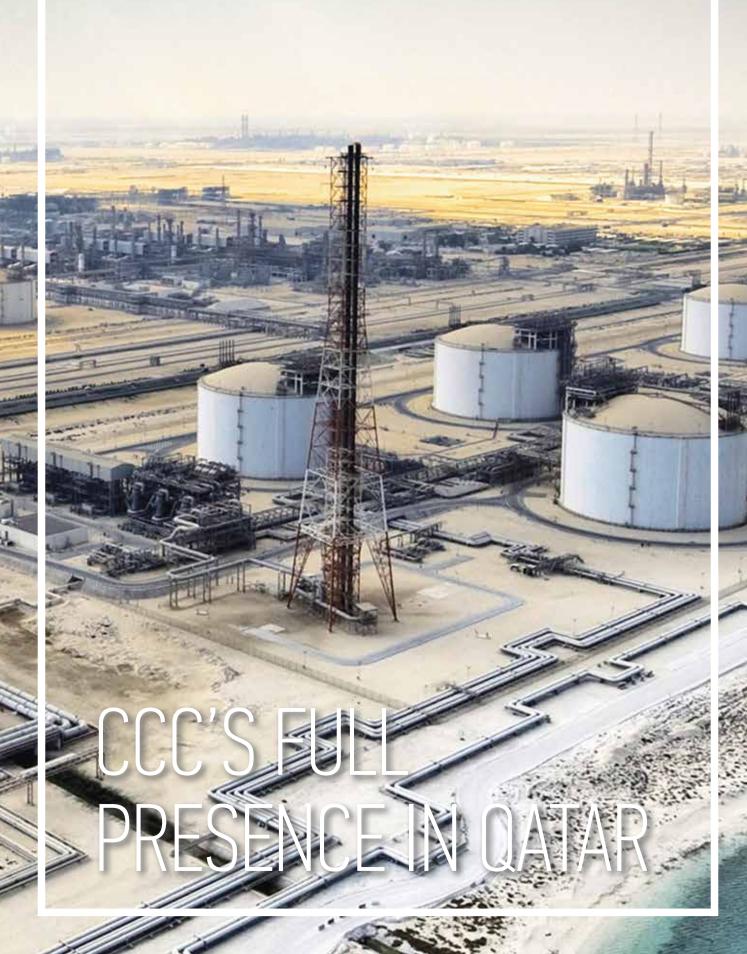
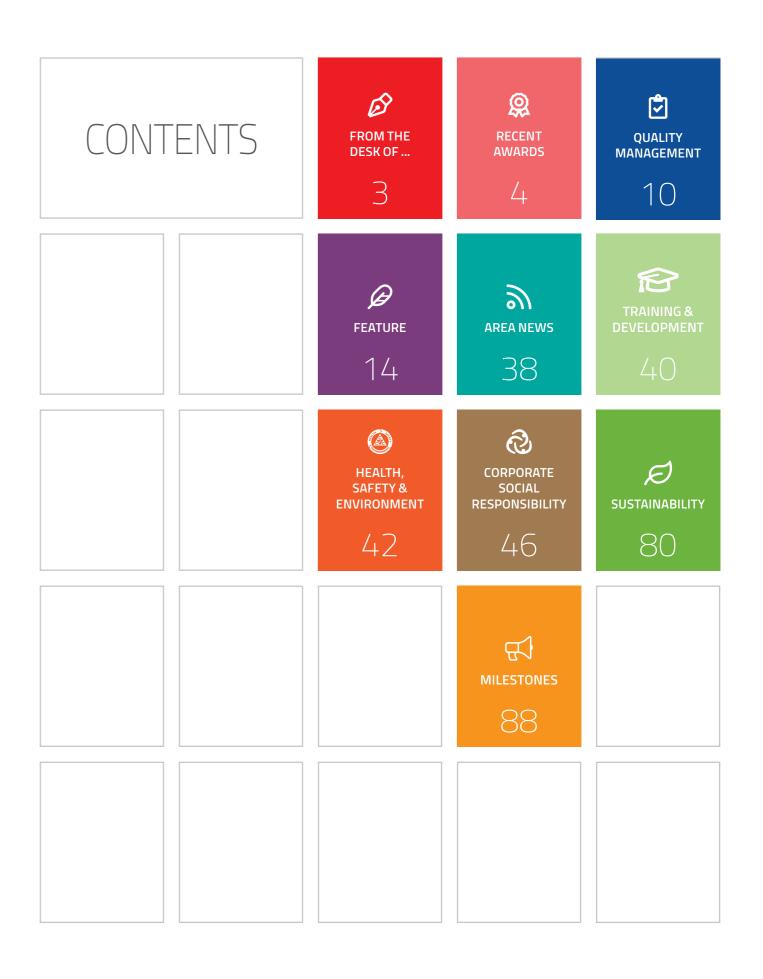
BULLETIN

CONSOLIDATED CONTRACTORS COMPANY Issue No. 136 / 1st Half 2024







FROM THE DESK OF ...



SAMER S. KHOURY Chairman

It has been almost 70 years since CCC was born, and our Founders had the vision to create a company that could build large and iconic projects that not many other companies could.

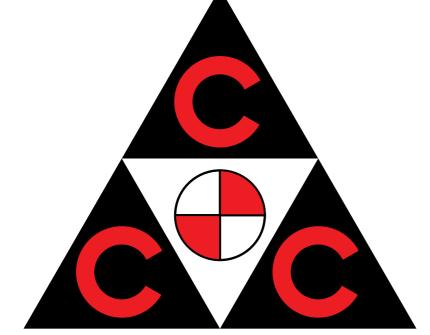
Today we can proudly say that in the course of the past 70 years, CCC has been the major force behind many iconic projects built in the Middle East, and we continue to be part of today, like the Metro project in Riyadh, the Airport in the UAE, the Green Hydrogen in Neom and the Oil and Gas Complex in Tengiz, Kazakhstan.

One of CCC's most significant areas of operations in the past 70 years is Qatar, where we have executed major oil and gas projects, in addition to stadiums, metros, bridges and harbours.

Currently, our two mega projects in Qatar, NFE and NFS, are also a testimony to our abilities and to the vision of our Founders. We are building 6 of the largest LNG Plants in the world each with a capacity of 8MT/year.

With both our past and present accomplishments, coupled with our skills and experience, I am confident that in the next decade CCC will continue to build and deliver innovative and high-quality projects, and for this I have all of CCC's staff to thank.





BULLETIN 136, 1ST HALF 2024

CCC's Footprint



EGYPT Alamein Proiect

Award Date: January 2022 Duration: 24 months Completion Date: January 2024 Client: New Urban Communities Authority - Ministry of Housing, Utilities and Urban Development, and the Consultants are EHAF Consulting Group

Project Brief and Scope of Work

The Phase 1 works include excavation, backfilling, deep and shallow foundations, insulation, concrete skeleton and buildings for three (3) of the seven (7) Marina Towers to be erected on Plots 1, 2 and 3.

EGYPT

Structure Package for Interlace Financial Center

Award Date: September 2022 Duration: 16 months Completion Date: December 2023 Client: Big S for Trading / Interlace for Real Estate Development, and the Consultants are GEBAL

Project Brief and Scope of Work

The scope of work includes the Skeleton Works for Two Administrative Buildings in the New Capital with 2 basements and 7 floors.

- Built up area for Safi = 34,318 m²
- Built up area for Interlace = 61,570 m²

EGYPT Construction of Villas in "Zone 3D/ Clusters A&B" for City Gate Project

Award Date: February 2023 Duration: 24 months Completion Date: February 2025 Client: Bawabet AI Sharq New Cairo for Real Estate Investments S.A.E (BASNC) **Consultant:** Engineering Consultants Group (ECG) and Turner International Middle East (TIME)

Project Brief and Scope of Work

The CCC scope of work consists of Construction of 422 Villas on Core and Shell basis including MEP first fix and Villas fences. Total BUA = 127,500 m².

EGYPT Structure Package for El Organi Headquarter Plot 23B.5

Award Date: November 2022 Duration: 12 months Completion Date: November 2023

Client: Organi for Real Estate Development, and the Consultants are GEBAL

Project Brief and Scope of Work

The CCC scope of work consists of Skeleton Works for Abnaa Sinai Headquarter in the New Capital with 3 basements and 7 floors. Total Built up area = 37,750 m².

EGYPT

The Ark Business District (Buildings nos. 1, 2) Phase 1A

Award Date: February 2023 Duration: 13 months Completion Date: March 2024 Client: The Ark Development, and the Consultants are ECG

Project Brief and Scope of Work

The CCC scope of work consists of Construction of the structural works of 2 Administration Buildings (with a total BUA of 51,745 m²), comprising of 2 Basement floors, Ground, mezzanine, 7 floors, roof, and upper roof.









> continued on page 6

EGYPT

Construction of Infrastructure, Roads and Landscape Works for "Zone 2D/Clusters A, B & C"

 Award Date: September 2023

 Duration: 10 months

 Completion Date: July 2024

 Client: Bawabet Al Sharq New Cairo for Real Estate Investments S.A.E.

 (BASNC), and the Consultants are RMC, SITES and ECG

Project Brief and Scope of Work

The scope of work under this Contract comprises of the construction, completion, commissioning, handover and maintenance of works related to the "City Gate, Zone 2D Infrastructure and Roads Works."

- The civil, architectural and mechanical works for the infrastructure, in addition to three types of rooms (distributer room, transformer room and TR&GR room).
- Hardscape Works.
- Planting Works *(optional)*.
- Irrigation Works (optional).

EGYPT

Four Seasons Hotel Cairo Capital Project

④ Infrastructure Package (CP08)

Award Date: June 2023 Duration: 7 months Completion Date: May 2025 Client: Madinaty Company for Touristic and Urban Projects (S.A.E.), and the Consultant is Hill International

Project Brief and Scope of Work

The scope of work includes the Infrastructure Package (CP08) includes all infrastructure works of the Project, in phases / sections to suit the required completion and operation dates of the Project components.

SAUDI ARABIA Al Nahda Entertainment Complex, Exit 15, Riyadh

Award Date: November 2022 Duration: 40 months Completion Date: April 2026 Client: Saudi Ventures Entertainment Company (SEVEN), and the Consultants are AECOM

Project Brief and Scope of Work

Exit 15 - Al Nahda Entertainment Complex is aimed to be a flagship project and the first of its kind in KSA. The Project comprises both building elements and spatial elements that create a new genre of public space that ties the district zones with the building

envelope. Each district zone will house unique entertainment/attractions components, retail, food & beverage options, and circulation areas.

The Building Elements include snow park and ski slope, water park, FEC boxes, cinemas, 'Black Box' boxes, wellness, carousel, zipline, climbing wall and other indoor FEC boxes, car park structures and servicing / loading docks.

The Spatial Elements include central plaza - Atrium and Circulation Areas, Arrival/Welcome areas, district 'hubs', performance spaces, amphitheaters, stages and landscape.

SAUDI ARABIA General Contract Package (GC1B) Zuluf Onshore Oil Project

Award Date: February 2023 Duration: 31 months Completion Date: October 2025 Client: JGC Arabia Co. Ltd., and the Owner is Saudi Aramco

Project Brief and Scope of Work

The project comprises the construction of the following units:

- Two (2) GOSP Trains (300MBCD each)
- Two (2) Gas Compression Trains
- Hot Oil System
- Crude Storage & Shipping
- Flares, Common Utilities & Interconnecting Piperacks.

CCC scope of work includes civil works for Packages GC1A & GC1B in addition to structural steel, mechanical equipment & piping erection as well as electrical & instrumentation, painting, insulation works and facility pre-commissioning for Package GC1B.

QATAR North Field South Onshore Project

Award Date: May 2023 Duration: 64 months Completion Date: February 2029 Client: Qatar Gas Operating Company Limited

Project Brief and Scope of Work

The Project is set to develop additional gas from the North Field opposite to Ras Laffan and build two new LNG mega trains (8 MTPA each) with inlet facilities, offsites, utilities and infrastructure to support the processing units.

In 2028, when the project is completed, Qatar's LNG production capacity will be increased from 77 to 110 from NFE and to 126 MTPA from NFS.

CCC Construction scope of work include two Process Trains, 20 EPC buildings, and several offsite areas (*flare, inlet facility, slug catcher, chemical storage, CO*₂ sequestration, waste area).

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SAUDI ARABIA

Royal Commission for AlUla Headquarter Office & Business Park

Award Date: December 2023 Duration: 29 months Completion Date: May 2026 Client: The Royal Commission for AlUla, and the Consultants are Hopkins Architects

Project Brief and Scope of Work

The proposed development comprises delivering a high-class new headquarter buildings housing offices, meeting/event center, fitness center and other support areas such as day care facilities, clinic, RCU academy, retail, F&B and parking in addition to all infrastructure works, landscaping and helipad.

RCU HQ Offices includes three separate buildings of 2B + G + 3 + R connected by external pedestrian walkway bridges with a common basement and a total BUA of 116,712 m².

CCC scope includes earthworks, structural, architectural, interiors, MEP, external works and loose FF&E. Excluded are Fitouts for F&B units on the west side, Day care area (to be delivered as core & shell), BMU MEWP, Site Demolition, Site Clearance and Site Hoardings.



∠ continued from page 7

KAZAKHSTAN Dunga Phase 3 - F.H Lines

Award Date: November 2023 Duration: 9 months Completion Date: August 2024 Client: Total E&P Dunga GmbH

Project Brief and Scope of Work

The scope of work comprises the installation of trunklines and flow lines including valve pits, spools, pig launcher and other types of equipment skids and miscellaneous electrical works, in addition to refurbishment of well pads (18 nos.).

LIBYA Derna Bridge No. 4

Award Date: March 2024

Duration: 6 months

Completion Date: September 2024

Client: NEOM Real Estate Development & Trading & Investment, and the Consultants are El-Raeid Engineering Consultants (Mohamed Shohayeb & Partners)

Project Brief and Scope of Work

The CCC scope of work consists of Construction of Bridge No.4 with a length 415 m & width 25 m (With 2 lanes for each direction), the project comprising of:

- Demolish works for the existing damaged bridge.
- Soil investigation.
- Piling works.
- Earthworks.
- Concrete works = 24,065 m³
- Steel reinforcement = 5248 ton.
- Road works.

• LIBYA

Provision of Basic Design and Engineering Services of the OSBL Units of the South Refinery

Award Date: September 2023 Duration: 6 months Completion Date: March 2024 Client: Zallaf Libya for Exploration & Production of Oil & Gas, and the Consultants are Hill International (acting as PMC appointed by Client)

Project Brief and Scope of Work

FEED Services and issuance of +/- 20% EPC Cost Estimate for the OSBL scope & the ISBL Construction Price Cost Estimate.

The ISBL & OSBL scope comprises of:

- A new 30 kBPD capacity oil refinery to convert at least 30,000 BPD of El Sharara crude into gasoline, diesel, kerosene and LPG.
- The refinery production units are licensed by M/S Honeywell UOP (referenced ISBL) & comprise of a CDU, naphtha hydrotreating unit, a naphtha splitter, an isomerization unit, a semi-regenerative reforming unit and kerosene treating and LPG treating units.
- OSBL includes storage facilities, buildings, workshops, stores, lab, utilities, power & utilities that will maintain the project integrity.

LIBYA Derna Bridges No. 9 & 10

Award Date: January 2024

Duration: 7 months

Completion Date: October 2024 Client: NEOM Real Estate Development & Trading & Investment, and the Consultants are El-Raeid Engineering Consultants (Mohamed Shohayeb & Partners)

Project Brief and Scope of Work

The scope of work consists of the construction of Bridge No.9 (77m length) and Bridge No. 10 (92 m length), with structural steel arch on reinforced concrete foundations and piling, including demolishing of existing concrete/steel bridges.



QMS Training **Migrating the** QMS Online Training to "Learning LMS" **Platform**



Article by: A. Papadopoulos

A Quality Management System (QMS) is most effective when all employees understand and apply the skills, training, education and experience needed to perform their roles and responsibilities.

Training is defined in **ISO 10015** as:

 "The process to provide and develop knowledge, skills and behaviors to meet requirements".

Competence is defined in ISO 9000 as:

- "The ability to apply knowledge and skills to achieve intended results".
- Note: Demonstrated competence is sometimes referred to as 'qualification'.

As per **ISO 9001**, it is the responsibility of top management to provide opportunities for people to develop the necessary competencies.



Quality Management System Training on Projects

Training requirements for CCC projects is covered by the quality management procedure QMP-GEN-005 "Training and Personnel Qualification". This procedure has been developed to ensure that:

- ▲ Personnel performing work affecting conformity to product requirements are competent on the basis of appropriate education, training, skills and experience;
- Training needs are identified and controlled; and •
- Required training programs are implemented, recorded and evaluated

The scope of this procedure applies to all CCC Project personnel and defines that they shall be competent and suitably qualified as per Project specifications to perform their work effectively.

Also, it ensures that CCC Project personnel are familiar with the Project plans and procedures, and aware of the relevance and importance of their activities and how they contribute to the achievement of Project objectives.



Online Training for the QMS Procedures

The CCC Online Training program is designed to provide Project Employees with the essential awareness regarding the CCC Quality Management System. Currently there are nine (9) online training courses available and four (4) more are gradually being migrated to the new "Learning LMS" platform:

- Quality Management System Introductory Course
- Preservation of Material and Equipment Course
- OMP-GEN-006, Field Purchasing
- QMP-GEN-012, Subcontracting
- QMP-GEN-016, Quality System Audits
- QMP-GEN-008, Control of Non-Conforming Product
- QMP-GEN-011, Inspection and Testing

Online Training in "Learning LMS" Platform

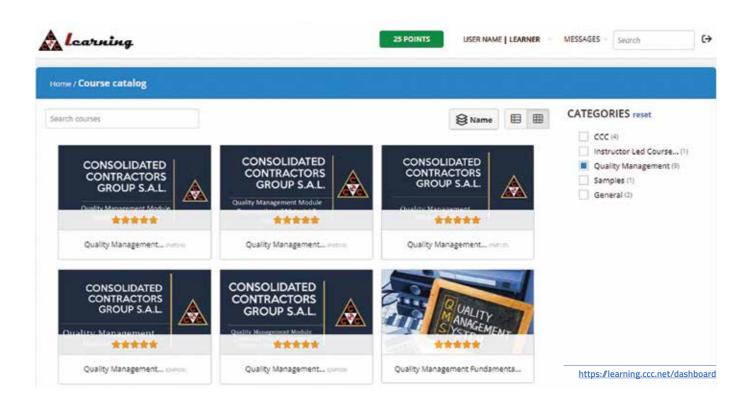
The new "Learning LMS" platform is a fully customizable online software application for the administration, automation, delivery, documentation, tracking, reporting of educational courses, training programs, and associated materials of learning and development programs.

The LMS is focused on online learning delivery but supports a range of uses, acting as a platform for online content and training courses in particular. The LMS is used to create professionally structured course content, ranging from courses and workshops to single videos or documents. The trainer can use the LMS to add various formats of text, images, slideshows, videos, pdfs, tables, links, interactive tests, etc.

