



CORPORATE

HSE NEWSLETTER



2018

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Local Project Update

Changi Water Reclamation Plant

C22B Project

CWRP phase 1 was completed back in 2007.

Liquid modules (LM) 1 consists of trains 1 and 2, and LM2 consists of trains 3 and 4. In this Phase 2 project, we now have the task of constructing a new train 5. This expansion of the existing water reclamation plant in Changi has a nominal capacity of 200 million litres per day, using a membrane filtration system.



AERIAL PHOTO OF C22B

TRAIN 5 CONSISTS OF THE FOLLOWING:

Headworks - The Headworks comprises the preliminary treatment consisting of fine screens to remove smaller particles, grit, oil and grease to avoid hindering treatment process.

Primary Sedimentation Tank (PST) - As used water passes through the double-deck sedimentation tanks, heavy particles, mostly organics, settle out at the bottom as sludge. Scrapers move slowly along the floors of each deck to remove these solids.

Bioreactors - After the heavier organic particles have settled out during primary sedimentation, the used water then flows into the bioreactors. Naturally occurring micro-organisms in the used water helps to consume and break down impurities and colloidal organic matter that are suspended in the used water. Air is released from the diffusers at the bottom of the bioreactor to provide an aerated condition that is conducive for micro-organisms to grow and agglomerate. Resulting biomass clumps can be settled out and remove. By keeping the right balance of organisms and food, most of the dissolved solids are removed.

Membranes - The heavy micro-organisms, known as the activated sludge, settle in the secondary sedimentation tanks and are recycled back to the bioreactors. Some are sent for solid processing. This process is also known as the filtration process.

Effluent - Once the liquid treatment process is completed, the clear used water from the sedimentation tanks is then pumped and discharged from the effluent junction chamber.

Safety Quotes

"Safety is a choice you make"

Work Hard | Play Hard

C22B Team Bonding BBQ Session



C22B TEAM PREPARING AND COOKING THE BBQ FOOD TOGETHER HELPED TO PROMOTE TEAMWORK, GETTING TO KNOW YOUR COLLEAGUES BETTER AND IMPORTANCE OF WORK-LIFE BALANCE.



Blood pressure (BP) monitoring is essential because the higher your blood pressure is, the higher your risk of health problems in the future. If your blood pressure is high, it is putting extra strain on your arteries and on your heart. This may also cause a heart attack or stroke.



MONTHLY BP CHECKS ARE CONDUCTED FOR ALL STAFF TO RAISE AWARENESS TO ENSURE BETTER CONTROL OF EVERYONE'S MEDICAL CONDITION.

REUSE, REDUCE, RECYCLE



Saving the Earth is crucial for our future generations. The recycling program was initiated as a contributing factor in helping to create a healthier environment. Good habit starts within oneself. This program helps in nurturing & instilling the good recycling habits amongst the staff and workers. At C22B, we provide recycling bins in order to achieve the goal of being environmentally friendly.

LED Lightings

Taking care of the environment is a responsibility that everyone should feel accountable for. Most of us are already aware of environmentally friendly processes such as recycling to minimise the amount of waste we produce and reduce our carbon footprint. However, a lot of people are unaware of new and upcoming technologies that we can use to help reduce carbon emissions. A good example of this is **LED lighting**, which provides many environmental advantages. LED lights are installed for C22B laydown area as part of our energy saving initiatives in promoting Green and Gracious Builder Scheme (GGBS). Advantages include, no toxic elements involved, less lights needed and six times longer life span.



Solar Powered CCTV

As part of the security concern, CCTV (Closed-circuit Television) are being used. Opting for the right type of camera system is crucial considering a better quality yet having an earth-saving factor. **Solar powered CCTV** are used around C22B premises as a contributing factor to saving energy. Solar powered security camera systems offer the ability to monitor even the most remote locations, harnessing an inexhaustible power source. Installing a traditional wired CCTV system live can disrupt natural and sensitive locations. With solar powered security camera systems, there are minimal infrastructure requirements allowing you to leave the natural environment virtually untouched.



Safety Quotes

"The Key to Safety is in your hands."

Safety Quotes

"Safety First is Safety Always."



Life Saving -AED

Using an automated external defibrillator (AED) on a person who is having sudden cardiac arrest (SCA) may save the person's life. The importance of having AED at a workplace is crucial as accidents are bound to happen and we do not know when we might need it. At C22B, we have a set of AED ready and accessible for usage located in the common area of the site office.

