तेल उद्योग सुरक्षा निदेशालय
Oil Industry Safety Directorate
ISO 9001:2015 certified

सुरक्षा संवाद
Suraksha Samwad

An opportunity to learn from mistakes....

Disclaimer

"Presentations are intended for educational purpose only and do not replace independent professional judgement. Statement of facts and opinions expressed in the presentations are solely those of the presenter and unless expressly stated to the contrary, are not the opinion or position of the Oil Industry Safety Directorate (OISD). OISD does not endorse or approve and assumes no responsibility for the content, accuracy, reliability and completeness' of the information provided herein."

Prabhanjan Dixit
VP & Head - HSEF

Master of Engineering in Environmental Engineering from MS University, Vadodara and obtained Advanced Diploma in Industrial Safety and International General Certificate in Occupational Health & Safety from NEBOSH, UK. Lead Auditor in ISO 14001, ISO 9001, ISO 45001 and ISRS.

Over 29 years of Industrial Experience in HSEF field in Heavy Chemicals, Oil and Gas Industry.

Joined Nayara Energy in 2007. Heading HSEF function(including PSM & IMS) for Refinery, Captive power plant & Marine operations

Instrumental in development & implementation of Safety Management System.

Instrumental in getting numerous recognitions nationally and internationally to Vadinar Refinery.

Steering Committee Member at Oil Industry Safety Directorate, MoPNG & HSE Committee Member at PNGRB & at FIPI.

For Educational Purpose

Best HSE Practices

NAYARA ENERGY

For Educational Purpose

HSE Management Systems

NAYARA ENERGY

ISO 9001:2015
Quality Management Systems
Valid up to : Aug 2024

ISO 14001:2015
Environmental Management Systems
Valid up to : Aug 2024

ISO 45001:2018
Occupational Health and Safety Management Systems
Valid up to : Aug 2024

ISO 50001:2018
Energy Management Systems
Valid up to : Aug 2024

OSHA PSM
Process Safety Management

NABH
National Accreditation Board of Health Care
Valid up to : June 2022

For Educational Purpose

NAYARA ENERGY

Health, Safety, Environment and Quality Policy

Nayara Energy, one of the leaders in Oil & Gas industry in India, strives to achieve the best Health, Safety, Environment and Quality Standards. The Company has set the following strategic objectives:

- No Occupational Injuries or Diseases
- No damage to property due to Fire and Explosion
- Minimize adverse Environmental Impact
- Ensure Quality products and services

In order to achieve these objectives, the Company has established the HSEQ management system and is committed to the following actions:

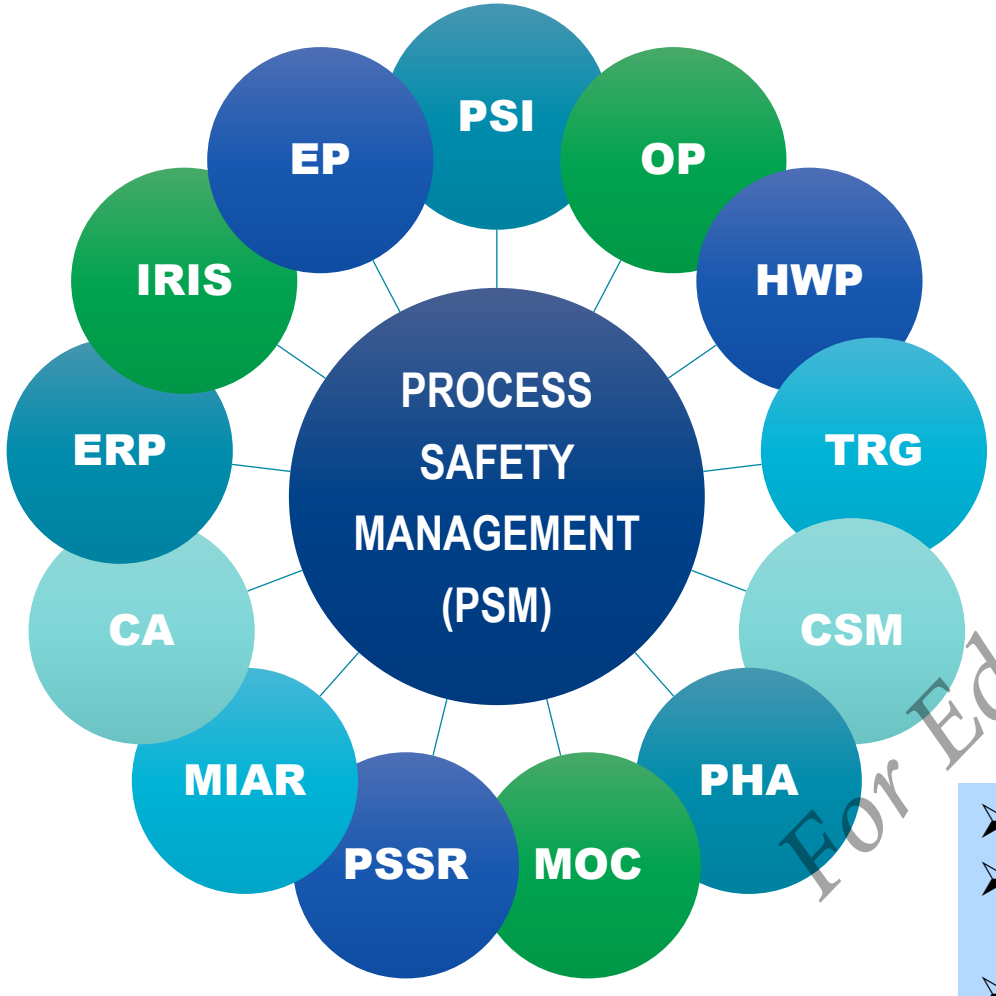
- Comply with applicable legal & other requirements.
- Take appropriate measures to eliminate hazards, reduce OHS risks meant to prevent occupational injuries and diseases, or mitigate the OHS & process safety risks and environmental impacts.
- Conserve natural resources and energy by efficiency improvement, reduction and recycling of wastes.
- Ensure environmental protection, prevention of pollution, mitigate climate change issues and protect biodiversity and ecosystems.
- Promote learning through training, sharing of experiences and best practices; including with contractors and customers.
- Assigning clear roles and responsibilities at all levels, periodically reviewing and recognising contribution to HSEQ objectives.
- Ensure employee participation and consultation for continual improvement of business processes, products, Occupational Health & Safety and Environmental performance.
- Develop and introduce innovative technologies and harness talent to achieve world class performance and total customer satisfaction.
- Periodically auditing work processes, systems and practices to enhance HSEQ performance.
- Disseminate the appropriate information to relevant interested parties.

Date: 14th June, 2021

Dr. Alois Virag
CEO

NAYA/MGT/HSEF/RIMS/HSEQ POLICY

Process Safety



PSI	Process Safety Information
OP	Operating Procedures
HWP	Hot Work Permit
TRG	Training
CSM	Contractor Safety Management
PHA	Process Hazard Analysis
MOC	Management Of Change
PSSR	Pre Start Up Safety Review
MIAR	Mechanical Integrity and Asset Reliability
CA	Compliance Audit
ERP	Emergency Response Plan
IRIS	Incident Reporting & Investigation System
EP	Employee Participation

- Each element has documented Management Procedure
- On line portals for MOC/ PSI/ Audits/ MIAR/ IRIS/ OP/ Training/ PSSR/ RCA/ IRTS
- External PSM audit by M/S ioMosaic.