Through the LMS, trainers can:

- create and integrate course materials,
- articulate learning goals,
- track studying progress, and

Trainees' exchange of feedback is possible through the LMS. Such feedback is a helpful instrument for trainers to improve their content and delivery, and ensures that trainees will feel at ease and involved.



QUALITY MANAGEMENT: QMS Training: Migrating the QMS Online Training to "Learning LMS" Platform

- OMP-GEN-018. Customer Feedback
- OMP-GEN-020. Certification & Handover
- OMP-GEN-002, Document and Data Control
- QMP-GEN-005, Training and Personnel Qualifications
- QMP-GEN-007, Material Control
- QMP-GEN-010, Inspection, Measurement and Test Equipment

align content and assessments,

- issue customized tests for trainees.

QUALITY MANAGEMENT: QMS Training: Migrating the QMS Online Training to "Learning LMS" Platform

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Starting a QMS Online Training Module in "Learning LMS" Platform

All CCC Project employees are given access to the "Learning LMS" platform. The platform is securely accessible at all times, from all areas and from all digital devices.

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The aim for each employee is to conduct individual QMS online training modules according to the guideline list (per Department/Discipline) specified in QMP-GEN-005, under the care of the Quality Manager. The objective is to complete each training module within the same day (and up to one week) of enrollment. At the end of each module, trainees can claim electronically their "Certificate for module completion". Trainees receive points of award in the platform when they attend training courses, while each completed QMS module provides PDUs (Professional Development Units) credited by the PMI (Project Management Institute).

The enrollment process is very simple and automatically generates electronic records of training; please follow the steps indicated below:

 Do the embedded guizzes in line with the course structure. • If you finish through the module content and pass all quizzes, you

At this point you can evaluate the Online Training course.

Last step, after you compete the Online Training Evaluation Ques-

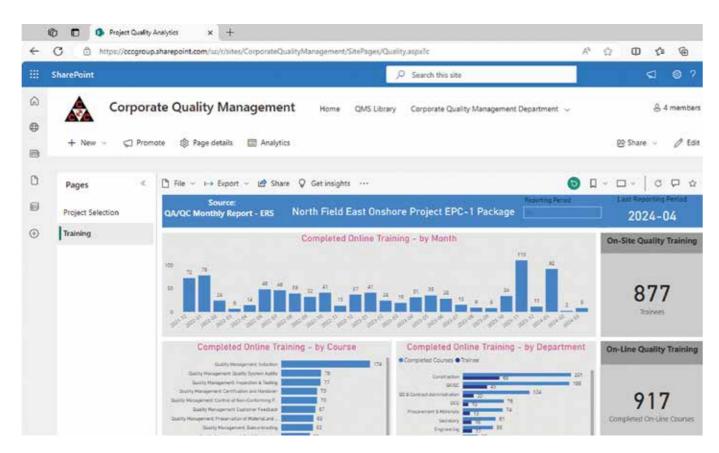
tionnaire, you can claim the "Certificate of Module Completion".

will have completed the module successfully!

- Open your internet web browser (preferably Internet Explorer 11).
- Go to given CCC Online Training link: <u>https://learning.ccc.net/</u> dashboard.
- Login using your CCC full E-mail Address (e.g. jsmith@ccc.net) and password.
- Click on the selected Online Training module.
- Start viewing/listening/reading the course content.
- QMS Online Training Analytics through SharePoint

The "Learning LMS" platform allows accurate gathering and reporting of training analytics per Project through SharePoint. Project Quality Managers can view the respective statistics and compiled charts on the "Project Quality Analytics" SharePoint dashboard.

Note: In case trainees face any problem related to the Online Training course, assistance is provided by the KM Department at learning@ccc.net.



Online training analytics (for Quality Management) include:

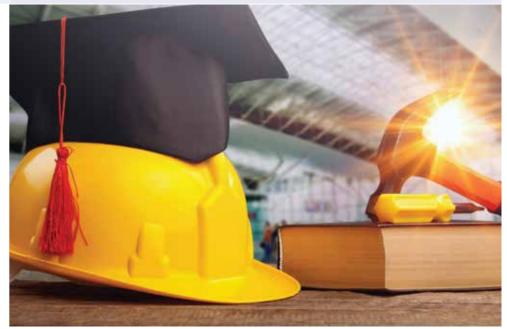
- Completed Online Training by Month
- Completed Online Training by Course

The Suite of Training Methods across CCC

Training and development processes for the whole CCC Group are described in procedure HR-PM-001 "Qualification, Training and Development" which follows the objectives set in CCC's Mission Statement and the "Core Values, Guiding Principles and Code of Practice".

Several training and development methods are utilised in CCC, covering different needs at different levels. The most practiced methods are:

TRAINING METHOD	
Induction and Orientation Program	Initial training for newly recruited
Graduates Development Training	Graduates' long-term developmer
Computer-based 'on-line' Training	Various on-line training courses.
Tool-Box Talks	Training of small groups of produc with emphasis on skills for safe p
HSE Awareness Training	Induction training for all project st
Quality Awareness Training	Induction training for managemer
In-House Webinars/Seminars	Various training courses develope
Trade Apprenticeship Training	Practical training for production la



References:

- Quality Bulletin #61
- CCC Bulletin #105
- HBR article, 2019: "Your Workforce is More Adaptable Than You Think'

CONSOLIDATED CONTRACTORS COMPANY



QUALITY MANAGEMENT: QMS Training: Migrating the QMS Online Training to "Learning LMS" Platform

- Completed Online Training by **Department**
- On-Site Quality Training (Cumulative)

BRIEF

l staff.

nt program.

ction labor at the start of a shift by a supervisor and HSE staff, practices, quality outputs, and existing technical issues.

staff upon arrival at the project.

ent & supervisory staff relating to ISO 9001 upon arrival at the project.

ed & instructed in-house.

abor with emphasis on local manpower.

Onshore LNG Facilities (Trains 12 & 13) Ras Laffan North Field South (NFS)

Article by: M. Tsepas

About North Field

The North Gas Field was discovered in 1971. With total recoverable gas of more than 900 trillion standard cubic feet, the field is regarded as the largest single non-associated gas reservoir in the world.

Commercial exploration began in 1991 and it has an average production of more than **700 mmscf**¹ per day of gas and **18,000 barrels** per day of stabilized condensate. Overall, North Field includes an area of 6,000 square kilometers.

Endowed with the third-biggest gas reserves in the world after Russia and Iran, Qatar is the largest Middle Eastern gas producer after Iran.

Project Details

The North Field Expansion Project, comprising the North Field South (NFS) and the North Field East (NFE) expansion projects, is said to be the industry's largest ever LNG project, which will start production in 2026.

The NFS project is the planned second phase expansion of Qatar's North Field, which will further increase Qatar's LNG production capacity from 110 MTPA to 126 MTPA by 2027.

The LNG project is operated by QatarEnergy

This award will cover the delivery of 2 mega trains, each with a capacity of 8 million tons per annum (*mtpa*) of Liquefied Natural Gas (LNG). It will include a large CO₂ carbon capture and sequestration facility of **1.5 mtpa**, leading to **25% plus reduction of greenhouse gas emissions** when compared to similar LNG facilities.

The North Field Expansion project involves producing gas from the southern sector of the North Field. The gas will be transported by pipeline to Ras Laffan Industrial City (RLIC) to process it into LNG for exports.

The President and CEO of QatarEnergy, said: "The award of this contract marks another concrete step towards the further development of our natural gas resources, and enhancing our position as the world's largest, most reliable LNG producer."

His Excellency added: "The NFS project is a unique development that minimizes its environmental footprint by design. It includes one of the largest CO₂ capture and sequestration facilities, and constitutes an important step towards achieving QatarEnergy's target of more than 11 mtpa of CO₂ capture and sequestration by 2035."

Exports

Qatar is one of the largest exporters of LNG in the world. It exports 73% of its natural gas production.



The Outlook - Qatar Extends Its Natural Gas

One country that has maneuvered effectively to gain economic and political advantage from the turmoil of Russia's war in Ukraine is Qatar.

"Qatar," many energy experts said, "is becoming the Saudi Arabia of natural gas - an indispensable energy supplier with vast reserves and very low costs." "This is Qatar's moment," said Ben Cahill, an energy expert at the Center for Strategic and International Studies. "Everyone in the world needs them."

At current consumption levels there are 609 years of natural gas left! Qatar's geographical location is well-suited to serve any coastal market in the world.

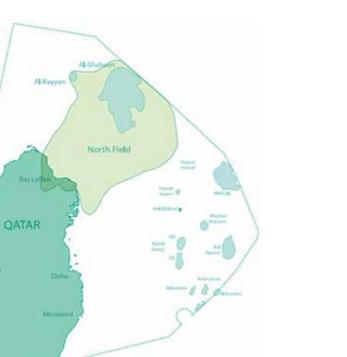
The oil and gas sector is set to continue to be the dominant driver of Qatar's economy. This sector "turned Qatar into one of the world's richest countries, with a GDP per capita of more than \$84,000 at current prices; fueled the growth of the country's sovereign wealth fund (SWF), which has ballooned to an estimated \$450 billion; supported the growth of the private sector; and enhanced Doha's ability to pursue its foreign policy goals."

Income generated by the expansion of the country's LNG production and export capacity is likely to drive the economy for many years to come.

Qatar anticipates that natural gas will remain a key source of energy. It will replace more polluting fuels, improve air quality and limit emissions of carbon dioxide.

Sources / Reference

- https://www.qatarenergy.qa/en/whoweare/Pages/WhatIsLNG.aspx
- https://www.mei.edu/
- (million standard cubic feet)



FEATURE

BULLETIN 136, 1ST HALF 2024



FEATURE



FEATURE: North Field South (NFS), Onshore LNG Facilities (Trains 12 & 13) Ras Laffan



Ras Laffan Petrochemicals Project (RLPP)

Article by: J. Lewis

Project Executive Summary

The works for **Ras Laffan Petrochemicals** (*RLP*) Project include a variety of different activities paving the groundwork for the upcoming major works to a petrochemical plant to be situated in **Ras Laffan Industrial City** (*"RLIC"*), Qatar.

The works for **RLP Project** are the installation of fencing around the site, site preparation works, installation of a 33kV electrical feeder circuit breaker ring design procure and installation of telecom networks as well as piping for desalinated water, temporary portable and treated sewerage water. One third of the project is made up of the installation of a Wastewater Treatment Plant to cover the manpower needed to construct the petrochemical plant.

Project Data	
Client	Chevron Philips Chemical Company Qatar LLC
Contractor	Consolidated Contractors Group Doha WLL
Contract Scope:	 Located at Ras Laffan, Qatar, a brief scope of works includes: a. Installation of a permanent fence around the construction site (E3/E4) and WWTP area in addition to a temporary fence around construction site laydown area (E2A). b. Site preparation of the construction site, Construction Camp and WWTP Plot. c. Installation of temporary services including: 33 kV electrical feeder unit, telecom fiber cable, desalinated water line and temporary potable water line. d. EPC of a Waste Water Treatment Plant (WWTP).
Project Duration	16 months
Contract Award Date	May 31, 2022

The works are 86% completed, and the project has just been recommended for a major safety award as well as laying the foundations for CCC to have a new relationship with the new client for major upcoming works. Below are some of the challenges and achievements so far encountered and overcome:



Safety

Challenge: The project has experienced a big safety challenge since the main subcontractor on the project with vast multi-discipline scope of work doesn't have his own labor workforce and entirely depends on supplied manpower from third party agents. This situation placed significant additional burden on CCC and especially on HSSE section to enforce compliance with the Project's HSSE Plan. The CCC team spent efforts to train, coach and monitor manpower that was constantly changing as one task was achieved and another started.



Achievement: Ras Laffan Petrochemicals Project Early Works (RLPP/EW) project by May 23, 2023, has achieved a safety milestone of 1,500,000 man-hours without a recordable injury which corresponds to 358 days Incident Injury Free, making it the first ever CCC project within Ras Laffan to achieve this record.

Quality Management

Achievement: One of the key objectives for delivering RLP Project in addition to completing the milestones and handover dossiers within the designated dates is to achieve the quality level specified for the project. Monitoring, evaluating and reporting the project quality compliance can be best achieved by reporting the performance of Field Engineering Effectiveness, Field Purchasing Effectiveness & Product Conformity.

This includes **Request for Inspection** (*RFI's*), **Material Inspection Request** (*MIR*), **Material Tests**, **Audit Observations & Corrective Actions**, and **Non-Conformance Reports** (*NCR*) processes. The project quality dashboard is an example of how to provide the client with comprehensive oversight of the project's quality compliance. To provide the information needed for the quality dashboard, ACONEX access needs to be used; reports can be automatically generated and accessed anytime from any location, and the client can access RFI's, MIR's, NCR's and other approved tasks for each Quality Management process.



FEATURE: Ras Laffan Petrochemicals Project (RLPP)

FEATURE: Ras Laffan Petrochemicals Project (RLPP)

✓ continued from page 17

Construction (Civil)

Challenge: The construction of different underground utilities in live critical areas: The construction of the project utilities in live critical areas isn't limited to complying with the **RLIC** Interface procedure for the proposed routes as per the FEED drawings, but it is extended to investigate and propose the most effective & practical routes which could save time and reduce the interface agreement numbers with the adjacent and the crossings asset owners. This approach will also reduce the cycle of RLIC approvals, and accordingly could improve the project schedule, and so by implementing this process we successfully achieved the following:

- Construction of Telecom EMTB TO Camp / WWTP Line 2,671 LM (20 Crossings)
- Construction of Telecom Radio Tower to E3/E4 114 LM (06 Crossings)
- Construction of Desalinated water to E3/E4 206 LM (10 Crossings)
- Construction of Potable water to E3/E4 290 LM (09 Crossings)
- Construction of TSE to Construction Camp 1,209 LM (11 Crossings)
- Construction of Potable water to Construction Camp 1,100 LM (14 Crossings)
- Construction of 33 KV line, 7,000 LM were completed out of 9,500 LM total length (117 Crossings)

Achievement: Ras Laffan Petrochemicals Project Early Works (RLPP/EW) project by May 23, 2023, has achieved many construction milestones and successfully completed the handing over of below areas:

- E3 = Grubbing / Grading, Compaction/Slope Drainage 335,920 m²
- E4 = Grubbing / Grading, Compaction/Slope Drainage 1,423,874 m²
- E2A = Grubbing / Grading, Compaction/Slope Drainage 524,530.0 m²
- Camp = Grubbing / Grading, Compaction/Slope Drainage 922,000 m²





Construction (Mechanical)

Achievement: Ras Laffan Petrochemicals Project Early Works (RLPP/EW) project by May 23, 2023, has achieved the below construction wet utilities milestone with all requirements of safety & quality, considering best resources utilization:

- Construction of Desalinated water to E3/E4 206 LM
- Construction of Potable water to E3/E4 290 LM
- Construction of TSE to Construction Camp 1,209 LM
- Construction of Potable water to Construction Camp 1,100 LM

Challenge: Approvals, protection, workable methodology for Ras Laffan wet & dry services which crossing or obstruct project wet utilities execution.

Construction (Electrical)

Achievement: Ras Laffan Petrochemicals Project Early Works (RLPP/EW) project by May 23, 2023, has achieved the below construction milestone with all requirements of safety & quality, considering best resources utilization:

- Installation of Outdoor RMUs of E3/E4 (2) Completed
- Installation / Termination of Outdoor RMUs of Construction Camp (2) Completed
 - Installation of 33KV Cables from RLIC 33KV main Substation (43,500Mtr) 23,600 MTR Completed
 - Buffer Tank Area Underground cables and lighting Completed

Challenge: Approvals documents for the modification of RLC 33KV Main substation and energization.





FEATURE: Ras Laffan Petrochemicals Project (RLPP)

- **(2) Completed** DOMtr) – **23,600 MTR Completed**

FEATURE: Ras Laffan Petrochemicals Project (RLPP)

✓ continued from page 19

Construction (Telecom)

Achievement: Ras Laffan Petrochemicals Project Early Works (RLPP/EW) project by May 23, 2023, has achieved the below construction milestone with all requirements of safety & quality, considering best resources utilization:

- Installation Telecom ducts (2.5 KM) and 21 Telecom Manholes
 Completed
- Installation of Outdoor Telecom Panel in E3/E4, Construction camp and interface fiber optic (FO) cable to Ooredoo Telecom tower power - Completed

Installation of 24 Core FO cable (16.2KM) - Completed

- Installation of 12 Core FO cable for electrical substation interface (9.5KM) - 6.8 KM Completed
- Installation of electrical, instrumentation and telecom cables in WWTP (92 KM) - 56.2 KM Completed
- Buffer tank instrumentation cables and instruments installation - Completed

WWTP (Wastewater Treatment Plant)

Wastewater Treatment Plant for Labour Camp Facilities of RLPP project in Ras Laffan, capable of treating Domestic Sewage Wastewater received at the WWTP, suitable to be reused for Irrigation. The proposed system is biological treatment based on process utilizing the Extended Aeration System Technology (EAST). The capacity of the proposed plant is 8,700 m3/day catering to sewage generated by 27,000 personnel at site.

Objective Of Wastewater Treatment

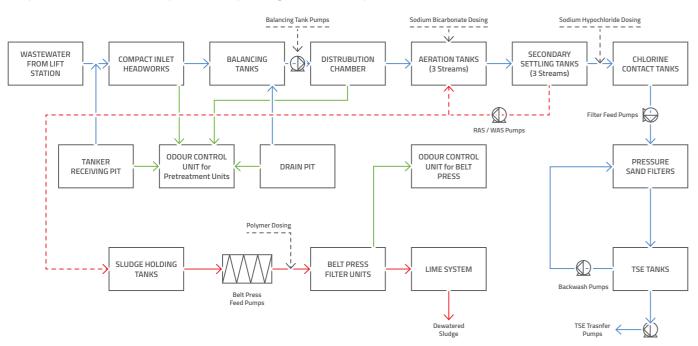
The objective of municipal wastewater treatment is to extract pollutants, remove toxicants, neutralize coarse particles, and kill pathogens so that quality of discharged water is improved to reach the permissible level of water to be reused for irrigation purposes.

The main reasons for treating sewage are: • To protect public health. • To preserve the environment. • To provide efficient reuse of treated sewage.

Sewage contains suspended and soluble contaminants, which are normally classified in two main groups: • Organic. • Inorganic

Both organic and inorganic solids can be broken down further into Suspended Solids and Dissolved Solids. Suspended solids are mainly organic in nature, are visible and can be removed from the sewage by physical/mechanical means e.g., screening and sedimentation. The strength of the sewage is often determined by measuring the amount of oxygen consumed by bacteria in biodegrading the organic matter. This measurement is known as the **Biochemical Oxygen Demand** *(BOD)* and is usually performed over a 5 days' period at a constant temperature of 20°C. The measurement is sometimes referred to specifically as BOD5.

The process scheme below is fully dedicated to providing a detailed description of different units of the Wastewater Treatment Plant (WWTP).



Plant Design Summary

Capacity Consideration

The plant is designed based on below number of occupants.