Public Safety And Emergency Preparedness

At C22B, our generator sets for site office are located right next to the office. Hoarding are constructed around the generators to act as a noise barrier. As for emergency preparedness, we have fire points being set up at the allocated areas. Each fire point consists of a first aid kit, 3 fire extinguishers and an air horn.



HSL Abroad

Denko Thilawa Terminal Project

Owner
Denko Petrochemical Management Co., Ltd.

Start Date
15 May 2017

Completion Date
14 April 2018



Driving of piles during sunset



Aerial photo of project site

One of the many challenges faced by the project was to construct alongside an existing jetty where marine equipments have to make way for incoming oil tanker for safety reason. In order to address safety concerns and reduce construction downtime, the project team has to plan and coordinate closely with their neighbour and subcontractors.



Project Safety Board
displaying Safety Information



SAFETY OFFICER GIVING OUT
SAFETY TALK TO THE WORKERS



MONTHLY FRUITS DAY

HSL Abroad

Cilacap Blue Sky Project Raw Water Intake Jetty

PT HSING LOONG INDONESIA

Owner
PT Pertamina

Main Contractor
PT JGC Indonesia

Start Date
1 April 2017

Completion Date
31 July 2017



Embracing the strong belief in Partnership, HSL entered into another joint operation with local contractor (PT EPTCO Dian Persada) for our first foray into the oil and gas project in Indonesia.



With operations in both upstream and downstream business, Pertamina has stringent safety standards and regulations befitting Indonesia's largest oil and gas company, and it is on par with its contemporaries in the international markets. Amidst the expediting nature in the brown field condition, our team overcame many challenges and delivered the project with a top-notch safety performance of zero incident recorded for our very first oil and gas project in Indonesia.



HSL Abroad

Java 7 2x1050mw Coal Fired Power Plant

PT HSING LOONG INDONESIA

Owner

PT Shenhua Guohua Power

Main Contractor

PT China Harbor Indonesia

Start Date

1 April 2017

Completion Date

30 September 2017

A piling project where we fully tested the full capability of our flagship piling barge with average pile length of over 70m, our multinationals crews were faced with their biggest challenge to date. Overcoming the challenge requires close communication from all parties. A lack of concentration will potentially lead to an adverse situation with all the high risk heavy lifting that is in progress.



SAFETY & COMMUNICATION

GO HAND IN HAND

Apart from planning and orchestrating the overall operations, the Piling Barge Captain also has a big role to play in safety aspect. He not only cautions crew on operating at-risk activities, but at the same time, praises employees who regularly do their jobs safely. When we approached the Piling Barge Captain, Dick Wong, on the longest pile feat achieved, he pointed out that the key towards success is effective communication amongst the closely-knitted crew since it builds a more open and positive safety culture which ultimately increases the likelihood that all work practices will be performed safely in the future.

HSE Sharing - Hand Safety

It's More Important Than You Think



INTRODUCTION OF HAND GLOVES AND SHARING OF PAST MEDICAL TREATMENT CASES AT BEDOK CANAL C2



A hand injury is one of the most common types of injury in the workplace. When employees are working with heavy objects, chemicals, moving parts, electricity, and among other things, their hands can be exposed to very harsh conditions as well as the possibility of injury. The most unfortunate part of this is the fact that almost all hand injuries that occur in a given year could've been prevented had the workers been using the correct hand protection. For the year 2017, one third of HSL work related incidents were caused by pinch point injury. As a result, the Safety Department has explored ways to educate and reiterate the importance of going through the checklist as a daily reminder before carrying out a certain task. Fitting test for gloves were carried out to identify the best type of gloves for different job scopes. In addition, hand safety training was carried out during tool box meetings.



HSE Sharing

Standardized Safety Vests & Barricades

Standardized safety vests was first implemented to be worn by HSL personnel across all sites for easy identification. HSL's 4 shared values, Honesty, Fairness & Respect, No Harm to Others and Excellence is printed on the back of the vest. We also have ordered standardized barricades and exclusion zones for trial at several sites. The target is to align HSSE best practices across all sites, both in local projects as well as overseas.



CHANGI RECLAMATION PLANT PHASE 2 CONTRACT C22B TEAM WEARING STANDARDIZED SAFETY VESTS WHILE ATTENDING C22B STAFF SITE WALKABOUT

Safety Quotes

"Prepare and Prevent, Don't Repair and Repent."