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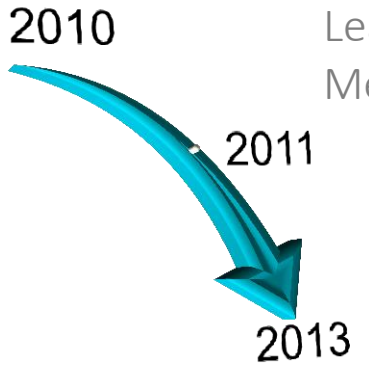
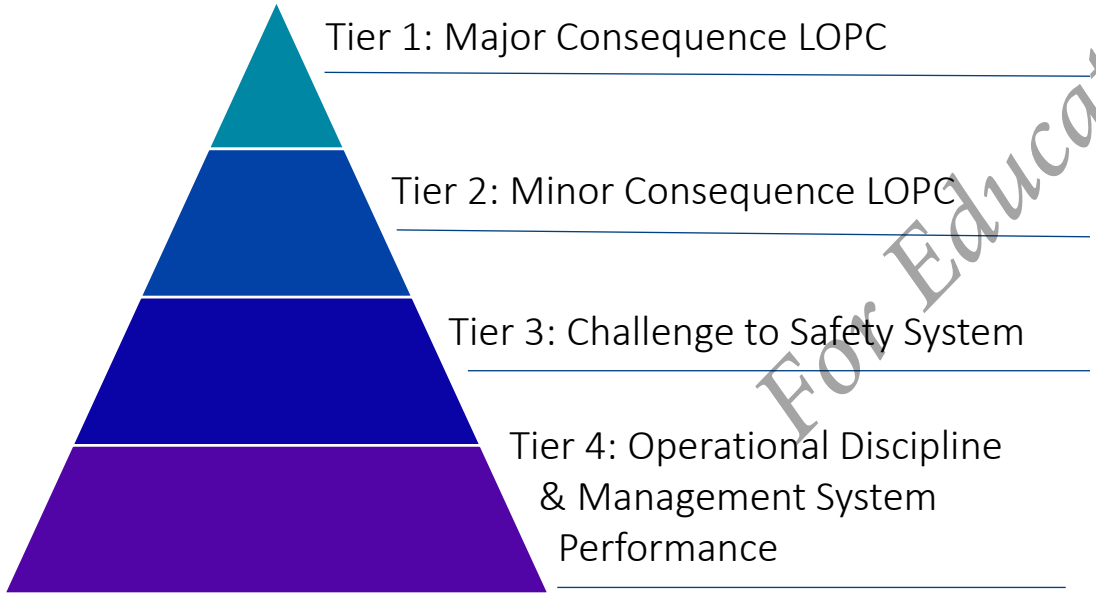
Established Centre for Excellence for Process Safety Management at IIT Delhi.

Monitoring of Process Safety Indicators



Leading & Lagging Indicator Metrics - CCPS

Monitoring of Process Safety Performance Indicators – API RP 754



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Indicators
Tier 1
Tier 2
Interlock Bypass
PSVs calibration overdue
HC Online Clamps
Emergency Drills
Process Near Miss
ITPM %
Recommendations compliance of RCA/HAZOP/QRA/SIL

Monthly HSEF Timeout

- 1st day of Every Month
- 11:00 hrs.
- Schedule prepared by Safety Depts.
- Location : 33 units / buildings
- Participation : Refinery Leadership Team, HoDs, All Area Manager , Plant Safety Coordinator
- Total Participation : 2000-2500 (Approx.)
- Discussion : Previous month incident and activities conducted though out month with current month theme and its planned activities along with any safety issues
- Feedback from contract workmen.
- Recognition of employees and contract workmen for reporting of near miss and sub standard condition.

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HSEF Theme of The Month

January	: Safety
February	: Safety
March	: Safety
April	: Fire
May	: Safety
June	: Environment
July	: Health
August	: PSM
September	: Safety
October	: RIMS
November	: Safety
December	: PSM

HSEF theme is taken up for every month & various programs are organized throughout the month to make employees and contract workforce more aware about activities related Hazards, Risk & its control to make work place safe based on the theme.

- Daily Flash
- Audit/Survey
- Competitions like Quiz, Elocution, Case Study, Poster etc.
- Procedure GAP identification
- Community Awareness
- Card Distribution , Banner Display
- Internal/ external training and Spot training

Theme is taken based on outcome of incident / Nearmiss analysis and based on theme released by Govt. Authorities along with considering other improvement areas.

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Safety Champion Scheme

Safety Champion scheme was launched to recognize safety excellence by individual employees.

- Tenure : 6 months
- Nomination : 30 Employees per batch
- Reward : GEM* points or equivalent for best five Safety Champions and 10 winner prize.
- Increase awareness in respective area through taking safety initiative , sharing lesson learnt, giving tool box talk, spot training.
- Safety inspections round, Audit, Near miss / UCs reporting, and Safety Campaign
- Special projects on identified HSEF issues