- No. of Personnel's: 27,000
- Additional Capacity: 10%
- Wastewater Prosuction per PE: 290 lt/day

Wastewater Flow Generations

- Capacity of Plant: 27,000 No. of Personnel's x 290 lpcd + 10% = 8,613 m³/day = 8,700 m³/day
- No. of Biological Streams: 3
- Capacirty per Stream: 2,900 m³/day

Achievement: Completed 70% of the construction activities without a recordable injury which corresponds to 358 days Incident Injury Free, making it the first ever CCC Project within Ras Laffan to achieve this record.

Challenge: RLC approval for complete design documents.

Moving Forward

The Project still has some significant milestones to hit with connection and completion of the utilities as well as works to the Waste Water Treatment Plant needing to be completed by the 10th October 2023. The team on the Project have been together for four Projects and have overcome many challenges and the path to success is well worn.

We will succeed together.





- Average Flowrate: 362.5 m³/h
- Peak Factor (PF): 362.5 m³/h
- Peak Flowrate: 1,087.5 m³/h





Oetaifan Island North **Background of the Project QIN 4**

Article by: B. Kanj

Introduction

Qetaifan Projects LLC, a subsidiary of Katara Hospitality, is developing Qetaifan Islands located within the Lusail City Development. The Qetaifan Islands are districts within the overall development of Lusail, comprising a group of four islands. The overall area of the Qetaifan Islands is approximately 256 hectares, and it comprises two distinct entities, the North and the South islands. **Qetaifan** Island North (QIN) is the largest of the four islands, connected to the Lusail mainland. The island is on the eastern side of the mainland of Lusail City. Lusail City is North of Doha, adjacent to The Pearl.

Qetaifan Projects have appointed Consolidated Contractors Group S.A.L (Offshore) (CCC) / Teyseer Contracting Company W.L.L. (CCC/ TCC) Joint Venture (JV) for Qetaifan Island North Project - Package 4 Infrastructure and Landscape related works (hereafter referred to as "IN P4-Infrastructure and Landscape").



Project Description

The "Linear Park" part of the project consists mainly of softscapes and landscapes with the majority of the area serving as landscapes with different types of vegetation. It also includes structures for kiosks, toilets, central security room, main server rooms (ICTS) and waste management room. The hardscape area consists of pedestrian foot bridges (3 no.) along with a waterfall feature for all three bridges along with infrastructure utilities as part of the hardscape. The park area contributes to play areas, steps and ramps to canal.





The "Infrastructure" part of the project consists of roads roundabouts and a paved promenade area also consisting of 3 road bridges. Additionally, there are 2 pumping stations (PS1 and PS2).

The "Streetscape" area consists of roads, cycle track, pavement, shrubs and grass and gravel areas.

A. Design Objectives & Key Principles

The overarching objective of the QIN masterplan is to create a vibrant community where residents and visitors benefit from the latest advances in sustainable design and construction applied to buildings, infrastructure and public realm, making it a public destination with world class hospitality and entertainment zones.

In keeping with the vision for QIN, the following design objectives and key principles have been established to guide the detailed masterplan and all future development on the Island:

- To provide a high-quality design that contributes to the creation of an attractive, contemporary and unique destination of international standing.
- To develop a masterplan that contributes to the overall marketability and market value of the individual development plots and waterpark.

B. Scope of Works

Linear Park:

- Construction of sitewide infrastructure including roads and utilities.
- Construction of road bridges including supporting retaining walls but excluding bridge sub structure.
- Construction of pumping stations.
- Design and Build of 11/0.4 KV distribution substations. .
- Demolition and modification of existing retaining wall and . infrastructure between the bridges and connecting the island with Lusail.



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FEATURE: Background of the Project QIN 4

- To create a masterplan which creates a unique visual identity and aesthetic character which unifies the entire Qetaifan Island North development.
- To integrate seamlessly the Qetaifan Island North development with the wider Lusail City masterplan which helps to contribute to the overall success of Lusail City.

The following are the contractor's scope of works for the Qetaifan Island North Phase 1 - Package 4 Infrastructure, Streetscape and

- Construction of the streetscape and its features along with sitewide roads.
- Construction of linear park and its features including landscape, structures and services excluding canal works.
- Construction of house connections and resolution of interfaces between various packages.
- Undertake all works in accordance to QCS 2014 and the local statutory authority requirements and regulations unless specified otherwise.
- Miscellaneous items.

Article by: B. Kanj

Qetaifan Island is located within the **Lusail City Development**; CCC covers the major work for the **"Infrastructure and Linear Park"** scope. The project began in April 2020, and the majority of the construction work is completed; the handover is tentatively planned for July 2023.

The **"Infrastructure"** part of the project consists of roads roundabouts and a paved promenade area also consisting of 3 road bridges. Additionally, there are 2 pumping stations *(PS1 and PS2)*. The **"Streetscape"** area consists of roads, cycle track, pavement, shrubs, grass and gravel areas. **The Linear Park of Qetaifan Island North** *(QIN)*, will be the central open space and one of the focal points of the development, providing a large green corridor spanning from north to south of the Island. The Linear Park consists mainly of softscapes and landscapes, with the majority of the area serving as landscapes with different types of vegetation. It also includes structures for kiosks, toilets, central security room, main server rooms *(ICTS)*, and waste management room.



The Linear Park will feature extensive open spaces, pedestrian promenades, cycling route and a canal offering a variety of water related activities. The Linear Park will be the heart of Qetaifan Island North linking all the public open spaces of the island. It will provide land-scape amenities such as family areas and private gathering spaces, dedicated children's play areas, sports and outdoor exercise areas, edutainment, retail and dining experience.

The project is developed in such a way that it encourages users from the surrounding neighbourhoods and communities to make efficient use of the infrastructure, which is intended to reduce negative environmental impacts such as climate change, pollution, and so on. The project targets to achieve a 4-star GSAS rating system under **"Parks and Districts & Infrastructure"** schemes. The site has two main entrances through bridges 7 & 9, as well as 15 park entrances, each of which has access to pedestrian pathways and bicycle tracks - with the presence of bicycle racks.

Sustainability Features

The Qetaifan Island Linear Park and site wide (infrastructure & district) successfully incorporates sustainability goals, and eco-friendly methods & procedures have been involved throughout its development process. The project includes a variety of sustainable features intended to reduce resource use, improve transportation, reduce waste, and promote healthy, productive environments.

Urban Connectivity

The strategic utility network has been proposed considering all site constraints to meet the desired level of service of each system. An integrated approach has been adopted to use existing utilities near Bridge 7, such as sea outfall, sewerage pumping station, manhole, pipes, valves chambers. The infrastructure for the electricity, potable water, transportation, communication and sewage are developed under QIN Package 4, and are connected with the existing infrastructure in Lusail City.



Potable Water Network
 The major goal of the pot;

The major goal of the potable water and firefighting supplies is to offer a reliable, cost-effective, and continuous supply of potable water to the entire north shore of Qetaifan Island. The consultancy services' scope and objectives are to create a design for a potable and fire water distribution network system within the project region. The average daily water demand for the full development is estimated to be 7,543 m³/day.

Irrigation Network

Treated sewage effluent (TSE) will be used to supply irrigation needs for the site. TSE is the only water allowed for irrigation purposes except for the mosque and residential villas. The objective of the TSE and primary irrigation distribution networks is to provide sufficient irrigation water for soft landscaping purposes across the development site. The system will be ecologically friendly, financially effective, and simple to build.

Sewerage Network

Based on the project characteristics, the proposed network envisages a conventional gravity system with an assembly of pumping stations to collect the generated sewage flow from the development. The overall strategy dictates the consideration of specific design criteria and in line with the Qatar Sewerage and Drainage Design Manual (QSDDM) guidelines.

Electrical Power

BULLETIN 136, 1ST HALF 2024

The objective of the power supply system is to provide a safe, efficient and reliable power distribution network which caters to the power demand of QIN. Qetaifan Island have both MV network and LV network per KAHRAMAA guidelines. The following codes, regulations, and industry standards -where applicable- cover design, material, and construction of the electrical systems:

- → KAHRAMAA Standards and Regulations
- □→ EPP-C1 Electricity Planning Regulations for Supply
- □→ EPD-C1 Electricity Planning Regulations for Infrastructure Projects





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FEATURE: Sustainability Features in Qetaifan Island Linear Park

- └→ Lusail Connection Criteria
- $\, \mapsto \,$ Qatar Construction Specifications (QCS 2014) requirements.

FEATURE: Sustainability Features in Qetaifan Island Linear Park

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Project Site

The current Island has been formed through land reclamation works and is not a naturally formed island. The site has been developed over the past 10 years from its original undeveloped state. The site is surrounded by shallow marine water. As an island development, QIN enjoys high-quality views on all sides—both of the open ocean and back towards the coast of Lusail City.

The vegetation consists of trees, shrubs, and ground cover. The area is covered more with native and semi-native, and less with non-native plant species. The plants also act as a wind barrier that protects the landscape from the direction of prevailing winds. Planting more plants that are native and adaptive will help in reducing desertification, as the roots of the trees hold the soil together and help to reduce soil erosion from wind and rain.

The soil is enhanced through the addition of proper organic compounds. Soil additives such as fertilizers and herbicides are mixed into the site periodically and are applied to plants to help them grow properly. The project site is developed with many sustainable practices, such as using the excavated soil to fill the land, TSE water for irrigation, mulching to protect the soil, and more.



Energy

There are three different aspects of energy for the Linear Park which provide the opportunities to save energy, namely:

- The water related energy system: The water related energy systems are the foul water lifting station pumps, waterfall pumps and
 potable water pumps. The energy consumption of the pumps per year is calculated based on the operating hours of the pump and the
 input power which is taken from the datasheets of the pump.
- Park lightings: Park lighting energy consumption for the external lighting is performed based on the lights in the pathways, stairs, bridges, trees, feature seating and façade. The light fixtures are classified as type 1 and type 2 based on the operating hours. The type 1 will operate from dusk to 2 a.m. and 2 a.m. to dawn at 100% or dimmed, which is total of 12.5 hours. Type 2 will operate from dusk to 2 a.m. total of 9 hours as per the lighting specification in the design and lighting control schedule.
- Energy consumed by the buildings and the efficient use of energy with the control system.

The overall area of the park buildings is categorized into conditioned and unconditioned zones for calculating the energy criteria. The building energy consumption includes energy consumption of light fixtures, HVAC and equipment energy in the building. The image suffice the Linear Park is having energy efficient systems which is complying with the GSAS requirements.



Water

Efficient sanitary fixtures and control systems are used to reduce the indoor and outdoor water demand of the development and to maximize the water recycling and reuse in the development. The treated sewage water is used for the irrigation, and the rainwater from the site is collected from both hardscape and softscape through runoff to the retention basin. Retention basins are depressions in the surface that are designed to store the run-off and infiltrate the water to the ground.

Materials

The materials are procured based on factors that could mitigate environmental impact due to their sourcing & production, such as procuring local materials to reduce transportation needs, responsibly sourced materials - **Forest Stewardship Council** (*FSC*), responsible sourcing certificate (*BES 6001*), materials with high recycled contents, and materials with **Environmental Product Declaration** (*EPD*).

Cultural Heritage

Qatar is a country linked to the sea. Its coasts, beaches, waterfronts, inland seas and mangrove forests are unique in the world. The marine life is rich and bountiful, nourishing the country and its people. The overall design and theme of the landscape and public realm is inspired by the natural forms of the sea, marine life, as well as the cultural expressions and representations of Qatar. The urban Linear Park is the main green axis which interconnects various components of the Qetaifan Island North.

Summary

The Qetaifan Island Linear Park and site wide successfully incorporates sustainability goals, eco-friendly methods & procedures.

The sustainability goals were achieved through the participation of **Consolidated Contractors Company** *(CCC)* with the client representative, Atkins, and with GORD, the institute for issuing the green rating certification. Through step-by-step assessment in numerous meetings, workshops, CDA audits, and material audits, the targeted scores were achieved and the **GSAS 4-stars green certification** is nearing completion.



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FEATURE: Sustainability Features in Qetaifan Island Linear Park

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Improvement of Schedule Development, **Updating & Monitoring**

Article by: A. Aburudayna / Y. Al Kadi



Introduction

- There have always been challenges in contemplating, analyzing and approving projects schedules. This is driven mainly from the relatively large number of activities within these schedules (in multiple thousands) and their dependencies/relations to other activities (in tens of thousands). This issue is even more challenging when the construction activities are linked with their engineering & procurement predecessors (EPC) and/or multiplied/aligned by "construction area" for interfacing with Advanced Work Packaging.
- Majority of the analysis conducted so far to assess these schedules and their updates rely largely on subjectivities that are much associated with the planner or reviewer scheduling skills, experience, and mostly the allowed time for review without a clear-cut industry standard to benchmark against or apply upon. Histograms and s-curves are commonly used to initially demonstrate the behavior of these developed schedules in a "Static Mode". As schedule updating commences, the "dynamics" based on adopted logic between activities start depicting distorted behavior of the schedule due to missing links, illogical lags or logic flaws in the project dependencies etc. Such matter does not cause only misrepresentation of the project progress status, but also impedes PMT ability in anticipating, early enough, potential problems, risks or even opportunities to primitively steer the project execution towards its targets.
- With the recent raise of risk management process across all business, there has been a significant improvement as well in development of tools that facilitate schedule preparation, contemplating and updating. A key drive in this regard is using statistical modeling and benchmarks against several recognized and dedicated industrial KPI's and wide range of as-built various types of projects schedules.
- → Two key processes have evolved significantly using these techniques namely, "Schedule Health Check (SHC)" aimed at enhancing the quality and integrity of produced schedules (i.e. with robust logic that flawlessly link the various schedule activities), and "Enhanced Schedule Risk Assessment (SRA)" aimed at ensuring the achievability of these schedules (i.e. the likelihoods/ probabilities of achieving schedule milestones and overall completion).
- Several specialized planning software makers have worked relentlessly for enhancing and regulating both processes for years and now there are several viable options available in the market. Using these tools would not only improve development of robust project schedules, but also safeguard the schedule as an adequate contractual tool to substantiate entitlements while contesting clients in changes or even disputes. The elevated quality of produced Contract Schedules and their subsequent updates would inhibit Clients from undermining them contractually or legally (as they consist of logic flaws and/or missing links or they do not meet the industry KPIs etc.). Moreover, these "Healthy" schedules would respond adequately to forensic impact analysis by contract professionals reflecting adequately the cause-and-effect consequences and their corresponding time/cost entitlements. Recently, Several new contracts mandated implementation of SHC and SRA (e.g. AP NEOM Green Hydrogen Project).

Schedule Health Check (SHC) & Integrity Testing

- A key factor for delivering a project successfully, is securing initially a workable execution strategy depicted through robust comprehensive planning.
- Currently CCC undertakes only sizable and complex projects with schedules that contain thousands of interconnected tasks and interdependencies.
- These schedules must be continuously assessed for integrity and adherence/compliance with sound Critical Path Methodology (CPM) principles.
 - → Is the schedule created with minimal flaws, "Healthy"?
- → Does it align with the best "Industry Practices & Benchmarks"?
- → Is it resilient enough to withstand predicted risks or unexpected challenges?
- These questions can be easily replied upon using adequate benchmarking against defined KPIs. Moreover, a balance scorecard can be applied upon these to define the overall health score of the schedule indicating a minimum passing mark. All these have been captured in what is referred to as "DCMA 14-Point Assessment":

DCMA 14-Point Assessment

- DCMA 14-Point Assessment is a critical tool for evaluating project schedules. It is the first attempt to standardize a guideline that a schedule must meet its minimum criteria to be considered "Healthy". It was developed by The Defense Contract Management Agency (DCMA).
- Each metric receives individual check score, indicating the level that the schedule activities meet a defined threshold.
- DCMA 14-Point metrics are:

1. Missing logic

4. Long lags

2. Activities with leads

3. Activities with lags

5. Relationship types

6. Hard constraints

7. Soft constraints 8. High float

9. Negative float

10. High duration

12. Late activities

13. Invalid dates

DCMA 14-Point Assessment 11. No assigned resources 14. Baseline execution index



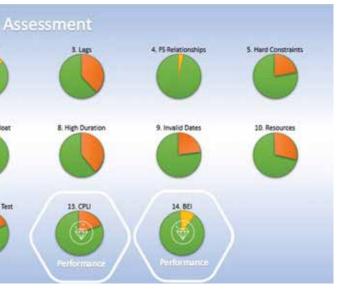
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FEATURE: Improvement of Schedule Development, Updating & Monitoring







FEATURE: Improvement of Schedule Development, Updating & Monitoring

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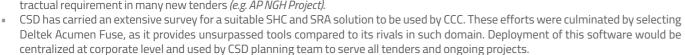
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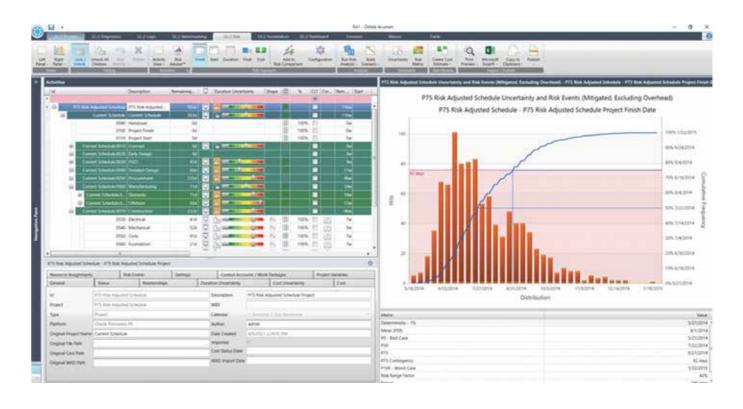
Enhanced Schedule Risk Assessment (SRA)

- Schedule achievability is determined using schedule risk assessments (SRA) that are based on statistical modules.
- Activities durations are benchmarked on similar activities from previously executed projects with similar nature, locations and circumstances (3 difference scenarios: •best, ••worst, •••most probable).
- → Within CCC, and with help from automation and data analytics disciplines within CSD, solid assumptions were established for these 3 scenarios relying on historical data archives and progress achievements retrieved from previously executed CCC projects databases.
- → Nevertheless, a software like Deltek Acumen Fuse (further described below) provides industrial benchmarks from thousands of previously executed projects by various contractors making these benchmarks more solid and realistic.
- As schedule updates are undertaken (usually monthly), these must be complemented by carrying out new SRA to determine the changes in the likelihoods of completing the project as planned in Contract Baseline Schedule and the probabilities for achieving projects' MSs and delivery targets (time and cost). This process will provide early warnings for potential delays particularly by E&P into performance of construction as planned, and help assessing adequately the construction works fronts and their planned sequence.

Way Forward

- Given the increasing complexities and sizes of project schedules, reviewing them has become a challenging and time-consuming task, notwithstanding inaccuracies. However, utilizing SHC & SRA ensures development of robust flawless schedules and significantly streamlines the schedule assessment process.
- Using a schedule diagnostic tool helps identify schedule shortcomings that can be resolved before they become problematic during execution, thus, schedule integrity is maintained. Also it safeguards achievability by comparing productivity against previously executed projects and the circumstances that shaped these achievements.
- This matter has been also recommended by contract and legal teams as it safeguards schedule development from flaws that could be used negatively by clients and EPC contractors in disputes and claims. Moreover, it is becoming unavoidable contractual requirement in many new tenders (e.g. AP NGH Project).





