



Asiافlex Products Sdn. Bhd.



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Introduction



Message from Vincent Julien, Director Flexibles Operation Asia Pacific (APAC).

At Asiaflex Products, the Health and Safety of our employees, visitors and subcontractors is our absolute priority. We are here at Asiaflex Products feel that our commitment of “No Injury or Harm To People, as well as No Damage To The Environment” is achievable and sustainable. Our aim here at Asiaflex Products is to also emulate the philosophy of “Protecting the Health and Safety of our people is a core value and an absolute commitment”.

TechnipFMC Flexible Pipe Manufacturing Plants

Flexi France
(Le Trait, France)
Workforce: 1,100



Asiافlex Products
(Tanjung Langsat, Malaysia)
Workforce: 407



Flexibrás
(Vitória, Brazil)
Workforce: 1,400



Port of Açú
(Açú, Brazil)
Workforce: 550



TechnipFMC Asia's flexible assets: Asiaflex Products

Activity started in Q3, 2010

- **3 Product Lines**
 - Subsea Flexible Pipes (API17J)
 - Thermoplastic Umbilical
 - Drilling and refining Flexible Pipes
- **407 employees**
- **Facility working 24 hours a day, 5 days a week**
- **Fully certified and qualified**



Manufacturing Process



Extrusion



Spiraling



Armouring



Profiling



End Fitting Mounting Process

Consists of several small machines:

- Pressure Vault Cutting Machine
- Sheath Cutting Machine
- Sheath Machining Machine
- Araldite Injection Machine
- Canulla Jacks, etc.



Facilities in Asiaflex Products



Training room



**Changing room equipped
with shower and individual
locker**



Daily laundry service



Cafeteria



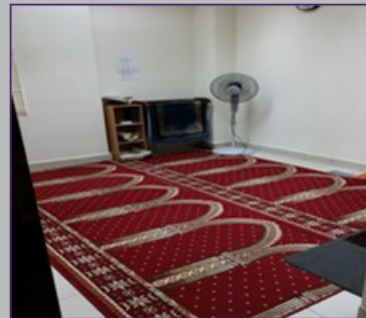
**In-house clinic manage
by nurse and visiting
doctor**



Pantry



Rest area



Prayer Room

HSES Programs and Initiatives

HSE AWARENESS

Children Poster / I See I Act / Management Walkthrough
/ Management Walkabout and Interview / Leadership Visibility / Behavioral
Based Safety (BBS) / HSE Training



HSE EVENTS

HSE Week / HSE Campings



REWARDS AND RECOGNITION

Submission of I See I Act and BBS Observation
/ Monthly HSE Challenge



NEW EMPLOYEE BUDDY SYSTEM

Sticker is attached to the new workers helmet for the first 90 days of
employment



Awareness Programs / Communication



Internal & External HSE trainings



Exhibition and collaboration with external parties



Monthly campaign and quizzes cover variety of HSE topics



**HSE Public announcement
– 4 times daily**



**Daily HSE toolbox for
onsite staff and weekly for
office staff**

SoHELP Implementation

Chemical

E. Level 5 (Excellent)	
C29	<p>Implement ALL action to be taken in the CHRA/SIRAC report</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks :</p>
C30	<p>No new case of occupational disease related to chemicals</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks :</p> <p>No occupational disease been reported since this plant start the operation.</p>

Ergonomic

E. Level 5 (Excellent)	
E12	<p>Full Implementation of Workplace Ergonomic Checklist and Workplace Ergonomic Risk Assessment</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks :</p> <p>Aim at 100% implementation ergonomic program at workplace area activity</p>
E13	<p>No new case of health problem related to ergonomic</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks : Refer JUKP 8</p>

Noise

E. Level 5 (Excellent)	
N21	<p>Implemented and maintain administrative and engineering control</p> <p>X Yes <input type="checkbox"/> No</p> <p>Remarks :</p> <p>i) Included put the grease at sp18 brake in preventive maintenance ii) Install sieve to reduce noise, prevent oil spillage and prevent flying object iii) Install rubber as absorb noise and vibration on rotating part iv) Install silencer at brake system v) Install silencer on Jumbo exhaust system</p>
N24	<p>Continual improvement</p> <p>X Yes <input type="checkbox"/> No</p> <p>Remarks :</p> <p>(Successful) Installed Wall Mounted Digital Noise Meter at SP18 & G203 (extruder) & SP17</p>