A SAMPLE OF THE RED BARRICADE

HSE EVENT

TDP3 FINISHING STRONG CAMPAIGN

ARRIVE SAFE, WORK SAFE, GO HOME SAFE



PROJECT MANAGER, MR YEO GAN HWEI, PRESENTING THE CERTIFICATE AND NTUC VOUCHER TO A SAFETY POSTER COMPETITION WINNER

In addition to HSL and subcontractor workers, stakeholders including Public Utilities Board (PUB) and CH2M representatives attended this meaningful occasion. HSL and subcontractor workers alike took part in the safety drawing competition. Top 3 prizes and 5 consolation prizes were awarded to deserving participants for their creative entries. The top 3 drawings were compiled together into a banner and showcased on site to give a sense of ownership in safety.

Tuas Desalination Plant 3 (TDP3) team launched the "Finishing Strong" campaign on 23 October 2017. With the project expected to be completed in July 2018, it was essential to emphasize the importance of finishing the project strong. The campaign also aims to promote safe work culture and foster worker's cooperation and support.



CH2M CHIEF RESIDENT ENGINEER, MR RAUOF MINA GIVING A MOTIVATING SPEECH TO ALL ATTENDEES



FINISHING STRONG CAMPAIGN



HSE EVENT

HSL SAFETY DAY 2018

LIVING & LOVING LIFE



WELCOME SPEECH BY HSL CEO, MR CHARLES QUEK

HSL's Corporate Safety Day 2018 was held on 12th and 13th January 2018 at HSL's HQ office. The theme for the event was "Living & Loving Life". There were a total of 11 exhibits covering safety topics such as Exclusion Zone Barriers, Falling Objects from Height and Safe Lifting as well as health and environmental topics such as Momsalim, Nutrition (ST Healthcare) and Mosquito Breeding (NEA).

HSL Corporate Safety Video was launched, which highlighted key safety practices and interviews by 3 workers on why they choose to work safely. Engaging skits were presented by Steadfast Engineering & Construction Pte Ltd, Bedok Canal C1 & C2 team and NEA.



FALLING OBJECTS FROM HEIGHT BOOTH BY TUAS DESALINATION PLANT



BEDOK C1 & C2 TEAM SKIT HIGHLIGHTED THE ADVERSE EFFECTS OF DRINKING TOWARDS CONCENTRATION AT WORK



STEADFAST TEAM SKIT WAS ABOUT A SAFETY MANAGER WHO PRIORITIZES WORK RATHER THAN THE SAFETY OF HIS WORKERS

Outstanding employees who portray exemplary performance in cultivating safety and healthy workplace were presented the HSSE Champion Award 2017 award.

Naphtha Import Facilities Project achieved the Safe Project Completion Award in recognition of the team's effort and contribution towards achievement of 2.1 Million Manhours without Lost Time Injury and safe project completion.



HSL EXECUTIVE DIRECTOR, MR WONG CHIN SING ALONG WITH HSSE CHAMPION 2017 RECIPIENTS AND ALL WORKERS WHO ATTENDED ON 13TH JANUARY 2018



ATTENDEES TRIED THE MOMSALIM EXERCISE – KOREAN TRADITIONAL ART OF HEALING THAT BOOSTS IMMUNITY AND PROMOTES GOOD BODY POSTURE



SAFETY TEAM WITH HSL SENIOR OPS DIRECTOR, MR CHRIS LIM AND HSL SENIOR PROJECT MANAGER, MR YEO GAN HWEI



CLOSING SPEECH BY HSL CORPORATE SAFETY MANAGER, MR RAZI



PROJECT MANAGER, MR DANIEL ONG RECEIVED THE SAFE PROJECT COMPLETION AWARD ON BEHALF OF THE PCS-NIF TEAM

Mighty Engineering Pte Ltd

5Y Zero LTI Record

AWARD : IN RECOGNITION OF ZERO RECORDABLE INJURY FOR 5 CONTINUOUS YEARS

CLIENT : Exxon Mobil Asia Pacific Pte Ltd

DATE AWARDED : 1st Mar 2018



MEC was awarded with the recognition of Zero Recordable Injury for 5 continuous years. This was a crowning moment for the Company and the Team. This award is special in more ways than one. Firstly, ExxonMobil is known for its stringent safety requirements and standards, and it also sums up that the safety performance for the company in the plant is impeccable. The team has noted on a common ground that this award does not warrant the team to be complacent but rather continue to work hard to maintain and excel further.

PCS-NIF Safe Project Completion

AWARD : IN RECOGNITION FOR CONTRIBUTING IN OVERALL PROJECT 2.1 MILLION MAN-HOURS WITHOUT LTI FOR SAFE COMPLETION OF NAPHTHA IMPORT FACILITIES PROJECT.