Deltek Acumen Fuse 360™

- Acumen Fuse 360[™] is a leader in SHC & SRA domain and has greater technical features and details that are not available in other software. It can perform and analyze rapidly SHC & SRA for monthly schedule updates, guiding PMT to steer project execution with more confidence towards its targets.
- Deltek Acumen Fuse SHC & SRA tools provide the following features:
 - └→ Comprehensive set of 250+ metrics including DCMA 14-point Assessment, validating the quality of CPM schedule using a more rigorous and systematic evaluation process.
 - \rightarrow Evaluates the schedule per year and per area. Moreover, it outlines the sequential and consistency aspects of the project.
 - → Provides a final schedule health check score. └→ Compares metric threshold for the schedule benchmark against other similar sized characteristic projects (Onshore oil & gas works).
 - → Undertakes quantitative analysis, through creating different **risk assessment** (RA) scenarios and analysis per time periods.
 - → Tracking schedule changes (including logic and calendar changes) and related cost analysis saving time with schedule forensics. Combines forensic analysis with schedule & performance analytics to support claims scrutiny.
 - → Evaluate logic sensitivity between any two activities to see potential impacts from delays.



FEATURE: Improvement of Schedule Development, Updating & Monitoring



Implementation of Project Production Control (PPC) within CCC

Article by: B. Aker

Productivity improvement has been a key initiative within CCC aiming at making CCC more competitive in the contracting market.

The average overall productivity within CCC has improved during the past 5 years. This improvement resulted mainly from the work of various productivity improvement committees formed for this purpose, through workforce engagement and management. Yet, CCC is still aiming for an even higher productivity target.

It is projected that CCC must undertake a major shift in certain existing executional and operational practices and rely more on technology and scientific methodologies using automation, simulations and statistical modelling. These are now proven tools in the industry to manage production and ultimately improve productivity (output).

- Advanced work packaging, as an example, has added significant features to safeguard readiness to execute project activities on site.
- Implementation of schedule risk assessment and schedule health check have allowed creating robust work schedules with added assurances for meeting project deadlines.
- Project Production Control (PPC), which we are showcasing here, has helped site teams understand their operational shortfalls and achievement setbacks, and consequently implement mitigation and improvement measures.

All these tools have major contribution towards productivity improvement, and CSD is working meticulously in promoting their implementation as deemed beneficial for CCC project execution.

Explaining the process of Project Production Control (PPC)

Project Production Control (PPC) is primarily understanding and analysing a task or an activity (i.e. a functional production) in a project, by observing it and collecting all related PPC data; parameters, variables, constraints and measures that govern its execution. In simpler words:

"Undertaking a thorough comparison between achieved actual production versus the targeted production using production planning, through carrying out detailed analysis for the causes of deviation."

Project Production Control represents a holistic and integrated approach to project management, aiming to optimize processes, enhance efficiency, and deliver successful outcomes. It emphasizes the importance of planning, coordination, and continuous improvement to meet the challenges of complex and dynamic project environments. These would result into a scrupulous systematic planning, well executed coordination and meticulous control of all production parameters that influence achieving targeted construction commodities on time, with added assurances for meeting quality and safety standards and using the designated level of resources (meeting production norms) i.e. budget.

PPC Targets

- Increase daily productivity within a production crew through systematic removal of wastage.
- Provide a framework for a crew to effectively collaborate with each other.
- Observe patterns/trends in what is/is not working to target.
- Unveils opportunities for individual & team growth.
- Develop reliable workflows with corporate and international benchmarks.

PPC Implementation Areas

PPC could be applied across the various construction activities through implementation of efficient planning, adequate resources allocation and control of production processes:

- Bulk CME&I Construction work fronts, tasks or activities.
- Piping fabrication shops, precast yards, formworks/shuttering, assembly and dressing up, modularization and other offsite activities.
- Mechanical Completion activities.

PPC Control Steps

Implementation of PPC is conducted in sequential steps through systematic management and regulation of various elements within the construction workflow:



PPC Tools

Standard Process (SP)

SP is a repetitive sequence of work. It enables better definition of overall & individual process cycle times as well as opportunities for process improvement through repetitive execution.

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Day in Life (DIL)

A PPC tool that depicts the way actual productivity can be measured on several occasions, during different weather conditions and different trades.





FEATURE: Implementation of Project Production Control (PPC) within CCC

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PPC KPIs

Schedule Variance (SV)

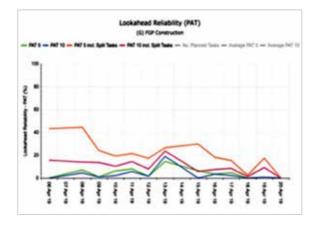
Enables monitoring of the way project teams are progressing in delivery of each milestone.

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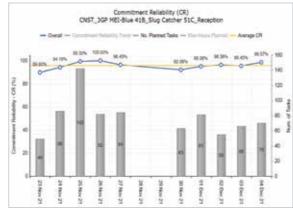
Look-ahead Reliability

Measures the ability of a team to forecast work execution within 5 and 10 days into the future using the Percentage of Anticipated Task (PAT) indicator for these two time-windows.



Commitment Reliability

Shows the extent of reliability for a team in completing the work they committed to the Production Plan.



PPC Deployment Sequence

Three PPC key processes are categorized based on the level of details in planning and the covered timeframe. These three practices are:



PPC Implementation Example (in Piping Fabshops)

STEP 1: Define Fabrication Shop Objectives

Specificity

Helps in avoiding confusion and aligning efforts toward a common goal.

Measurability

This enables the project team to assess progress and determine when the objectives have been successfully achieved.

Time-Bound

Time constraint provides a sense of urgency and helps in managing fabrication shop timelines effectively.

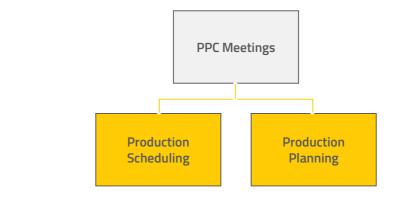
STEP 2: Develop a Detailed Fabrication Plan

- with the overall goals of the shop.
- → Regular monitoring and feedback mechanisms contribute to a dynamic and adaptive implementation process.

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STEP 3: Communication Planning

- Communication planning in a fabrication shop is a dynamic process that involves both internal and external stakeholders.
- fosters collaboration among team members and external partners.



CONSOLIDATED CONTRACTORS COMPANY



FEATURE: Implementation of Project Production Control (PPC) within CCC

Achievability

Objectives should be realistic and attainable within the given constraints, such as budget, resources, and time.

Strategic Alignment

Fabrication shop objectives should be in alignment with the broader strategic goals of the organization.

🕒 Fabrication shop plan should provide a structured approach to achieving specific objectives, ensuring that each activity is aligned

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→ The goal is to create a transparent, efficient, and adaptable communication environment that supports the shop's objectives and

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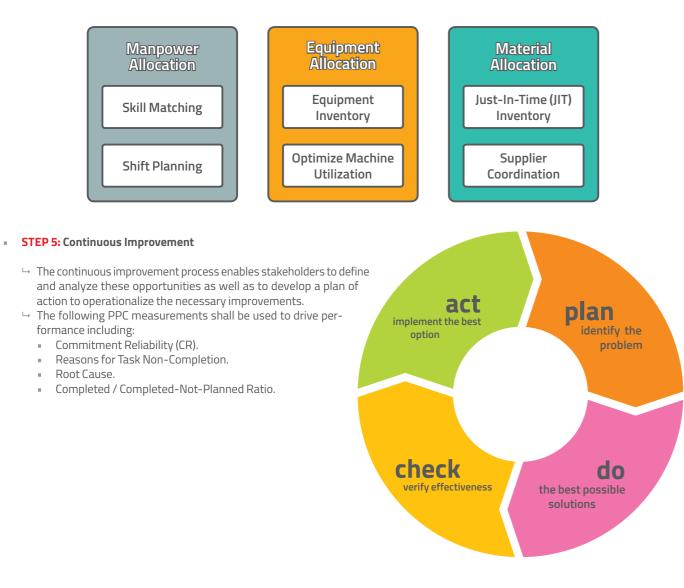
FEATURE: Implementation of Project Production Control (PPC) within CCC

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STEP 4: Allocate Resources

→ Allocating resources in a fabrication shop involves strategically assigning and managing manpower, equipment, materials, and financial resources to ensure optimal efficiency, productivity, and successful project execution.

Ø



STEP 6: Training and Development:

- → Develop training programs to educate employees on the principles and importance of Project Production Control.
- → Provide an overview of project management methodologies and production control strategies.



SINGAPORE / UAE **CCC's Promising Outlook at Gastech** and ADIPEC

Article by: S. Khoury



Gastech

Consolidated Contractors Company *(CCC)* once again participated in Gastech, held this year in Singapore, and the Abu Dhabi International Petroleum Exhibition & Conference (ADIPEC), two of the most influential conferences in the global oil and gas industry. These events serve as crucial meeting points for industry professionals to network, discuss, and share knowledge on the evolving energy landscape, including the roles of oil, gas, and renewables.

Both conferences aim to shape the energy dialogue, each with its distinct focus. Gastech is particularly oriented towards the gas sector, encompassing LNG and, more recently, hydrogen, and delves into the market's trends, challenges, and opportunities. ADIPEC, meanwhile, offers a broader perspective, encompassing the entire spectrum of the oil, gas, and renewable industries, and attracts a diverse range of participants from the upstream, midstream, and downstream sectors, particularly focusing on the Middle East.

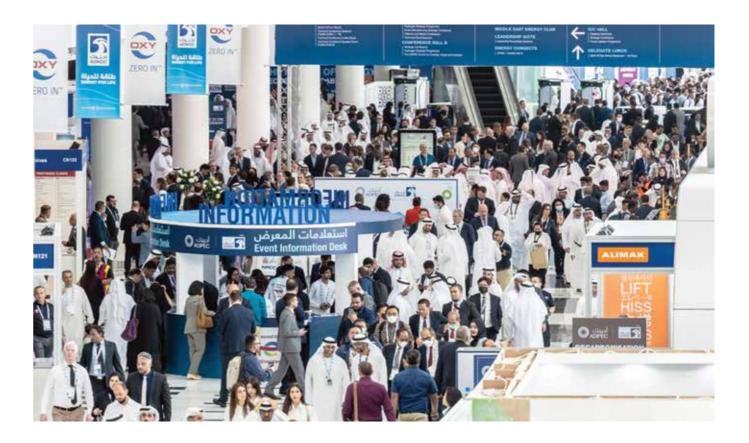
As the world transitions to cleaner energy sources, LNG and even oil are still expected to play a crucial role in the energy mix. Discussions at these events underscored the need for innovation, technological advancements, and strategic partnerships to address the complexities of the energy transition while ensuring energy security and economic growth.





CCC's team engaged with various clients, International Oil Companies (IOCs), and long-term partners. CCC's strong reputation for efficiently delivering complex projects was highlighted in discussions with stakeholders, who emphasized CCC as their preferred partner for upcoming megaprojects. There was a noticeable optimism about the increasing volume of work coming CCC's way, particularly as the market shows signs of improvement in the Middle East, CIS countries, and Africa.

The interactions at Gastech and ADIPEC reinforced CCC's standing as a preferred industry partner, with a track record that underscores its expertise and a future promising continued growth and success. As the market improves, CCC is well-positioned to capitalize on the emerging opportunities, further solidifying its leadership in the construction industry.



CONSOLIDATED CONTRACTORS COMPANY



AREA NEWS



AREA NEWS: CCC's Promising Outlook at Gastech and ADIPEC



A Journey from Face-to-Face to Digital Transformation **The Evolution** of Learning & Development @ C



Article by: M. Abusalah / A. Dabdoub

In recent years, the Learning & Development (L&D) initiative at CCC has undergone a significant transformation. The outbreak of COVID-19 in early 2020 accelerated a shift from traditional face-to-face training to a more digital and online approach. This change was not merely a reaction to the pandemic but rather a strategic move towards digital transformation that CCC had been planning for several years.

This article will explore CCC's L&D journey, highlighting the transition from in class training and in-house webinars to the engagement with third-party learning providers and the subsequent evaluation of their effectiveness. We will also explore CCC's latest partnership with Talent LMS, an independent cloud-based e-learning platform, to take its L&D initiatives to the next level.

The In-House Webinar Initiatives

Before the onset of the pandemic, CCC had already begun recognizing the potential of online training. L&D initiated online webinars as part of CCC's in-house training courses, all of which were PMI certified, offering valuable Professional Development Units (PDUs) for employees looking to maintain their **Project Management Professional** (PMP) certification. These courses covered a broad spectrum of subjects, including soft skills and technical expertise, with **Subject Matter Experts** (SMEs) contributing to enrich the learning experience.

Engaging with Coursera

coursera

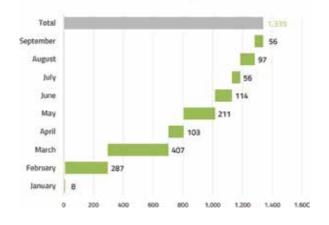
In early 2021, CCC decided to expand its training horizons by engaging external training providers to enhance the learning experiences of its employees. This led to a two-year contract with **Coursera**, a renowned online learning platform. Coursera's extensive library of courses offered opportunities for personal and professional development, making it an appealing choice for CCC. The success of this partnership was subject to CCC's satisfaction with the learning outcomes.

Learning Platform (learning.ccc.net)

talent

In early 2023, CCC took a significant step forward in its pursuit of effective L&D by partnering with **Talent LMS**, an independent cloud-based e-learning platform. Under this new partnership, CCC has the capability to host CCC-authored courses, webinars, and other e-learning materials. The strategic objective is to accredit these courses with PMI, providing successful learners with PDUs that contribute to their PMI license maintenance requirements.

This partnership represents a crucial development in CCC's L&D journey, allowing the organization to offer a more personalized and tailored learning experience to its employees. Talent LMS brings a wealth of features and capabilities to the table, supporting CCC's commitment to digital transformation and its dedication to providing high-quality learning opportunities.



Number of Enrolled Learner in In-house Online Courses, 2023

TRAINING & DEVELOPMENT: The Evolution of Learning & Development @ CCC: A Journey from Face-to-Face to Digital Transformation

Other Training Initiatives

In June 2023, CCC introduced a comprehensive "Project Controls On-Site Training & Upskilling Program" in Qatar and Saudi Arabia, targeting a group of engineers who had limited or no prior experience with on-site operations within the Controls functions.

This program was meticulously designed to empower engineers with the knowledge and practical skills required for effective on-site project management and control, with the ultimate aim of enhancing their overall professional competence. By delving into the intricacies of each module, the program equipped participants with the expertise and confidence to tackle the dynamic challenges presented by on-site activities and project controls.

This year-long program was structured into 14 distinct modules, each designed to provide a holistic and practical education.

Conclusion

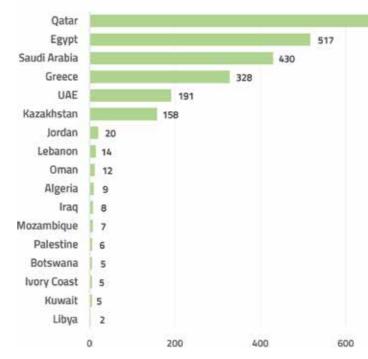
The collaboration between the HR Department and the Learning and Innovation Department, bolstered by unwavering support from the Learning and Development Committee, remains steadfast in driving the growth and development of CCC's dedicated staff. Our commitment to progress is exemplified by our continuous efforts to introduce contemporary training mediums, innovative approaches, cutting-edge materials, and valuable resources. These initiatives are developed both in-house and through strategic partnerships with external providers.

CCC's evolution in the realm of Learning & Development signifies our resolute dedication to adaptability and relevance in a rapidly changing landscape. The transition from traditional face-to-face training to the dynamic world of online and digital learning platforms underscores CCC's strategic vision for digital transformation.

Our recent alliance with Talent LMS heralds exciting opportunities for CCC. It ensures that our L&D endeavors remain on a trajectory of growth, perpetually aligned with our long-term strategic objectives. As the domain of Learning & Development continues to experience transformation, CCC stands as a vanguard of these changes, guaranteeing our employees unparalleled access to the finest resources and avenues for professional advancement and personal growth.

For any suggestions, feedback, comments, on CCC's L&D please drop us a line at: learning@ccc.net

Completed in-house Online Courses and Webinars Number of Learners January to mid-October 2023



CONSOLIDATED CONTRACTORS COMPANY



			1,182	
80	1,000	1,3	200	1,40

Hand Injury Prevention with **Material Handling**

Article by: H. Leach

HEALTH, SAFETY & ENVIRONMENT

Within the construction industry and on CCC projects, the most injuries that have incurred are with hands and fingers. Many of the hand and finger injuries occurring on our projects are associated with manual material handling activities (MMH).

Hazards Associated with MMH

Most of the hand injuries that occur with manual material handling (MMH) activities are most commonly exposed to the following physical hazards:

Pinch Points

The most common hazard associated with MMH activities are pinch points and fingers are the most common body part injured when exposed to this hazard. The most common pinch point hazards that exist during MMH activities that could lead to an injury are (but not limited to):

- Mechanical moving parts/objects on lifting or transport equipment.
- One of more objects coming together with notable momentum.

Also, pinch point hazards are usually places that are only big enough to get a finger or fingers into which can cause an injury.

Line of Fire

The second most common hazard associated with manual material handling. Line of fire hazards are usually an object(s) in motion with notable momentum that unexpectedly comes in contact with hands and fingers during an MMH activity. Furthermore, it could also be the hand/fingers in motion with notable momentum that come in contact with a stationary object. Most line of fire hazards that exist during MMH activities occur when there is a loss of control of an object with notable/excessive momentum. Loss of control can occur when passing, receiving, picking up or setting down of tools, equipment, or materials.

Caught in Between

The third most common hazard associated with MMH. A caught in between hazard is similar to a pinch point but on a larger scale. A caught in between hazard is usually when a whole hand, a limb(s) or a person's whole body is caught in between two objects coming together with one or both with notable momentum during an MMH activity.

Hand Injuries Associated with MMH

The most common injuries to the hands and fingers that are normally associated with MMH are:

- Fracture: A fracture or multiple fractures has been known to occur with all 3 hazards highlighted above (pinch points, line of fire and caught in between
- Laceration: Laceration injuries mostly occurs with line of fire type hazards but is also known to occur with pinch point hazards.
- Evulsion: Evulsion injuries normally occur with pinch points and caught in between hazards. н.
- Amputation: Amputation injuries mostly occurs with pinch point and caught in between hazards.
- Abrasion: Abrasions has been known to occur with all 3 hazards highlighted above (pinch points, line of fire and caught in between).



Safe Planning and Prevention Applied to MMH

When it comes to MMH we need to work smarter not harder:

Planning

Always have an approved Job Hazard Analysis for the work activity that includes MMH steps, hazard identification and mitigations. Conduct the STARRT (Safety Task Analysis Risk Reduction Talk) card prior to starting work to identify hazards in the work location, highlight the notable hazards associated with the work, applying mitigations for each hazard and communicate to all personnel.