CHEMICAL

NURLIANA AQILA BINTI ISAHAK



Chemical Management



LEV – Fume Hood



LEV – Dust Collector



LEV – Elephant trunk



Chemical cabinet



PPE vending machine



Chemical shelter

BEST PRACTICE 1:

RELOCATION STORAGE OF SODIUM HYDROXIDE (NAOH)



Before

Sodium hydroxide previously located inside the WTP. Operator manually lifted 25 liter jerry can and store inside the cage.

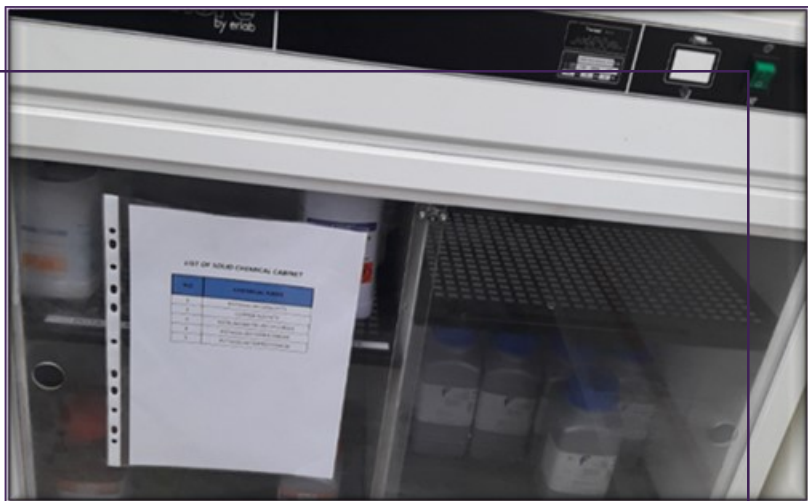


After

Sodium hydroxide cage been relocated to front of WTP and the packaging reduced from 25 liter to 10 liter jerry can.

BEST PRACTICE 2:

ADDITIONAL OF CHEMICALS CABINET



Before

All type of chemicals stored in the same chemical cabinet and only differentiate by different compartment.



After

Flammable, corrosive and dry chemicals been stored in different type of cabinet. SDS is also provided in the flip file at conspicuous location.

BEST PRACTICE 3:

UPGRADE FIRST AID ROOM FACILITIES TO IN HOUSE CLINIC



Before

Previous first aid room manage and maintain by internal nurse.

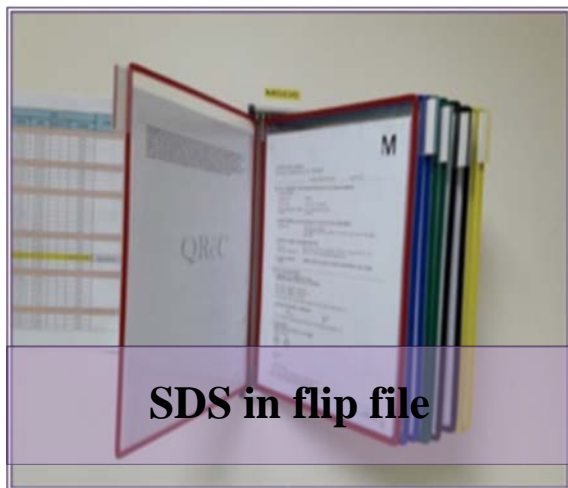


After

Upgrade the first aid room to in-house clinic. In house nurse available every day during normal working hours and visiting doctor is available 2 times per week.