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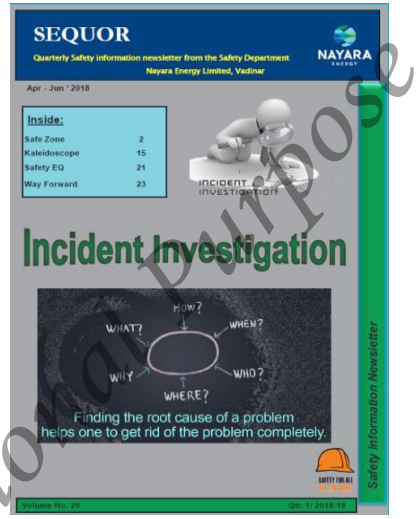
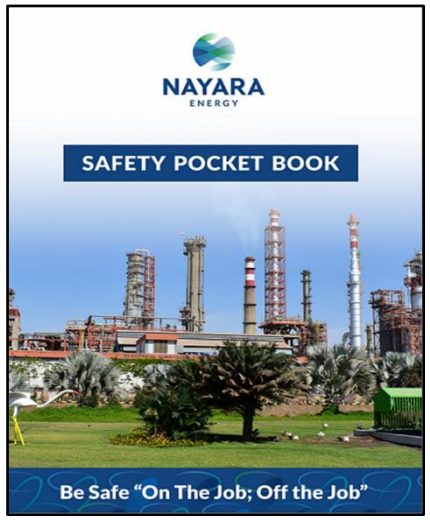
This scheme enhances the participation and ownership / engagement towards safety by employees. It helps to motivate the employee and build safety culture in the organization.

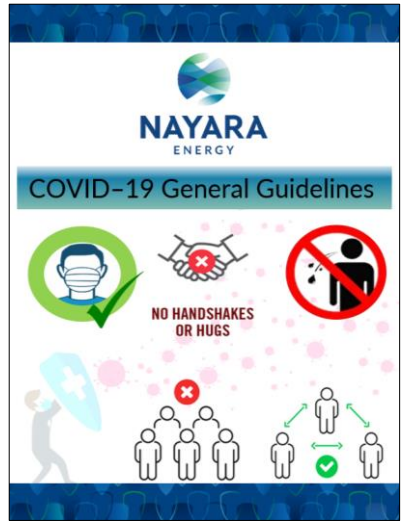
*Going The Extra Mile

HSE Alert / Communication

- “SEQUOR” Quarterly News Letter
- “QUASAFE” – Safety Quarterly HSEF Performance
- “SAFE SATURDAY” & “One Point Lesson” Weekly release
- “Safety / RIMS / PSM / First Aid Pocket Booklet”
- Pamphlets on Do’s and Don'ts, Life Saving Rules, LPG cylinder Safety Tips, TBT, Scaffolding
- Safety Sign Boards at prominent location (On the road and inside the plant) at Refinery.
- Covid - 19 General Guidelines & Safety Alerts
- Display boards for MSDS and Do’s & Don’ts are displayed for non-verbal commination.







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Site Safety Observations (SSO)

- **Employees including senior leadership** team observe at risk-behaviour / safe behaviour in the field.
- Implementation of a safety observation system to enhance Behavior Based Safety:
- Four group of peoples are involved including Traffic SSO

  A Group - Refinery Leadership Team

  B Group - Refinery Leadership Group (HODs / In-charges)

  C Group - PSC Members (Mandatory)

  D Group - Individual

  Traffic SSO by dedicated Team.
- Monthly schedule preparation by Safety Team.
- SSO is carried out at 26 locations of refinery.
- Corrective Actions: All observed unsafe acts, behaviors, and conditions in any area or location must be addressed and acted on immediately.

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SSO - The Six Step Process :

1. Observe, decide how to approach the employee, stop the unsafe act (safely).

2. Comment on safe acts/behavior.

3. Discuss any unsafe/at risk behavior observed.
   - Discuss consequences (possible injury) of the unsafe act/behavior.
   - Encourage the employee to discuss safer ways to do the job.

4. Get agreement to work safely.

5. Invite the employee to discuss other safety issues in the work place.

6. Thank the employee.

Best of Best Scheme

- An operational excellence award scheme, this was devised as a part of promoting operational excellence and to enhance healthy work environment among the employees and contract workmen.
- This scheme was launched by CEO on 7th July, 2021.
- Year long scheme.
- Aspects covered: Leading & Lagging indicators, process safety, operational excellence, maintenance & reliability, people and documentation.
- Winners are awarded with Safety Mementos and GEM Points.

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Process Mock Drills

- Identification of Process emergency scenarios by each unit.
- Mock drill frequency : Monthly including odd hours
- Nos. of mock drill: 2 per month
- Effectiveness checks during cross functional safety audit
- Checking the effective implementation of critical plant SOPs & process control integrity.
- Helps to enhance process critical knowledge and assess the competency of employees.
- Helps to identify the potential weak area and improve effectiveness of preparedness.