Eliminate

Eliminate MMH by using material handling equipment (cranes and forklifts) for large or heavy objects.

Substitute

Break down bulk materials or heavy objects to smaller, manageable objects to be wither moved by MMH equipment (dollies, carts, pallet jacks, etc.) or apply manual material handling for short distance carries.

Most

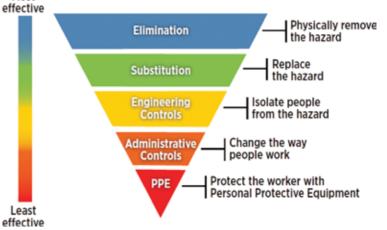
- Engineering Controls Consider the use of any type of material handling equipment to move tools, materials and equipment instead of MMH when possible.
- Administrative Controls Comply with HSE training, rules, and regulations for MMH and hand safety.
- PPE

The right gloves must be worn for the assigned task to protect hands from potential or actual hazard exposure when in contact with construction tools and materials. PPE is considered the last line of defense against unplanned contact/exposure like pinch points, line of fire and caught in between hazards.

Least effective

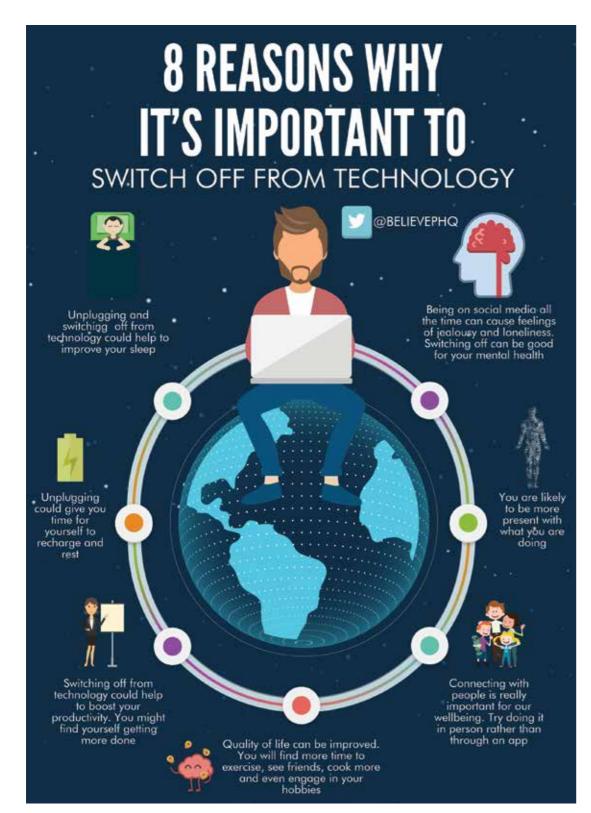


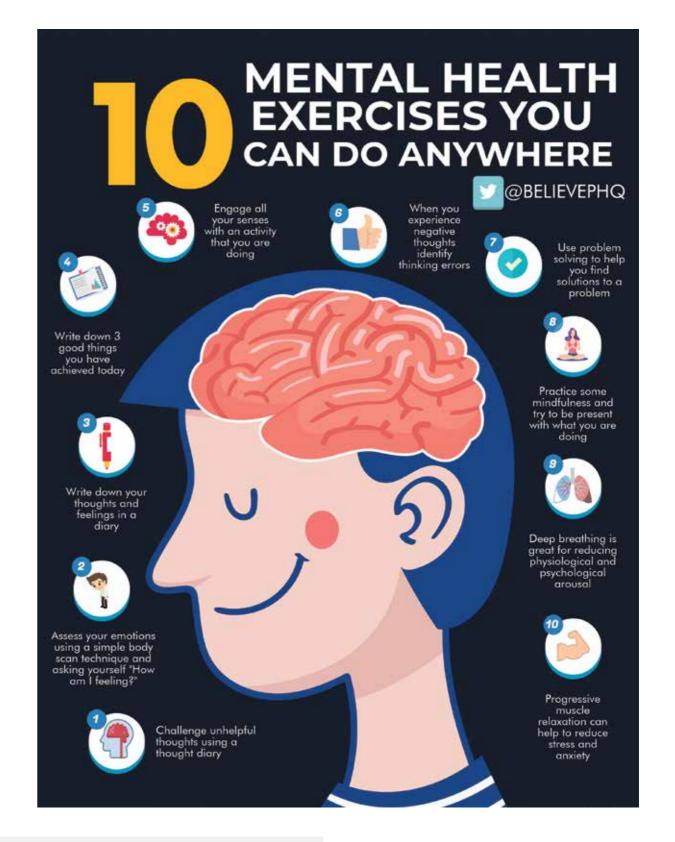
HSE: Hand Injury Prevention with Material Handling



October 2023 Mental Health Awareness

Article by: H. Leach







HSE: Mental Health Awareness, October 2023

CCC Wins the 2023 Corporate Social Responsibility Award



CORPORATE SOCIAL RESPONSIBILITY

Article by: R. Nasser

Contribution to CSR Initiative

CCC Staff are encouraged to come up with ideas and activities related to CCC's CSR Initiatives including Going Green and community involvement events. Please send your ideas, initiatives and achievements to "CSR-CCC" email address csr@ccc.net.

In recognition of CCC's CSR Project entitled "Building Resilience and Self Reliance of Young Women Farmers in Minya, Egypt", CCC won the 2023 Corporate Social Responsibility Award sponsored by TotalEnergies. The award recognizes CCC's unwavering commitment to social responsibility, sustainability, and its exemplary success in improving the quality of life in communities and societies at large.

The CSR Project to support women farmers in Egypt, was in response to the pressing challenges posed by a 24% unemployment rate among women and the paramount significance of the agricultural sector, which constitutes 65% of Egypt's economy. CCC in partnership with Alfanar organization, embarked on a transformative project to economically empower women farmers in upper Egypt that directly feeds into boosting Egypt's productivity, modernizing farming, and building an economically prosperous, sustainable future.

The project's successful outcomes demonstrate CCC's commitment to corporate social responsibility and sustainability, and emphasized key results, including capacity building through the training of Ministry of Agriculture engineers and 400 women farmers, fostering entrepreneurship by selecting and training 50 women entrepreneurs in business skills, ensuring sustainability through the digitization of curricula, and generating positive outcomes such as measurable economic improvement, reduced chemical fertilizer use, and the adoption of sustainable farming practices. Furthermore, the project's social and developmental impact was palpable, with participants experiencing improvements in personal hygiene, home cleanliness, and dietary habits as well as integrating sustainable and healthy agricultural practices learned through the trainings.



The award was received by Saji Khoury; CCC's Business Development Manager at IPLOCA's Convention in Vancouver. "We are deeply honored to receive the 2023 Corporate Social Responsibility Award," said Khoury. "At CCC, our commitment to corporate social responsibility goes beyond compliance; it is ingrained in our values. This award is a testament to the dedication and hard work of our employees who consistently strive to make a positive impact on the communities where we operate."

CCC remains committed to upholding the highest standards of corporate social responsibility, sustainability, and ethical business practices. This award serves as a testament to CCC's ongoing dedication to its employees, communities, and the environment.

CSR Initiatives, Projects, and Volunteering Activities Education and Capacity Building

Article by: R. Nasser

QATAR

Empowerment of Qatari Youth; Youth Entrepreneurship and Employability Preparedness Program

In collaboration with **Injaz AI Arab Qatar**, a program designed to expose high school students to employability, entrepreneurship, future jobs, and professionalism skills was launched in late 2022 and was successfully concluded in May 2023. Entitled **"Youth Entrepreneurship and Employability Preparedness - The Nation Program"**, was delivered by INJAZ al Arab and 6 volunteers of which 3 were CCC's volunteers: Mr. Abdallah Mesmar; Legal Advisor, Mr. Rabih Chehayeb; Project Plant Manager; and Mr. Ihab Rifai; Project Engineer.



The program encompassed conducting engaging classroom sessions, facilitating interactive activities and discussions, and providing valuable guidance and mentorship to 265 students from AbdulRahman Bin Jassim Preparatory School for Boys, the Sudanese School for Boys, and Students who attended the Hamad Medical Corporations Spring Camp. Following the orientation of the students to the program objectives, interactive workshops were delivered focusing on identifying the characteristics of a free market economy, defining entrepreneurship, exploring the process of innovation, understanding that businesses need people with technical skills to support high-growth, high-demand jobs, and comparing career clusters.

The dedicated team of CCC volunteers, who received Training of Trainers (TOT), along with the assistance of 3 corporate volunteers, collectively facilitated the delivery of the Program and played a crucial role in delivering the program curriculum, sharing their expertise, and serving as mentors for the students. They offered guidance, shared real-world examples, provided valuable insights into their respective industries using their expertise and experience which enabled the students to benefit fully from the program. The volunteers themselves were highly satisfied by the opportunity to deliver and mentor the students. Chehayeb, one of CCC's volunteers thanked Injaz AI Arab by saying: *"Thank you for the opportunity to participate in such an amazing program. I am glad to see the students' feedback and to be able to make a positive impact on them."*

The program fostered financial literacy, entrepreneurship, and work readiness among the school students aged between 12 and 16-year-old. In addition to the engaging sessions with the volunteers INJAZ Qatar delivered a series of workshops and hands-on activities designed to equip students with essential skills and knowledge related to personal finance, business management, and career exploration. In one of the testimonials provided by the students, Abdullah Tareq said: "The Nation Program opened my eyes to the world of entrepreneurship. I learned how to manage money, think creatively, and work as a team. It has inspired me to dream big and consider starting my own business someday. I'm grateful for the opportunity to be a part of this program."



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PALESTINE

Start-Ups and Work Readiness Program for Palestinian Youth

Launched in cooperation with INJAZ AI-Arab in Palestine, CCC's supported program entitled "Start-Ups and Work Readiness for Palestinian Youth" program came to a successful conclusion with the "National Young Entrepreneurs Competition" closing ceremony held on August 23, 2023. The project aimed to foster young Palestinians' entrepreneurial spirit and skills and support them in creating their own innovative businesses. Over the course of one year, INJAZ Palestine trained and mentored 146 high school and university students (93 females and 53 males) from Gaza, Ramallah, Jenin, and Nablus, who developed their own products and services and competed for and won various awards in the National Young Entrepreneurs Competition.



To deliver the program, a team of 10 experienced volunteers from diverse sectors within the Palestinian private sector were provided with a comprehensive training and a briefing on the program's purpose, action plan and their roles in delivering the program to the recruited students aged between 17 and 22. They were also provided with a training kit containing the necessary materials for the program's duration.

The enrolled students first received theoretical training in various aspects of establishing a business, including product and service selection methods, marketing, sales, among other topics. Following the theoretical phase, the students collaborated with their volunteers in several brainstorming sessions to select a product or service and conducted market research, utilizing the findings as a foundation for launching their enterprises.

The students prepared and trained for the 2-day "National Young Entrepreneurs Competition", which took place at the Ramallah Cultural Palace where the students' achievements were celebrated, and the winners were honored. The results were announced in the presence of various ministries, business professionals, representatives from private sector companies, and partner institutions of INJAZ from different regions. The students showcased exceptional performance during the competition, securing the following awards:

- The "Eco Cycle" student company from Balgis Al-Yemen Secondary School for Girls, Gaza received the Best Media Coverage award.
- The "Icore" student company from the University College of Applied Sciences, Gaza, was honored with the Best Company with Social Impact award.
- The "Teagloss" student company from Birzeit University in Ramallah earned the Best Media Coverage award.
- The "Ara" student company from the Arab American University in Jenin, was bestowed with the Best Company with Social Impact award. The "Purcent" student company from the Islamic Secondary School for Boys in Nablus, received two prestigious awards: the Best Student Company of the Year 2023 and the Best Product award.
- The "Takhzeen" student company from AI-Najah National University in Nablus, was recognized with the Best Product award.



By participating in the program, the students not only acquired a substantial amount of knowledge in business management and entrepreneurship but also embarked on a transformative six-month journey where they effectively stepped into the roles of being both entrepreneurs and employees within a company. INJAZ's General Manager, Rania Kutteneh, said: "We thank all our partners, volunteers, trainers, staff, and especially our students for making this project a great success. We are proud of you all." In turn, CCC is also proud of its support of such a significant program that entices Palestinian youth to build their professional future.

The evaluation of students' experiences with INJAZ yielded promising results, with several noteworthy highlights: 75% of students expressed confidence that their newfound knowledge would empower them to shape their professional futures and 82% of students acknowledged the program's role in enhancing their creative thinking abilities and equipping them with the essential skills needed to manage businesses effectively.

Through this exposure, the students developed a diverse set of skills, encompassing teamwork, effective time management, creative problem-solving, and the capacity to perform under pressure. These acquired skills have a profoundly positive impact on their lives, serving as catalysts for their future success.

AFRICA

Women Researchers Head towards Leadership; Women Leadership Program

The Women Research Leadership Program, supported by CCC and run by the African Research Excellence Fund (AREF), was successfully completed end of January 2023. Launched in August 2022, the program aimed to address the research needs of 20 early-career women health researchers from 10 Sub-Saharan African countries. The program consisted of eight virtual three-hour sessions delivered by expert facilitators, co-facilitators, and guest speakers with diverse experiences in career development, research strategy, international profiles, and grant funding.

The women researchers attended action learning groups where they shared their career challenges and received support from fellow participants and AREF facilitators. They were assigned individual mentors to support their career development, building research teams, and obtaining funding for their research interests.

In the closing ceremony, CCC's CSR Consultant, Rosie Nasser, praised AREF's collaboration and its efforts to equip African researchers with the knowledge and expertise required to be future experts in health and biomedical research and Professor Sir Tumani Corrah, AREF's Founder and co-President, highlighted the significant gaps between men and women in research leadership and encouraged the cohort of women.

The program helped early career women establish themselves as research leaders, address their obstacles, and reach their target goal of soliciting funding and support for their research objectives. It provided post-doctoral research scientists with the opportunity to visualize themselves as leading research scientists, openly discuss solutions, share strategies to deal with gender bias in their professional careers and begin to lead the research agenda that truly affects Africa's health.







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SAUDI ARABIA

Economic Empowerment for Saudi Women; The Workplace Success Program

Launched in 2022, the collaborative **Workplace Success Program** with **Education for Employment** (EFE) reached a successful conclusion with 25 young women trained and placed in jobs in different sectors. Delivered and facilitated by EFE's certified and experienced trainers in two cohorts, the Program consisted of modules such as effective communication using virtual platforms, team adaptability and efficiency, time management, effective teamwork, task prioritization, emotional intelligence, client service excellence, and labor education, employee rights and responsibilities.

The delivered modules all included in-depth intensive exercises and practices and the trainers shared their knowledge and left a great impact on the beneficiaries by teaching essential skills to improve efficiency and productivity in the workplace. CCC's Head of Administration in Saudi Arabia, Mr. Fahad El Eissa, was also involved in the program by addressing the participants and inspiring them before starting their professional careers.



The 25 young women who graduated from the program were all placed in jobs in several growing sectors with different employers, including the Saudi Data and Artificial Intelligence Authority (SDAIA), Emirate of Riyadh Province, and the Ministry of Investment. The beneficiaries were highly satisfied with the Program, Aisha Alanazi said: "Thanks to the inspiring trainer and the trainees, we benefited greatly and enjoyed the training program. Thank you CCC for this opportunity." Another program participant, Rawan Alharbi said: "There is always a new beginning ahead. Thank you Ms. Najla, EFE, and CCC for this opportunity, the beautiful presentation, and the excellent course."

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QATAR

Onsite and Offsite Training for Qatar University Students

In the summer of 2023, CCC Qatar hosted 8 civil engineering student interns from Qatar University to provide them with a practical and first-hand learning experience through a cycle of office and on-site training.

From June to August 2023, the interns went through a theoretical departmental rotation learning journey with time spent at the Health, Safety, Environment (*HSE*), **Human Resources** (*HR*), **Material Control**, **Planning, Quality Assurance and Quality Control** (*QA/QC*), **Procurement, PMV, Engineering, Cost Control**, and **Quantity Surveying** departments. The trainees were also given the opportunity to gain firsthand experience by visiting CCC's construction site at the **North Field East** (*NFE*) **Onshore Project**. The project encompasses general construct-



tion works for a process area, fresh cooling water, west interconnecting pipe rack, heavy lift, and buildings on an **Engineering, Procurement, and Construction** (*EPC*) basis. It includes 4 mega liquified natural gas trains with a capacity of 7.8 million metric tons per annum each, with associated facilities for gas treatment, natural gas liquids recovery, and helium extraction and refining within the Ras Laffan Industrial City.

The time and effort exerted by CCC employees who spent many hours with the interns were appreciated by the students who gained theoretical and hands-on experience. Organized by the Personnel Department in Qatar, the internships fall under one of CCC's CSR main pillars:

- Education and Capacity Building and address 2 of the UN's Sustainable Development Goals (SDGs).
 - → **Goal 4:** Quality Education.
 - → Goal 8: Decent Work and Economic Growth.

UAE

Volunteers Assist Students of the Federal Youth Authority of Abu Dhabi

On **World Youth Skills Day**, CSR in the UAE organized a visit to the **Federal Youth Authority** of Abu Dhabi. The Authority's mission is to promote the empowerment and involvement of youth in vital sectors.

During their visit, CCC's volunteers met with students and fresh graduates, assisting them in drafting and improving their resumes and curricula vitae. This effort aimed to make the documents more professional and appealing, thereby increasing the students' chances of landing a job and shaping their future careers.

Established in 2016, the Federal Youth Authority is part of the **Ministry of Culture and Youth**. Its responsibility is to implement a National Youth Strategy to help youth succeed in market opportunities and lead healthy, productive lives. CCC volunteers were happy to contribute by enhancing and guiding students for a good start in their professional journeys.

QATAR

Volunteering for a Purpose

From the 20th to the 25th of February 2023, 11 volunteers assisted **Education Above All** (*EAA*) in **Doha's 2023 Jewelry and Watch Exhibition** to fundraise money to support marginalized children's education and change the future of many.

Organized into morning and evening shifts, the volunteers helped by providing information about EAA's mission and selling the 30 pieces of bespoke jewelry designed by **Valentino**. The jewelry on display included gold earrings, leather, and metal bracelets donated 100% to EAA and designed with Valentino's classic "V", Swarovski crystals, and **EAA's Educate a Child Program** logo. In addition, the jewelry pieces were sold in Valentino's stores, and 30% of the sales were donated to EAA.

CCC's volunteers had a great experience for a wonderful cause, and they were glad to contribute to EAA's mission of raising awareness about educational funding support for children in need. The effort also contributed to achieving the UN's Sustainable Development Goals of Quality Education (Goal #4) and the Goal for Partnerships (Goal #17).





CORPORATE SOCIAL RESPONSIBILITY

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PALESTINE

Mohammad Dwaikat Provides Valuable Guidance to University Students in Palestine



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Mohamad Dwaikat, System Developer at CCC participated as a volunteer in INJAZ AI Arab's program entitled "Start-Ups and Work Readiness for Palestinian Youth" which aimed to nurture young Palestinians' entrepreneurial spirit and skills and support them in building their own businesses. During his volunteering journey, Dwaikat along with other recruited volunteers, led the program delivery and assisted groups of school and university students in establishing their start-ups and preparing them for the National Young Entrepreneurs Competition.

