Asiaflex Products Sdn. Bhd.
Ashari Bin Abu Bakar
Head of HSES

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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

- **Flexibrás** (Vitória, Brazil)  
  Workforce: 1,400

- **Port of Açú** (Açu, Brazil)  
  Workforce: 550

- **Asiaflex Products** (Tanjung Langsat, Malaysia)  
  Workforce: 407
TechnipFMC Asia’s flexible assets: Asiaflex Products
Activity started in Q3, 2010

- **3 Product Lines**
  - Subsea Flexible Pipes (API17J)
  - Thermosplastic 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 managed 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

<table>
<thead>
<tr>
<th>E. Level 3 (Excellent)</th>
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<tbody>
<tr>
<td>20</td>
<td>Implement all actions to be taken in the CH&amp;A SIMPLC Report.</td>
</tr>
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<td>Remarks</td>
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- No new cases of exposure at the site related to chemical hazards.

#### Noise

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<thead>
<tr>
<th>E. Level 5 (Excellent)</th>
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<tr>
<td>20</td>
<td>Implementation and maintain administrative and engineering control.</td>
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<td>Remarks</td>
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- No new cases of health problems related to noise.

#### Ergonomic

<table>
<thead>
<tr>
<th>E. Level 5 (Excellent)</th>
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<tbody>
<tr>
<td>12</td>
<td>Full implementation of workplace ergonomic checklist and workplace ergonomic risk assessment.</td>
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- At least 100% implementation of ergonomic program at workplace area activity.

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<th>E. Level 5 (Excellent)</th>
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<tr>
<td>15</td>
<td>No new cases of health problems related to ergonomic.</td>
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<td>Remarks</td>
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- Refer J/KP 8
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.
All type of chemicals stored in the same chemical cabinet and only differentiate by different compartment.

Flammable, corrosive and dry chemicals been stored in different type of cabinet. SDS is also provided in the flip file at conspicuous location.
Previous first aid room manage and maintain by internal nurse.

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

- SDS in flip file
- Individual PPE Matrix for each line
- HIRARC
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

TechnipFMC
Manual handling required bending posture to transfer material into the container

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)
REFURBISHMENT OF THE CONTAINER CLEANING STATION

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
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

After
Noise information displayed at the work areas to create awareness
No information on noise reading available at machines

Noise level was manually monitored every 4 hours

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.
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