BEST PRACTICE 4:

COMPREHENSIVE RISK ASSESSMENT, PPE MATRIX AND SDS



Individual PPE Matrix for each line

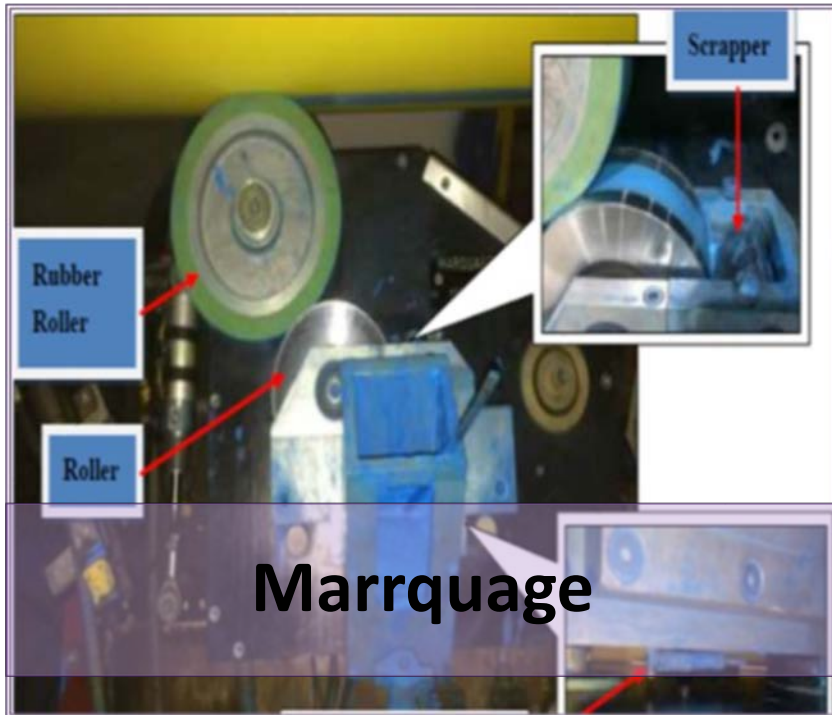
PPE REQUIRED FOR ROUTINE Q2 LAB PROCESS											
HAZARD	EXPOSURE	RESPIRATORY	PROTECTIVE CLOTHING	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT
HAZARD 1	EXPOSURE 1	RESPIRATORY 1	PROTECTIVE CLOTHING 1	PROTECTIVE EQUIPMENT 1	PROTECTIVE EQUIPMENT 1	PROTECTIVE EQUIPMENT 1	PROTECTIVE EQUIPMENT 1	PROTECTIVE EQUIPMENT 1	PROTECTIVE EQUIPMENT 1	PROTECTIVE EQUIPMENT 1	PROTECTIVE EQUIPMENT 1
HAZARD 2	EXPOSURE 2	RESPIRATORY 2	PROTECTIVE CLOTHING 2	PROTECTIVE EQUIPMENT 2	PROTECTIVE EQUIPMENT 2	PROTECTIVE EQUIPMENT 2	PROTECTIVE EQUIPMENT 2	PROTECTIVE EQUIPMENT 2	PROTECTIVE EQUIPMENT 2	PROTECTIVE EQUIPMENT 2	PROTECTIVE EQUIPMENT 2

HIRARC

HIRARC											
HAZARD	EXPOSURE	RESPIRATORY	PROTECTIVE CLOTHING	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT
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BEST PRACTICE 5:

AUTOMATION



Use of marrquage machine in preventing the continuous exposure of the blue ink to the operators



Auto dosing for caustic soda, polymer and PAC inside the treatment tank to prevent from accidental effluent discharge due to human error

ERGONOMIC

SHAHIFULANUWAR BIN YAHYA



IMPROVEMENT 1:

INSTALLATION OF THE SCISSOR TABLE



Before

Manual handling required bending posture to transfer material into the container

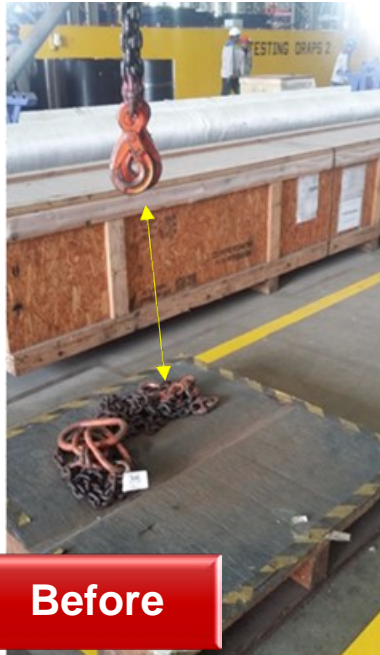


After

Providing the scissor table to minimize awkward posture during the material transfer