Besides the provision of a team of students with soft and hard skills, he assessed their proposed business idea and its feasibility and provided them with best practices to follow in starting a new business. He also helped them in improving their presentation skills, and gave them feedback on their business model, the market research, and how to use the SWOT analysis to assess internal and external factors that might affect the business.

His volunteered time in providing valuable guidance paid off as his team members from Al-Najah National University in Nablus were recognized with the Best Product Award for their student company entitled: "Takhzeen". When asked about his volunteering experience, Dwaikat said: *"In my opinion, volunteering as a mentor is the most effective way to pass on our experiences and provide shortcuts for the mentees during their personal and professional journey. A few hours of volunteering have paid off and the team I supported (Takhzeen company) won the best product Award."*





UAE

Empowering of Students with Special Needs on the International Day of Education

On the **International Day of Education**, CCC in the UAE chose the **Ability Center for the Handicapped**, a day school for children with special needs, to engage its employees in giving back to society. On January 23 and 24 CCC volunteers repaired and painted some damaged walls of the Center and spent a day with the students, playing games and entertaining them.

The mission of the Center is to provide academic and social growth and confidence of children with disabilities to help them reach their potential. Besides the sharing of gifts and toys with the students, CCC donated some office furniture and schooling accessories, and stationery that will contribute to the Center's work of creating a fun learning environment for its students. The volunteers did a great job in creating a fun atmosphere by decorating the place with flowers and balloons. Their efforts were acknowledged by the Center's Manager, who presented them with certificates of appreciation.



CSR: Initiatives, Projects, and Volunteering Activities

KAZAKHSTAN

CCC Addresses the Needs of Schools on the International Day of Education

On the **International Day of Education**, CCC donated 10 computers, 2 printers, network accessories, and other equipment to the **Kair-gali Smagulov Secondary School** and **Talgairan Primary School** in Kairshakhta: a rural district of Atyrau. The two schools will use the donated equipment to open a new computer class for their 1,840 enrolled students, many of whom come from low-income families and are orphaned.

After assessing the schools' needs, the CCC team of volunteers consisting of IT specialists assembled and equipped the available computers and office equipment from **CCC's Tengiz project**, repaired those that needed repair, installed them in the classrooms, and connected them to the network. CCC's support was well-timed, as the schools lacked the funds to enhance their operational and development needs and can now start offering computer classes to their students.



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QATAR

Goals4Good Football Tournament

In its efforts to raise funds for its educational programs for children in need in Qatar and globally, **Education Above All** *(EAA)* **Foundation** organized a girls and boys football tournament and an art competition which took place on March 10 at **Doha College**. Ten CCC volunteers participated in the event by volunteering to assist in the registration and seating of players and spectators, distributing food and water to the players, and assisting in the safe exit of tournament attendants. The event brought together students, teachers, and parents from more than 34 schools, of which 3 schools serve children with disabilities.

All the proceeds raised from the event went towards educating disadvantaged children worldwide. Atta Mohiuddin, one of CCC's active volunteers, said, *"I really enjoyed and was honored to volunteer for such a noble cause. Thanks to the CSR team for such an opportu-nity.*" Besides raising funds, the tournament addressed 3 of the UN Sustainable Development Goals (*SDGs*):

- Quality Education (SDG 4),
- Good Health and Well-being (SDG 3), and
- Partnerships for the Goals (SDG 17).





3

CSR Initiatives, Projects, and Volunteering Activities Crisis Relief and Humanitarian Aid to Socially Disadvantaged Groups

Article by: R. Nasser

Earthquake Relief for Syria and Türkiye Campaign

In response to the devastating earthquake that struck **Türkiye and Syria on February 6, 2023**, CCC launched an **Earthquake Relief for Syria and Türkiye Campaign** among its employees.

Those who wished to contribute were given a list of NGOs working on the ground in both countries, these included the Syrian and the Turkish **Red Crescent**, **Doctors without Borders**, **Save the Children**, and the **International Committee of the Red Cross**. Thanks to the more than 50 donors who helped in alleviating some of the suffering and helped the NGOs to provide lifesaving support such as medical care, shelter, food, and psychological support for the thousands of displace and injured victims.

GREECE

When the Going Gets Tough CCC Employees Rise up to Help



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In response to storm **Daniel** that caused the devastating floods in northern region of Thessaly in Greece, **CSR** in Athens organized a **Flood Donation Drive** in cooperation with **HELPHellas**, an organization concerned with social contribution and the creation of a new generation of active citizens with a high sense of individual social responsibility.

With the generous support for their fellow humans CCC employees donated a truckload of much needed supplies such as bottled water, medical supplies, personal hygiene products, disinfectants and cleaning supplies which was delivered to the victims of the floods in Trikala, Karditsa, Larissa, and Volos. In a thank you note from the Vice President of HELPHellas; Ms. Antigoni Oraiopoulou said: *"It was a great pleasure to meet the organizers behind the mobilization and organization of the drive, and their trust and support of HELPThessalia, a big thank you to your amazing team of employees."* Indeed, CCC employees did rise to the occasion and provided some relief to their brothers in Thessaly.

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GREECE

A Christmas Treat to Those Who Need the Most

In December 2022, CCC employees brought comfort and solace to 100 people living on the street or in very dire conditions, by participating in the **"Merry Streetmass"** initiative organized by **CSR** in Athens. While some baked cakes, and wrapped Christmas gifts, others donated supermarket vouchers and hygienic kits as well as winter clothes accessories.

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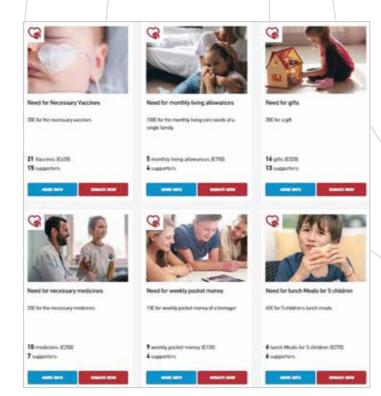


The initiative and volunteering activity was organized with **Emfasis**; an NGO that addresses the holistic needs of vulnerable and socially excluded people who live deprived of safe housing.

CCC Volunteer Provides Crowdfunding Assistance

To support the **Smile of the Child NGO** in its mission to support children and families living in dire conditions and financial difficulties, **Nabil Najjar**, Senior Project Engineer, translated a document about four children's social situation to help the NGO in crowdfunding for their needs.

The current needs include monthly living allowances, costs of medicines and vaccines, and gifts for the children that Smile of the Child is supporting. Najjar's translation into Arabic expanded the NGO's crowdfunding outreach.



EGYPT

Clothes Donation Drive

In August 2023 and in coordination with the **Egyptian Clothing Bank**, **CCC's CSR** in Egypt held a clothes donation drive among employees. The collected clothes and shoes were given to the Clothing Bank, whose mission is to provide the basic needs of clothing for the most underprivileged people, including orphans, students, the elderly, and people with special needs.

Gratitude goes out to the donors who have contributed to the noble mission of the Clothing Bank. With a waste-free model, the Bank is a sustainable charitable organization specializing in reusing unwanted clothes and fabrics by sorting, repairing, and recycling for redistribution to the disadvantaged.



EGYPT / GREECE

CCC Volunteers Help the Food Bank Help Others

Food Banks around the world aim to relieve hunger and poverty in local communities by feeding people in crisis in various ways. In Egypt, and during the month of **Ramadan**, 11 of CCC's volunteers assisted the **Egyptian Food Bank** by packaging **600 Ramadan food boxes for needy families**. This activity was part of the Bank's on-going feeding program that provides food boxes to an average of 250,000 needy families per month, especially those who are unable to work and earn an income.

In Athens the Food Bank has been since 1996 carrying a collection initiative at major supermarkets. CCC volunteers on April 3 and 7 assisted the Food Bank by explaining the Bank's mission, activities and how their donations would help. The volunteers distributed leaflets and handed incoming supermarket clients biodegradable bags to put their donations in. In two days, the Food Bank collected more than **600 bags of food donations**. CCC is proud of its volunteers for their acts of kindness and compassion to those who are less fortunate.





CSR: Initiatives, Projects, and Volunteering Activities



KAZAKHSTAN

CCC Volunteers Distribute Vouchers for Those in Need

Between August 19 and 21, 2023 CCC volunteers distributed vouchers worth 10,000 tenge each to 100 disabled and low-income families in the Atyrau region and the cities of Kulsary and Zhyloyoy in Kazakhstan.

The initiative was organized and coordinated with the local authorities, including the **mayors of Atyrau Zhylyoy** districts and the **Public Association of Disabled People**. The vouchers assisted the families in purchasing their basic food necessities from the local markets. \odot

CSR: Initiatives, Projects, and Volunteering Activities

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SAUDI ARABIA / GREECE / KAZAKHSTAN

Ramadan, the Month of Giving

During the **holy month of Ramadan**, CCC volunteers in **Riyadh** and Khobar volunteered in packaging and distributing iftar boxes to those who are less fortunate during the Month of Ramadan.

In Athens, CCC partnered with the Goodwill Caravan and organized a food drive campaign. Gratitude goes out to those who donated essential food products which were distributed by the Goodwill Caravan to families from Palestine, Afghanistan, Iraq, and Syria bringing them some relief during Ramadan and Eid al Fitr.

Tariq Hamid from CCC joined the Goodwill Caravan volunteers to collect, organize, and package the foods for distribution. He said: "It was a great day with the Goodwill Caravan team and volunteers, we were working all together with the same spirit and with a lot of motivation. What I loved about the experience is even though the volunteers come from different countries we all had a common thing between us which is the sense of humanity and the will to help people who are in need." Tariq was grateful for the opportunity to be part of the campaign and to contribute some happiness for many families during the Holy Month of Ramadan.

In Kazakhstan, CCC's volunteers decided to visit and offer boxes of sweets and candy to 100 orphaned and disabled children. The initiative was planned and organized with the Public Association of the Disabled, the Department of Coordination, Employment and Social Protection, and the Department of Education of Atyrau region. The children were enthused by the visit of the volunteers who made them feel the spirit of the holidays.









CSR Initiatives, Projects, and Volunteering Activities Health

Article by: R. Nasser

Because Blood Donation Saves Lives

Because donating blood saves lives and because one in seven people admitted into hospital need blood, CCC In coordination with private and public entities and health authorities organized blood donation drives on World Health Day and on World Blood Donor Day in 5 countries of operation. Besides saving lives, donating blood provides health benefits for the donors, as regular blood donation is linked to lowering blood pressure and a lowering the risk of heart attacks. The blood donation drives were organized in:

- Greece in cooperation with Amalia Fleming Hospital,
- Kazakhstan in cooperation with the blood center of Atyrau's . Health Department,
- UAE in cooperation with the Abu Dhabi Blood Bank,
- Saudi Arabia in cooperation with the King Faisal Specialist Hospital and Research Center, donations went toward the hospital's cancer patients, and
- Qatar in cooperation with Hamad Medical Corporation (HMC).

Gratitude goes out to CCC employees for their compassion and for their life-saving gifts.





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CSR: Initiatives, Projects, and Volunteering Activities

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GREECE

Passports to Santa Claus Village

Make-A-Wish Greece is an organization that grants wishes to children with critical illnesses. CCC volunteer Dimitra Ntalachani assisted the organization in designing special passports for children who dream of visiting Santa Claus Village in Rovaniemi, Finland, for Christmas.

The process of making a wish includes the journey of the wish that starts from the day the child confides their wish to the day it is fulfilled. When the due date of the wish is late, the Organization carefully offers chosen gifts related to the child's wish such as the created passports to create an atmosphere of joy, hope, and anticipation for the child to cope with the difficulties they face and while they wait for their wish to come true.





50 CCC Employees and their Families Ran, Walked, and Supported the Fight Against Breast Cancer

On Sunday, October 1st, 2023, 44,000 people filled the streets of Athens to participate in the Greece Race for the Cure and show their support for the fight against breast cancer. From CCC, **50 employees** and their families participated by running or walking and joined the thousands to celebrate the 15 years of this event.





Make-A-Wish Greece will be granting 15 passports to 15 children this year. When asked about her volunteering experience, Dimitra said: "I am incredibly proud to contribute to fulfilling children's wishes through my voluntary work with Make-A-Wish. As a long-time volunteer, each experience remains unique and touches my heart. I am grateful for the opportunity to make a positive difference in the lives of these children. Knowing that my efforts no matter how small, play a part in bringing joy and significance to others is truly rewarding." CCC also assisted the organization by covering the printing cost of the passports. Through their work, Make-A-Wish Greece inspires hope, makes dreams a reality, and leaves a lasting impact on these brave children.



Organized by the Panhellenic Association of Women with Breast Cancer "Alma Zois," in collaboration with Think Pink Europe® and the Athens Municipality Culture, Sports, and Youth Organization (OPANDA), the Race for the Cure is the largest sports event for a social cause in Greece and the second-largest Race for the Cure® event in Europe.



With the collected proceeds of the Race Alma Zois will be able to provide psychosocial support programs for women with breast cancer, awareness programs about the prevention and early diagnosis of the disease, programs to advocate for quality care and support for breast cancer patients and finally and in solidarity with the people of Thessaly, a program will be implemented to address the needs of women with breast cancer in the affected areas of the region.

The President of the "Alma Zois" Association, Ms. Paraskevi Michalopoulou, stated: "We deeply thank everyone who, through their active participation, flooded the center of Athens and many areas of our country, conveying messages of prevention, support, and mutual assistance. The participation of everyone in this symbolic race allows us to carry out programs and actions with a substantial impact on the lives of women with breast cancer and every woman. TOGETHER, we always achieve more against breast cancer."

Nabil Najjar Comes to the Rescue

Upon the emergency request by Doctors of the World to translate a medical brochure, Nabil Najjar came to the rescue to translate a brochure into Arabic to help the Arabic-speaking beneficiaries of the Organization. Founded in 1990, Doctors of the World is a medical humanitarian non-governmental organization and is a member of Médecins Du Monde International and has walk-in clinics to cater to the medical needs of those in need. Its activities though are not limited to medical treatment the organization is vocal against the obstruction of access to healthcare, against to violation of human rights and dignity.

Thanks to Nabil Najjar, who managed to help at least **300 people** in a few hours of volunteering. The translated brochure included information about sexually transmitted infections such as HIV-AIDS and hepatitis, explaining what they are, how they are transmitted, and where one can get tested. The General Director of Doctors of the World Greek Delegation said: "The brochure will give the

opportunity for specific and clear information to patients who are Arabic speakers. Your volunteering participation in our work is a valuable and essential gift to those who are vulnerable and need to get the right information about protecting their health. You helped Doctors of the World to provide the best possible service to people that are in need."









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UAE

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Boosting Morale and Building Awareness on World Cancer Day

On World Cancer Day, a group of CCC volunteers visited cancer patients at **Burjeel Hospital** in Abu Dhabi to increase their confidence and boost their morale. The volunteers also distributed brochures at Deerfields Mall to raise awareness on ways to reduce cancer risk, such as having regular examinations, eating a healthy balanced diet, regular physical activity, protection from the sun, and avoiding tobacco use.

Hydration is Key when Working in the Scorching Heat

On September 22, 2023, a group of CCC employees in Abu Dhabi set up a snack stand and distributed bottled water to the construction workers and fishermen at AI Tawila Fishermen's Port in Abu Dhabi. When working outdoors for long hours in the heat dehydration is a major risk, and workers' exposure to heat may be at risk of heat stress which can result in illnesses such as heat stroke, heat exhaustion, cramps, and rashes.

The activity was organized by CSR in the UAE in coordination with the Abu Dhabi Fishermen COOP Society and the workers really appreciated the initiative.

EGYPT / GREECE

Donation of Unused Medicine

On two different occasions CSR in Athens and Egypt initiated an Unused Medication Drive to promote the public health of vulnerable groups of people. According to the Ministry of Health in Greece, it is estimated that every year, medicine worth of one billion Euros ends up in the trash. Many of these medicines that end up in the landfill and drainage, are dangerous for the environment and the public health, as they return to the human organism through the food chain. Donating unused medication or medical supplies does not only help people who live below the poverty line in Greece and Egypt but also protects the countries' ecosystems.

In Egypt, CSR collaborated with Medicine for All Foundation, and in Greece with a Social Pharmacy that caters to the needs of the poor and those who lack medical care. As a result, CCC employees in Greece donated various types of medications ranging from medicines to treat infectious diseases, hereditary diseases, and communicative diseases as well as masks, sterilized gauze swabs, and painkillers. In Egypt, 3 boxes of unused medicines were collected and those who didn't have unused medication provided monetary donations to the Foundation. The Foundation provides treatment

for poor and needy patients by setting up an integrated system to link drug companies, pharmacies, and eligible needy candidates through government and university hospitals and various charity pharmacies.



CSR Initiatives, Projects, and Volunteering Activities **Environmental Actions**

Article by: **R. Nasser**

OATAR / GREECE

CCC Volunteers Participate in Preserving the Natural Environment

On March 9, 2023, 108 CCC volunteers from North Field Expansion (NFE) and Ras Laffan Petrochemicals Project (RLPP) participated in cleaning the Northern Beach at Ras Laffan Industrial City. The Beach Clean-up Drive was organized by Qatar Energy, and all participating volunteers from several companies cooperated and worked tirelessly to clean the beach from plastics, pieces of wood, rubbers, cans, glass, and other waste. Their work and effort were appreciated as they directly contributed to removing toxic chemicals from trickling down to the sea and protecting marine animal habitats, especially the rare species of sea turtles.

Similarly in Greece, in coordination with Saronikos Municipality, and on World Environment Day, CSR in Athens organized the clean-up of Saronida's sandy beach, located 42 kilometers away from the city center of Athens. CCC volunteers, with their family members and friends, spent 2 hours filling 5 large plastic bags of all kinds of waste, including plastics, bottles, and cigarette butts.

Ms. Anastasia Ioannidou, Coordinator of Volunteer Actions in Municipality of Saronikos with the Young Volunteers in Action, delivered a brief speech highlighting the significance of maintaining clean beaches. She emphasized that the presence of microplastics in the sand could eventually end up into the ocean and, subsequent ly, enter our food chain through fish.

Thanks for their efforts, the volunteers contributed to the improvement of the coastal and ocean ecosystem by ensuring that the solid waste does not trickle down into the ocean and kill or disrupt the marine life or aquatic life cycle.





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EGYPT / QATAR

Plant a Tree Today for a Better Tomorrow

In collaboration with the **Misr El-Kheir Foundation**, ten CCC volunteers and family members in **Egypt** spent three hours on July 9, 2023, planting **100 trees** at the **Al-Shahid Mohamed Samir Language School** in Badr City. The opportunity to plant trees in a communal space such as the school allowed the volunteers to positively impact the environment and connect to the land.

In Qatar, CCC's volunteers participated in the Tree Planting initiative organized by Qatar Energy at the Greenbelt Area of Ras Laffan Industrial City (*RLIC*). The initiative brought together volunteers from nine companies who planted 600 tree saplings, of which 185 were planted by CCC's 39 volunteers. The organizers facilitated the activity by preparing the pits and providing all volunteers with water, planting tools, and saplings from the Ministry of Municipality and RLC's nurseries.