OWNER : Petrochemical Corporation of Singapore Pte Ltd

MAIN-CON : Petrochemical Corporation of Singapore Pte Ltd

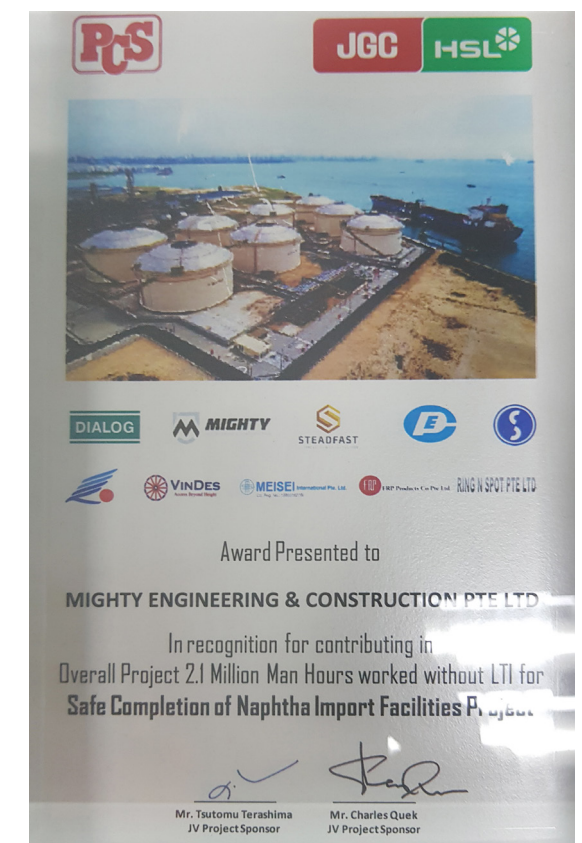
PROJECT : Naptha Import Facilities Project

DATE AWARDED : 1st Mar 2018

MEC was contracted with the task of constructing 8 Tank foundations, numerous civil foundation works, drainage system, roadworks, steel structure works, piping works for the Naptha Import Facilities Project. This project came with high expectations especially with the owner whom



has amassed more than 30 million safe man-hours. We were determined not to be a statistic that broke the record! With 17 months to complete the contracted projects, it did come with its fair share of challenges. With jobs fronting from "Green" field to "Brown", the team overcame the everyday dynamics that was thrown in its path. Overcoming all obstacles, we successfully delivered the project safely without any Recordable injury!



A+ Engineering Pte Ltd

Zero Lost Time Incident

Recognition Owner	: In recognition for achieving Zero Loss Time Incident 2017 : Petrochemical Corporation of Singapore Pte Ltd (PCS)
Project Date	: Maintenance Contractor : 23rd January 2018

A+ was awarded with the recognition for achieving Zero Loss Time Incident 2017. This was a great testament to the team's performance in PCS Plant! This was also a huge morale boost as the team is set to embark on the Petrochemical Corporation of Singapore (Private) Limited Shut Down Maintenance which will be held from July to August 2018. It serves as a note to the team to work hard and more importantly, work safely!



A+ SITE MANAGER, MD. MONIUZZAMAN (RIGHT) RECEIVING THE AWARD FROM PETROCHEMICAL CORPORATION OF SINGAPORE (PCS) PRIVATE LIMITED MANAGING DIRECTOR, MR. AKIRA YONEMURA



Recognition : Certification in OHSAS 18001 & BizSafe Star



Recognizing the importance of the Workplace Safety & Health Management system, A+ has embarked on the journey 1 year ago. This recognition is a testament that A+ has a robust Workplace Safety & Health Management system and rightfully complies with its policy of "Continual Improvement" in its safety policy.

730 Man-Days LTI Free celebration

A+ Engineering Pte Ltd achieved 730 Safe Man days on 1st November 2017 and celebrated on 12 January 2018 in PCS. This event was special as we were made role model for other contractors to follow suit. PCS Mechanical manager, Mr. Balakrishnan gave an encouraging speech to the team to motivate them for the year ahead. The celebration did not stop at the workplace. It was continued the next day at cherry loft, as the management believes to actively reward the workforce for their achievement and it was also a good way to take their mind off work and focus on healthy activity that was planned for the day.



A+ ENGINEERING PTE LTD CELEBRATED THE PRESTIGIOUS DAY WITH PCCA ON 12 JANUARY 2018.

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