IMPROVEMENT 2:

INSTALLATION OF THE SLING CHAIN HANGER



Before

Manual handling to connect the sling chain from the floor to the overhead crane



After

Installation of the hanger for sling chain at the same height of the overhead crane hook

IMPROVEMENT 3:

INSTALLATION OF THE HANGER FOR CUTTER



Before

Manual handling for using the heavy tool (cutter)



After

Installation of the hanger for the heavy tool (cutter)

IMPROVEMENT 4:

REFURBISHMENT OF THE CONTAINER CLEANING STATION



Before

Use of mobile platform ladder and over-stretch when doing the tank cleaning



After

Construction of the fixed cleaning platform to reduce the ergonomic risk

IMPROVEMENT 5:

TRANSFERRING THE MATERIALS



Before

Conventional pallet jack for
transferring materials



After

Purchased of the electrical pallet jack
for transferring materials

IMPROVEMENT 6:

CONTINUOUS ERGONOMIC ASSESSMENT



The ergonomic assessment was initially conducted in the year 2012 and all the recommended actions were completed

KAIZEN project in year 2017 – Ergonomic assessment to be conducted again at the Mounting workshop

NOISE

MOHAMMAD HAIROM BIN HASAN



IMPROVEMENT 1:

TRANSFORMATION OF THE EARPLUGS STATION TO THE PPE VENDING MACHINE



Before

Earplugs Station at the
Manufacturing workshop



After

The PPE vending machines provided
at the manufacturing workshop for
easy issuing to the users.

IMPROVEMENT 2:

NOISE INFORMATION TO CREATE AWARENESS



Before

No information available

Excessive Noise Exposure / *Pendedahan Bunyi Bising*

Loud noises can cause hearing loss

[Bunyi yang kuat boleh menyebabkan kehilangan pendengaran](#)

Prolonged exposure to a harmless noise can cause hearing loss

[Pendedahan yang berterusan kepada bunyi yang tidak berbahaya boleh menyebabkan kehilangan pendengaran](#)

Damage from hearing loss is irreversible

[Kerosakan akibat kehilangan pendengaran adalah kekal dan tidak boleh sembuh](#)

Noised induced hearing loss is preventable

[Kerosakan pendengaran yang disebabkan bunyi boleh dielakkan](#)

Prevention involves :

[Prevention melibatkan :](#)

- i) Noise controls / [Kawal bunyi bising](#)
- ii) Safe Work Practice / [Amalan kerja selamat](#)
- iii) Education, Training / [Pendidikan dan latihan](#)



Technip

Safe & Sound



After

Noise information displayed at the
work areas to create awareness

IMPROVEMENT 3:

INSTALLATION OF THE WALL MOUNTED SOUND LEVEL METER



Before

No information on
noise reading
available at machines

Noise level was
manually
monitored every 4
hours



After

Digital Wall Mounted Sound Level
Meter installed at the machines.
At the same time, to create the
awareness to employees for
using the hearing protection

IMPROVEMENT 4:

FULLY ENCLOSED MACHINE



The profiling machine was fully enclosed while running. It can reduce up to 10dB – 15dB of the noise exposure, prevent oil splash and flying object

IMPROVEMENT 5:

INSTALLATION OF SILENCER AT THE REEL CARRIER ROU6 AND ROU12 EXHAUST



Silencer installed for both reel carriers to reduce noise emission from the engines

IMPROVEMENT 6:

INSTALLATION OF NOISE REDUCER AT THE SPIRALLING



Silencer installed at the spiraling machine brakes reduce the brake noise especially while running at 100% speed



Installation of the rubber absorbers to reduce the vibration and noise generation

Thank You