Involvement in such environmental activities and engaging employees reiterates CCC's commitment towards environmental sustainability and raising awareness about the significance of such as activity as tree planting in reversing the effects of climate change. In turn, every sampling planted by volunteers will contribute to improving the quality of air that future generations will breathe, as tree plants remove carbon dioxide from the air and release oxygen. Gratitude to the volunteers who contributed to creating a greener, healthier, and more sustainable future for ourselves and the planet.







CCC Volunteers Look After Plant Life in Atyrau

CCC Volunteers in Kazakhstan took measures to care for the planted trees on the green strip of Atyrau and the road strip leading to CCC's premises. The 19 volunteers worked tirelessly to hoe, weed, mow the grass, and water-planted trees. Weeding helps the soil to be aerated, and water can easily reach the roots. When the soil becomes hard over time, loosening it with a hoe encourages plant growth and eases water absorption.

The activity was organized by CSR in Kazakhstan in coordination with the local governors of Atyrau City and Kayyrshakhta rural district.

KAZAKHSTAN

Environmental Awareness and Team Building at Tengiz Field

On **World Environment Day**, CCC in coordination with the **Trade Union Association** organized a **3.6 km Green Marathon race** among employees at **Tengiz** field. The winner, the second and third runners up as well as all Marathon participants received certificates and symbolic gifts. Project Manager **Majdi Taher** congratulated the marathon participants and stressed the importance of preserving and careful use of the natural resources and urged everyone to take responsibility in protecting the natural environment. Present also at the closing ceremony were Project Engineer, **Muhammad Abu Rajab**, and camp manager, **Riad Sekhuani** who congratulated all the runners for their participation.

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CONSOLIDATED CONTRACTORS COMPANY



CSR: Initiatives, Projects, and Volunteering Activities

While some employees raced, others cleaned the residential area from overgrown weeds, household garbage and watered the planted seedlings and organic fertilizers were applied. Environmental awareness was highlighted amongst staff about the importance of maintaining the trees and greenery in the area to fight off the gas contamination, dust, and improve the aesthetic appearance of production bases and residential premises.

Both events served as a catalyst for strengthening teamwork and team spirit amongst employees and reminded them that it is everyone's responsibility to take care of the environment. One does not need to put a lot of money to go green but simple changes in daily lifestyle is all what is required to reduce your carbon footprint on the environment.



KAZAKHSTAN

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Clean-up of the Ural River in Atyrau and Treatment Plants in Tengiz Field

On March 21, 2023, before the snow meltdown, a group of CCC volunteers cleaned up the water protection zone around the Ural **River** to prevent waste from flowing into a river that is considered one of the main waterways of the Atyrau region. The volunteers worked tirelessly to collect 4 tons of waste (plastics, bottles, and other household products) before the spring flooding to protect and improve the ecological condition of the river. The collected waste was delivered to the garbage dump of Atyrau.





On the same day, another group of volunteers in the Tengiz 25 field also carried out a clean-up activity and collected around 300 kg of household waste and mowed and removed 200 kg of dried-out grass around the water storage and sewage treatment plants of the residential base in the Tengiz field and the Abai residential bases.

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UAE

Farming and Beach Cleaning on World Environment Day

World Environment Day is celebrated every year in June to increase environmental protection awareness and encourage action for safeguarding our planet. It was first established by the United Nations General Assembly in 1972, and since then, over 150 countries have participated in various activities to celebrate this day.

In the UAE, CCC Volunteers carried out a couple of activities which included:

- short discussion on environmental protection, where they encouraged people to be more mindful of their actions.



CONSOLIDATED CONTRACTORS COMPANY



CSR: Initiatives, Projects, and Volunteering Activities

• A visit to Mazaraa Farm, where they cleaned the nursery, renewed the soil, planted new seeds, and watered the cultivations with drips and sprays. The farm provides fresh organic produce and uses sustainable farming methods with zero waste. The visit ended with a

Cleaning of Al Bahia Beach from dirt, waste products, and seaweed that had accumulated. In addition, the volunteers put up a poster to alert beach visitors to be mindful and not to throw waste, which can trickle down into the sea and become incredibly damaging to sea life.



CSR Initiatives, Projects, and Volunteering Activities Community Services & Sports Volunteerism

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Article by: R. Nasser

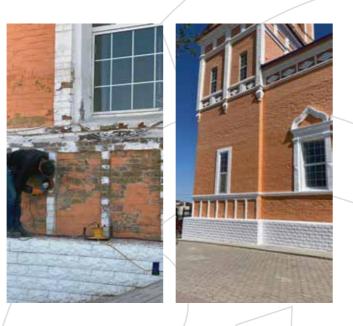
KAZAKHSTAN

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Church Reparation in Atyrau

From April 15 until May 12, 2023, church volunteers worked tirelessly to repair the **Assumption Cathedral** in Atyrau. Built-in 1888, the Cathedral is one of the city's oldest architectural structures, serving around 15,000 churchgoers. Located in the lowest part of the city, the Cathedral is exposed to salt, decomposing the exterior and sometimes the interior of the building walls, and thus needs maintenance every 3-4 years.

CCC volunteers organized and oversaw the repair works, including cleaning the façade walls, partial plastering, and replacing ruined bricks, priming, painting, and treating the interior and external walls with a protective solution against salt. In addition, the volunteers mended the **Sunday School Area** by dismantling the edges and pavement areas, replacing them with new ones, and fixing and painting the decorative plasters. The volunteers' efforts were greatly appreciated as the Church's maintenance is not funded by the State but by the generous donations of the congregation.



Welcoming Ramadan

In preparation for the **holy month of Ramadan**, CCC donated new carpeting for the **Imangali central mosque** of Atyrau. With the help of the mosque's volunteers, the old worn-out carpet was replaced with the new one to cover an area of 450 m² and to welcome the holy month of Ramadan. Religious institutions in Kazakhstan lack national funding and rely heavily on donations from individual worshippers and private businesses for their maintenance and sustenance.

On the first day of Ramadan, March 23, CCC sponsored the iftar served to 500 parishioners after the prayers.





The volunteers were greatly satisfied with their roles in this once in a life-time opportunity and they all contributed to the success of the tournament operations held for the first time in the Arab World. Volunteer **Bala Ravi Syamala** said: *"It was an overall wonderful experience meeting various people from other nationalities."*

All the volunteers received certificates of appreciation in recognition of their commitment as volunteers in delivering the FIFA World Cup 2022.

Atta Mohiuddin Volunteers at the World Judo Championship and Education City Stadium in Qatar

Quality Control Inspector, Mr. Atta Mohiuddin participated as a protocol volunteer during the 2023 World Judo Championship that took place between May 7 and 14 at the Ali Bin Hamad al-Attiyah Arena (*ABHA*) in Doha. A total of 657 Judoka athletes, consisting of 343 men and 314 women, representing 99 countries, participated in the championships that was organized by the Qatar Olympic Committee and the World Judo Federation.

In July, Mr. Mohiuddin again volunteered to coordinate and assist worshippers during **Eid AI Adha** prayers at the **Education City Stadium** which became a permanent location for conducting **Eid AI-Fitr** and **Eid al-Adha** prayers. In addition to the prayers, the stadium hosted a variety of educational and entertaining activities including face painting and games, to engage and delight the attendees. Food and refreshments were also provided, creating a festive and enjoyable atmosphere for all. Originally, an estimated 18,000 worshipers were expected, but the actual number surpassed expectations, with over **35,000** attendees.



CSR: Initiatives, Projects, and Volunteering Activities

QATAR

CCC Volunteers Participate in The FIFA World Cup Qatar 2022

CCC volunteers were among the **20,000** selected volunteers to participate in **FIFA's Volunteer Program** in November and December 2022. Their responsibilities ranged from directing, guiding, and answering various logistical queries of spectators from around the globe, to working as media operations leaders.





CSR Initiatives, Projects, and Volunteering Activities Employee Welfare Activities

Article by: R. Nasser

A 70

International Women's Day: Embracing Equity at the Workplace #EmbraceEquity

Celebrating women's achievements and increasing visibility while calling out inequality is key. This year for **International Women's Day**, CCC chose to **Embrace Equity** at the workplace and celebrated its women employees by holding various events to appreciate their dedication and achievements. In **Egypt**, **Kazakhstan**, **Saudi Arabia**, and **Lebanon** small get-togethers were organized, and appreciation gifts and flowers were distributed. The Day was also celebrated by recognizing 7 of its women employees from various areas of operation for their devotion and distinction in job performance. The nominated women were **Nancy Ammar** from Egypt, **Rita Salloum**, **Abi Aad** from Greece, **Dina Nasser** from Lebanon, **Vasiliki Valogianni** from Qatar, **Modhi Alsubaie** from Saudi Arabia, **Lyazzat Iskandyrova** from Kazakhstan, and **Claris Ijeoma Anyahara** from Nigeria.

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In a message sent out to all employees, Samer Khoury; CCC's Chairman said: "International Women's Day is a day to celebrate and recognize women's social, economic, and political achievements everywhere. For CCC, I call on all of us to embrace equity, equality, and diversity at CCC and build a working place where women can prosper and succeed." He wished everyone a happy women's day and applaud the 7 nominated ladies for their excellence and dedication.

International Women's Day in the UAE

In the UAE, a group of CCC women employees celebrated the day by participating in the events taking place at the **Women Pavilion** at **Expo City** in Dubai where they distributed awareness brochures to enhance the role of women in society, highlight their achievements and recognize women as strong contributors to social, and economic progress.

Their participation in the events allowed them to exchange views on women's role and values and rights in society as well as support Emirati projects initiated by young girls by purchasing products to support their work and distributing them as gifts to Expo visitors.

KAZAKHSTAN

Health Awareness on World Health Day at Tengiz Field

On April 7, 2023, a session on women's health was held for CCC women employees working in the **Camp's Canteen and Residences** at Tengiz Field. The session was delivered by Dr. **Majed Abu Sariya**, Dr. **Bakytkhan Ussipov**, and Dr. **Dina Karagoishina** and was attended by the kitchen staff, as well as the residential housekeeper and focused on how to lead a healthy lifestyle, the importance of sports and eating a balanced nutritional diet.

The session was followed by a table tennis competition between some of the attendees to set the example for others about the importance of exercise. The winners of the competition were presented with certificates and cash prizes by the Project Director, **Majdi Taher**, and the **Chairman of the Trade Union**; **Zhaksylyk Musepov**.









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Fun and Recreation for Children of CCC Employees





Thirty-two children of CCC's employees visited the **Eurasia Wellness Center**, a recreational complex located in Uralsk. The children spent 10 days of fun and recreation in a relaxing atmosphere, playing board games, rafting, swimming, and sports.

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They were accompanied by teachers and representatives of the trade union and the labor relations department.

Sports and Culture Play a Significant Role in Strengthening team spirit at Tengiz Field

On March 23, 2023, a sports and cultural event was organized on the **Nayruz** national and public holiday. The events included a sports competition, a traditional dinner, and dance. All the workers were invited to create their teams to compete against each other in various sports games such as futsal, table tennis, tug of war, and arm wrestling. Nayruz holiday for Kazakhs marks the beginning of a new year and symbolizes goodness, wealth, happiness and love, and a great friendship day.

The event brought together all workers who, besides playing games, sang, danced, and enjoyed the festive dinner in the presence of the Project Director, **Majdi Taher** and Contract Manager **Mohamad Abu Rajab**, as well as the Trade Union Chairman, **Zhaksylyk Musepov**, who gave a lowners paged presented cortificates and gifts to the

who gave a keynote speech and presented certificates and gifts to the winners of the sports competition.

The festivities of the event strengthened the bonding of employees who came together to celebrate friendship and comradeship and to live the spirit and meaning of Nayruz.



QATAR

Preventing the Risk of Cancer Awareness Day

On **World Cancer Day**, an awareness campaign about decreasing the risk of cancer was carried out in all Qatar projects and employees were asked to share the information with their families.

A factual poster about cancer prevention was distributed amongst all employees who shared their photos on social media. In the Upgrading of **Mesaimeer Road Project** (UMRP) for example, information was distributed and discussed using a toolbox talk with more than 700 employees who were engaged in discussion about precaution measures such as regular physical activities, eating healthy, cutting of tobacco use, using sun protection, doing regular check-ups and screenings.



In UMRP employees organized a "picture of excellence" activity where employees took photos holding various tips on ways to decrease the risk of cancer.

SAUDI ARABIA

International Day of Education: Because Communication is Key

On the International Day of Education, CSR in Saudi Arabia initiated Basic English Language and Communication Skills training for its blue-collar workers. The course was held twice a week for two months and focused on the betterment of communication of the participants. Learning new skills and improving their English language will directly contribute to the workers' personal development, enhancing their confidence and self-esteem in acquiring new skills.









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SAUDI ARABIA

Onam Festival at BACS Riyadh Metro Project

On September 8, 2023, CCC organized an event for its Indian employees from Kerala at BACS South Village to celebrate the Onam Indian harvest and cultural festival where a 23 multicourse meal and cake was served as a customary practice in Kerala, India.

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Onam is an annual Indian harvest and cultural festival related to Hinduism and celebrated mostly by the people of Kerala. According to Hindu legends, Onam is celebrated in remembrance of the good governance under the rule of **Daitya King Mahabali**, a mythical king.

The employees who attended the event enjoyed the Kerala folklore dance performance which reminded them of their homeland, family, and friends.

Indian Celebrations at BACS South Village Project

In appreciation of CCC's Indian workers' hard work and contribution towards the **BACS RMP Project**, CCC organized an **Indian Day celebration** on October 8, 2023. The celebratory event served as a platform for the workers to showcase their artistic skills by singing and dancing to music from various regions in India. The event was attended by the **Indian Embassy Community Welfare Officers** Mr. **Moin Akhtar** and Mr. **Bhagwan Meena**, and from CCC, Mr. **Hanna Ghawi**, BACS Delivery Director-Subcontractors, and Mr. **Mohammed Kanso**, South Village Manager, among other senior project representatives.



The event was attended by a large crowd of Indian employees who enjoyed a recreational time together while singing and sheering to the various beats of their country.



77th Indian and Pakistani Independence Day Celebrations

Celebratory events were organized on the 14th and the 15th of August 2023, to celebrate the **77th Indian and Pakistani Independence Days** at **BACS South Village Camp**.

The events were attended by CCC workers, managers, and public officials of both countries who delivered speeches followed by cake cutting to celebrate the occasions.

Safety for Children in the Water

To raise awareness about children's safety while swimming and playing water sports, **CSR** in Athens cooperated with **SAFE WATER SPORTS Organization** in 2021 on several initiatives including:

- Holding five on-line fun educational sessions for the kids of CCC employees aged between 5 and 13 years.
- Translation of 4 mini-education books on safety at sea in the swimming pool and while doing water sports by CCC volunteers in Athens.
- Translation and voice recording of training material and videos by CCC volunteers from Saudi Arabia, Kuwait and Egypt.

Since then, Safe Water Sports produced an e-platform where employees can register their kids to have access to fun interactive games and videos while learning safety guidelines both in English and in Arabic.

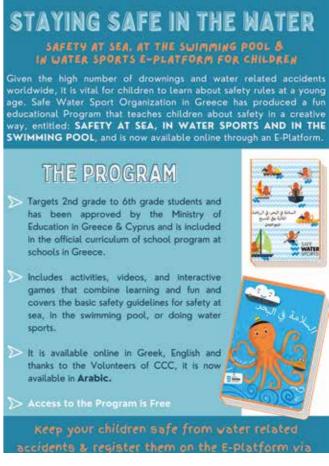
Celebration of Saudi Flag Day

In celebration of Saudi Arabia's Flag Day, a celebratory event was organized and sponsored by Bank Al Habib and Enjaz Bank at Riyadh Metro Project on March 12, 2023. The event included a game competition show and the distribution of prizes to the winners including an air ticket to Pakistan.

The celebration and the game show entertainment were attended by all camp residents, management, and senior officials of both banks.







CSR Initiatives, Projects, and Volunteering Activities **Sports Tournaments**

Article by: R. Nasser

QATAR

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Celebrating Sports on National Sports Day

On National Sports Day and to promote healthy living among its employees, CCC held a Sports Tournament in its project camps. For Qatar, the second Tuesday of February is a national holiday dedicated to promoting a healthy lifestyle among its population, making Qatar one of the few States to dedicate a day off for sports.

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This year on February 14, 2023, and to encourage everyone at CCC to participate in the events of that day, a Sports Tournament was organized where staff members competed in various sports such as volleyball, basketball, cricket, tug of war, table tennis, as well as billiards, and the winners received prizes and cups. In addition, some employees participated in a Workers' Marathon organized by the Private Engineering Office and NAAAS.

The sports events were enjoyed by everyone creating employee bonding and highlighting the positive impact of sports on one's mental and physical health.

EGYPT

Padel Tournament

Between April 13 and 19, 2023, sixteen of CCC employees competed against each other in a Padel Tournament held at the Sky Resort in Cairo. The initiative was organized by CSR in Egypt to enhance employee motivation and team work as well as encourage staff to include exercises in their daily routines.

The final game was attended by CCC's Area Manager Egypt and North Africa, Mr. Mohamad Tareq and the 3 top teams were awarded with gifts and championship cups.



SAUDI ARABIA

Volleyball Tournament



A Volleyball Tournament was organized at South Village Sports Area from 20 July 2023 to 10 August 2023, where 8 teams took part (2 Indian teams, 4 Nepal teams, 2 Pakistan teams).

Cricket Tournament at Rivadh Metro Project

Between March 30 and April 7, 2023, a Cricket Tournament was organized at BACS South Village which brought together 10 cricket teams from various companies.

The tournament was sponsored by Habib Bank Limited (HBL) and organized by Innovative Production Group (IPG) at South BACS Village. Congratulations to CCC's Cricket Team who came in 2nd place taking with them the silver cup.







Oman Celebrates its National Day

Article by: S. Jayyousi

Oman celebrates its **National Day** on November 18th each year, commemorating the reign of **Sultan Qaboos bin Said al Said**, which began in 1970. The day is marked with festivities, events, parades, and cultural celebrations.

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The **CCC Team** in Oman recently gathered to commemorate **Oman's 52nd National Day**, seizing the opportunity to express our gratitude and celebrate the unity within the CCC Oman team. This celebration reflects the spirit of this remarkable nation.

A special commendation is due to CCC (RMD) Mr. **Hisham Kawash** for his pivotal role in bringing the CCC team in Oman together for this memorable occasion. His efforts truly embody the values of collaboration, teamwork, and community focus that resonate with Oman's National Day. As we immerse ourselves in the festivities, we extend our sincere appreciation for his significant contribution to the success of this celebration.

Here's to a joyous National Day and a future characterized by sustained unity, prosperity, and success.





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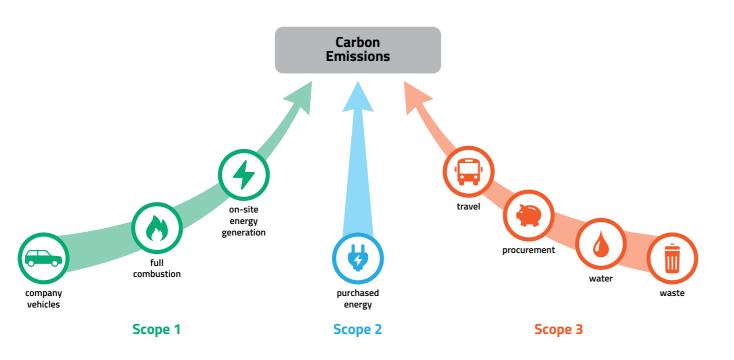
Pilot Study QIN4 Project, Qatar GHG Scope 3 Emissions



The troubling issues facing the world today are the rising accumulation of greenhouse gases and consequent global warming. The effect of global warming is becoming more extreme, and the average temperature levels are being surpassed every year. Ice is melting at unprecedented levels, and natural disasters have become more frequent and more extreme.

Article by: B. Kanj

Climate change has now been proven to be a man-made phenomenon resulting from the injection of massive quantities of **GHG** into the environment. If the volume of all these gases continues to rise in the environment, the earth's surface temperature will also rise quickly above the previous levels.



These GHG emissions are classified into three types. **Scope** 1 are emissions due to fuel consumption; **Scope 2** are emissions due to electricity consumption. These two types of GHG emissions are regularly monitored and calculated by CCC since 2014. However, the third type, i.e., Scope 3 emissions, are quite difficult to calculate in the construction industry due to its complex nature, with different types of companies operating at different points in the value chain, spanning across finance, design, materials manufacture, construction, and life cycle maintenance. **Scope 3** emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain. These emissions include all sources not within an organization's

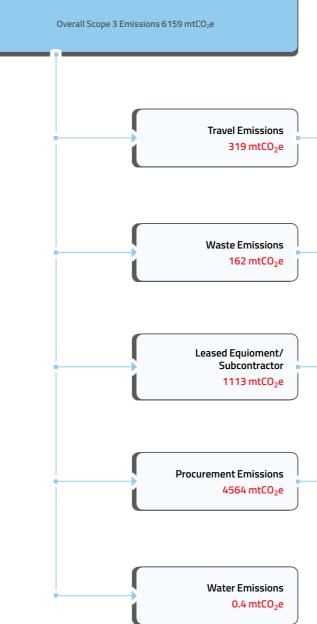


scope 1 and 2 boundary. These emissions, also referred to as value chain emissions, often represent most of an organization's total GHG emissions (*approximately 80% of total GHG emissions*).

Standardized reporting guidelines are crucial to provide external stakeholders with a comprehensive understanding of company's GHG emissions. To address this need, CCC undertook a pioneering effort of measuring the Scope 3 GHG emissions, following the ENCORD Protocol. This pilot project is focused on the QIN4 project in Qatar from June to August 2022. The utilization of ENCORD Protocol ensures a consistent, transparent methodology for reporting critical emissions within the construction sector's value chain.

The objectives of the **GHG Scope 3 emissions initiative** was to strengthen the environmental integrity and increase the objectivity, consistency, and transparency of GHG quantification, monitoring, and reporting, assist in the creation and execution of projects related to greenhouse gases and making it easier to track the results and advancements in GHG emission reduction and/or GHG removal.

The top 3 emission sources from all categories are summarised in the diagram below:



SUSTAINABILITY: GHG Scope 3 Emissions: Pilot Study QIN4 Project, Qatar

- CCC Employee commuting (Petrol) 115 mtCO₂e
- CCC Employee commuting (Diesel) 71 mtCO₂e
- Water Transportation 71 mtCO₂e
- Food Waste Landfill 102 mtCO₂e
 Generate Waste Landfill 34 mtCO₂e
 Timber/Plywood Landfill 18 mtCO₂e
- CCC Leased Equipment Diesel 779 mtCO₂e
 Sub-cons Equipment Diesel 218 mtCO₂e
 Sub-cons Generator Diesel 115 mtCO₂e
- Ductile Iron 4001 mtCO₂e
- Aggregate 316 mtCO₂e
- Cement 95 mtCO₂e

SUSTAINABILITY: GHG Scope 3 Emissions: Pilot Study QIN4 Project, Qatar

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Based on our assessment of **Scope 3 GHG emissions** associated with the QIN4 project during the reporting period of June to August 2022, we concluded that about **65%** of the total emissions were associated with the procurement of **Ductile Iron related materials**. Second highest emissions recorded were due to CCC leased equipment (*Diesel*) attributing to **13%** of overall emissions during the reporting period followed by procurement of aggregate and sub-contractor's equipment and food waste. It is important to note that the study was conducted after **75%** of the project construction was completed and hence involved with limited procurement of assets, equipment, materials (concrete and steel) etc.

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This **GHG Accounting activity** was performed as a part of **CCC's corporate sustainability initiatives**, as a pilot exercise to set-out the guidelines, measurement methodologies, reporting mechanisms, activity data recording/collecting mechanisms, etc. Hence, the results do not represent CCC's overall GHG Emission pattern/position in the industry.

The primary advantage of reporting GHG emissions is to assist in making a difference for our planet. It is becoming more important for businesses to take action in the fight against climate change. GHG reporting is only one of several steps that businesses can take. GHG reporting provides an excellent opportunity to identify areas where CCC can save money, particularly through energy efficiency initiatives. The transparency provided by the GHG report provides insight into where our money is going and areas where it can be reduced, lowering costs for our organization. Being transparent about our sustainability goals can help attract client's and stakeholders to your company's services. CCC will gain clarity about the company's contributions to climate change and what needs to be done by reporting on our GHG emissions.

These insights are precisely what we require to develop a feasible net zero strategy and guide stakeholders to better decision making.

Challenges Faced:

- During this pilot study, we faced a few challenges related to missing activity data such as:
- Weightage in kg / tons for the materials.
- Manufacturer/supplier details (location, distance and type of vehicle used).
- Mode of transportation for materials procured such as sea, air, or land.
- Consumable materials were difficult to track and calculate.

Recommendations:

- Creating Awareness among various departments on the importance of GHG through training.
- Selecting suppliers/vendors through Sustainable Procurement Process (ISO 20400).
- Creating a robust and verifiable GHG Management system with special focus on data collection, monitoring and verification.
- Focusing on top emission sources and creating action plan to reduce emissions from those sources.
- Creating a baseline data, targets, KPIs and action plan towards circular economy and Net Zero.



ExpoDoha 2023 Panel Discussion: Greener Tomorrow

Article by: B. Kanj

On 7th December 2023, **Bassel Kanj** had another opportunity to be a part of panel discussion representing CCC at "**ExpoDoha 2023**" for the **Sustainability Event** hosted by the **British Embassy** partnered with **Cundall** focusing on important topic "**Revolutionising the Infrastructure and Construction Industry Towards a more Sustainable Future**" to shed some light on advancement of sustainable construction and CCC's efforts in transforming itself through innovation, in areas like energy efficiency, using nature-based solutions, leveraging the digital revolution, and integrating renewables towards the pathway in developing sustainable built environment in Qatar.

Some interested questions by the moderator **Daniel Rathwell** which led to some practical insights from fellow panel members as well.



1. A Holistic Approach to Sustainability

Q How does a contractor approach the challenge of sustainability through the procurement & construction phase, including around managing pricing, integrating certification, incorporating tracking and assurance, and calculating the emissions profile of the phase?

At CCC, we take a holistic approach to sustainability. Our vision hinges on the pillars that focus on minimizing our environmental impacts, promoting social responsibility, and maintaining strong governance practices. and ensuring transparency in reporting environmental metrics. One of the critical ways we promote sustainability is by incorporating green building certifications, such as GSAS & LEED, into our construction processes. This ensures that our projects meet the highest energy and resource efficiency standards while also providing a healthier and more sustainable environment for building occupants.

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SUSTAINABILITY: ExpoDoha 2023 - Pannel Discussion: Greener Tomorrow

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We are in process of developing a green procurement policy and CCC has already developed suppliers and subcontractor's sustainability assessment form. The new suppliers and subcontractors are screened for sustainability and social criteria for priority selection. For materials, one of the biggest challenges we face is the upfront cost comparison between a product and its sustainable alternative. While we as sustainability professionals understand the value of choosing a more expensive sustainable alternative, it is still not easy to convince procurement department to choose it. That's why, we consider Life-Cycle Cost Assessment in procurement decisions that lead to longterm cost savings as mostly sustainable alternatives have less operational and maintenance expenses over the life cycle.

We have been actively working with World Economic Forum (WEF)-First Movers Coalition Team on cement and steel sectors for better clean energy technology. CCC committed that a portion (at least 10% by volume) of the steel and cement to purchase by 2030 will be near-zero emission steel and cement.

Nowadays, a lot of priority is given to green building certifications that have made our work easier. Depending on the type of certification being targeted, procurement decisions have a clarity. There is a strict requirement for sustainability sourced materials such as FSC certified wood, recycled material, regional material, material with Environmental Product Declarations (EPD's), low emitting material, reflective roofing material and hardscape surface material with high SRI. For energy and water efficient measures, need to implement energy -efficient HVAC systems, and efficient external and internal lighting systems



to reduce peak energy loads, use smart building technologies to monitor and control energy use, install energy and water submeters that separately monitor systems for in-use energy and water consumption. Use renewable energy alternative such as solar PV systems.

At CCC, we have always targeted green building certification projects as we believe is transforming the world into a more environmentally friendly and sustainable one. As of today, we have completed 14 green building certification projects including Msheireb Metro Station that achieved LEED Gold and GSAS 5 star/ Multipurpose Hall at Lusail Sports achieved 4 stars GSAS Certification, Hamad Port - Container Terminal Project with GSAS 3 Stars certification.

Also, currently we have been working on 5 green certification projects including Qetaifan Island North Project in Lusail and the Msheireb Downtown Doha, phase 4 targeting LEED Gold Green building certification.

We have developed a robust Environment and Sustainability Management system with continuous monitoring and tracking. Our Sustainability strategy was developed in accordance with the Ten principles of United Nations Global Compact (UNGC), Sustainable Development Goals (SDG's) and Global Reporting Index (GRI). This focuses on energy and emissions reduction, recycling construction waste, adopting circular economy principles, endorsing green construction, enhancing business transparency. Based on this, we prepared our Sustainability targets and KPI's that every project report on monthly basis. These KPI report then helps in preparing our Annual Sustainability performance report which we prepare in accordance with GRI standard framework. This is how we track and assure our sustainability performance.

Regarding carbon emissions, adhering to the principle that what cannot be measured cannot be managed, we adopted the Maximo system for reporting our fuel consumption for all our construction equipment in order to calculate and measure scope 1 emissions In assessing Scope 2 emissions, it is crucial to note that our operations predominantly rely on temporary construction sites, where electricity is primarily generated through on-site diesel generators rather than being procured from the grid or utility providers. Our Scope 2 emissions are primarily derived from permanent facilities, such as the head office buildings situated across different countries, which are consistently connected to the grid.

We aimed to measure our scope 3 emissions to understand the full GHG impact of our operations. Although we have been measuring our scope 3 emissions previously in terms of sub contractor's emissions only, now we are running pilot projects to collect activity data on scope 3 emission categories including embodied emissions in materials, transportation, employee commuting etc. and we are following the ENCORD Protocol for reporting Scope 3 emissions.

SUSTAINABILITY: ExpoDoha 2023 - Pannel Discussion: Greener Tomorrow

2. Tools & Techniques for More Sustainable Construction

Q How is the construction industry transforming itself through innovation, in areas like energy efficiency, using nature-based solutions, leveraging the digital revolution, and integrating renewables?

The construction industry is undergoing a transformation through innovation and advanced technologies, with a focus on sustainability. Some key innovations and advance technologies that we have adopted include:

- overall efficiency.
- materials that are locally sourced to reduce transportation emissions.
- stakeholders.
- allows tracking of construction progress at regular time intervals from the same location.
- and rain gardens, to manage stormwater runoff.
- will be available for global export, saving as much as 5 million tonnes of CO2 emissions per year.

3. Panel Session: Revolutionising the Infrastructure and Construction Industry Towards a more Sustainable Future

- Incorporating a holistic approach in the construction tender process, including sustainable design, green building certifications, energy efficient builds, procurement, and eventually, building operations.
- tainable construction.
- Retrofitting and retroactively applying sustainable developments in existing applying assets.

1. Integration of IoT (Internet of Things) devices and sensors to optimize energy consumption, monitor building performance, and enhance

2. Utilization of BIM model to optimize energy efficiency. The construction process can be streamlined, and waste can be reduced. BIM also improve the sustainability of building materials. By using BIM to track the sustainability of building materials, we can ensure that only sustainable materials are used in the construction of buildings. This can include everything from using recycled materials to using

3. Integration of Augmented Reality and Virtual Reality for virtual walkthroughs, safety training, and real-time collaboration among project

4. Adoption of drones for surveying, monitoring construction sites, and capturing real-time data. Drone usage in construction is cost-effective compared to conventional methods, as it minimizes manpower, saves time, improves communication, and documents every detail throughout the job site. Progress monitoring for construction projects becomes easier, faster, and more precise by utilizing drones. It

5. Nature based solutions including Installation of green roofs and walls to improve insulation, reduce heat island effects, and enhance biodiversity, Integration of green spaces within urban environments to mitigate the impact of construction on ecosystems, improve air quality, and provide recreational areas, Implementation of natural water retention and filtration systems, such as permeable pavements

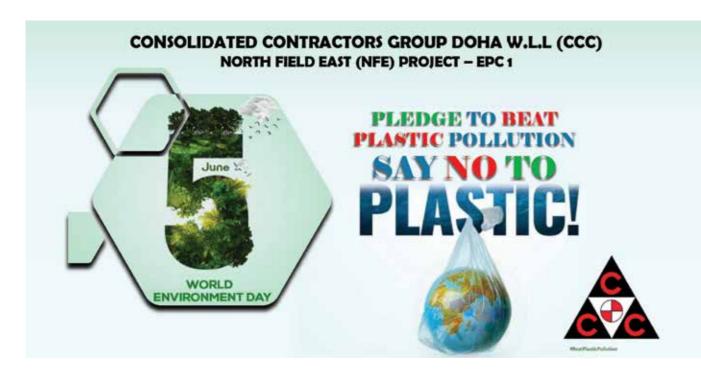
6. Renewable Energy including Increased use of solar panels for on-site energy generation, both during construction and as a long-term energy source for buildings. We are transforming our business portfolio to Green Energy business in the coming few years which can provide a new revenue stream and diversity CCC's Portfolio. We are identifying any possible future opportunities in the sectors of PV Plant (PV solar), Wind Farms (Wind Turbine Generators), waste to energy power plants, , hydropower plants, Green hydrogen, Blue Ammonia, carbon capture sequestration and storage..). We recently completed 50MW Solar PV Powerplant in Egypt and are currently working on the largest Blue Ammonia Plant with QAFCO -7 in Messaied Qatar, with the blue ammonia production being one of the viable options towards reducing the carbon intensity compared to other energy sources such as LNG. Ammonia can be used as a low-carbon fuel for transportation, power generation, steel, cement, and fertilizer production. For LNG, we have a contract with Qatar Energy for North Field East and North Field South project. Both NFE and NFS projects are unique development that minimizes its environmental footprint by design. Both include the largest CO2 capture and sequestration facilities that reduce CO2 emissions to the ambient air and thus curtailing GHG emanating from projects operation. The facilities will capture and sequestrate 11 million ton of co2 per year in 2035. Also, we have signed a contract last year in the KSA for the world's largest green hydrogen plant in NEOM that will operate under renewable power (2GW Wind Turbine & 2GW Solar PV Power plants). Upon completion in 2025, it will produce 650 tons of green hydrogen per day which

7. Prefabrication and modular construction methods to reduce waste, improve efficiency, and minimize on-site disruption. Implementation of advanced technologies, such as 3D printing and robotic assembly, to enhance the speed and precision of prefabrication processes. We constructed the first livable 3D printed single family house for Saudi Arabian Ministry of Housing for which we received Innovation Medal 2020 under GCC Region Category and Innovation Medal in country Saudi Arabia at MEED Projects Awards.

Working together: Rallying the infrastructure industry (Project Owners, Consultants, Contractors, Facilities Management) for sus-

North Field East (NFE) Project World Environment Day, 2023

Article by: **B. Kanj**



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Protecting the environment has become a crucial responsibility for humanity, given the multitude of environmental challenges we face today, such as climate change, global warming, ozone depletion, and pollution of air and water. Our modern way of living fundamentally contributes to these issues, often at the expense of nature. Unlike any other species, humans have a profound impact on the environment, leading to widespread ecological damage.

However, we possess the unique ability to learn from our mistakes and take corrective actions. By making conscious efforts to preserve the environment now, we can ensure a sustainable and thriving future for generations to come.

A. Why do you think it's important to protect the environment?

We humans have maneuvered ourselves into an unpleasant situation and are struggling today with environmental problems, such as climate change, global warming, ozone depletion, and air and water pollution. Unfortunately, our society lives in a fundamentally polluting way, which is at the expense of nature. We are the reason why it is important to protect the environment because no other living being on the planet interferes with nature as destructively as we humans do.



Fortunately, we are capable of learning from our past mistakes and can start today, step by step, to preserve the environment so that our future generations can survive and sustain.

B. Is there anything you are doing to beat plastic pollution in your daily life?

Yes, fortunately it is very easy now to reduce your daily plastic consumption.

- Paper bags are easily available in shopping malls, groceries which I am using instead of plastic bags.
- I have committed to using paper cups for tea or coffee instead of plastic glass.
- Paper straws are easily available now in the market which I have started using at home/work.
- As a company we organize beach clean-up drives to clear up plastic waste from the beaches.
- In case where I have no option but to use plastic, I try my best to reuse the same plastic a couple of times before disposing it.

c. Message to CCC staff

Well, plastic pollution has reached alarming levels, infiltrating every corner of our beautiful planet. It poses a severe threat to our ecosystems, marine life, and even our own health. As a responsible and conscientious team, we have the power to create change and contribute towards a sustainable future.

On this World Environment Day, I would like to share an important message. Let us take this opportunity to come together and make a meaningful difference. As a team, let's strive to reduce our consumption of single-use plastics both at work and in our per-

sonal lives, plan and participate in clean-up drives to remove plastic waste from nearby parks, beaches, or other areas in need.

I am confident that as a team, we can lead by example, inspire others, and contribute towards a plastic-free future. Together, let's celebrate World Environment Day by taking meaningful actions that will shape a more sustainable world for generations to come.

Today, as we commemorate WED, let us recommit ourselves to the cause of being plastic pollution. Together, we can make a difference. By reducing our plastic footprint, supporting innovative solutions, and advocating for change, we can create a world where plastic pollution is a thing of the past.

Remember, the power to beat plastic pollution lies within each one of us. Let us act today for a cleaner, healthier, and more sustainable tomorrow

SUSTAINABILITY: North Field East (NFE) Project - World Environment Day, 2023





MILESTONES

Ahmad Abbadi (EPSO, UAE) and his wife are very glad to announce the birth of their baby boy named **Yahia**, born on 17 October 2023 in Abu Dhabi, UAE.

CONSOLIDATED CONTRACTORS COMPANY

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