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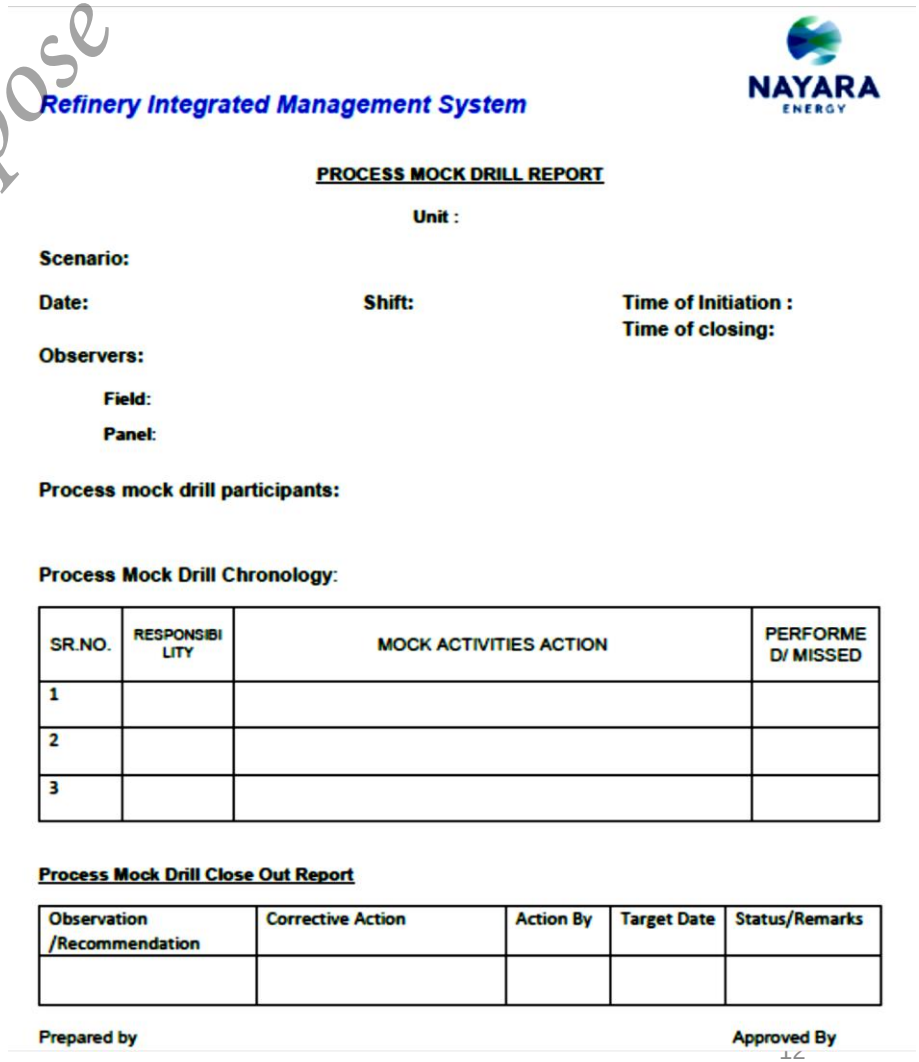

Refinery Integrated Management System

PROCESS MOCK DRILL REPORT

Unit :

Scenario:

Date: **Shift:** **Time of Initiation :** **Time of closing:**

Observers:

Field:

Panel:

Process mock drill participants:

Process Mock Drill Chronology:

SR.NO.	RESPONSIBILITY	MOCK ACTIVITIES ACTION	PERFORMED/ MISSED
1			
2			
3			

Process Mock Drill Close Out Report

Observation /Recommendation	Corrective Action	Action By	Target Date	Status/Remarks

Prepared by **Approved By**

Best Near Miss Award

- Near miss reporting : Employee and Contractor workmen awarded in the HSEF Timeout.
- Bi-monthly Best three near miss reportee identification and felicitation in seven areas. 21 Employees & 21 Contractor workmen awarded with Gift Coupon.
- Yearly Best ten near miss Reportees from Employees and Contractor category – Awarded with Gift Coupon.
- Every Ten Reportee (employee category) are awarded with online certification.
- Highest number near miss reportee contractors are awarded – “Best Three Contractors”.

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Life Saving Rules (LSR)

10 Life Saving Rules (LSR) implemented since 1st December 2012.

	Work with a Valid Work Permit when required.
	Conduct a Gas Test when required.
	Obtain Authorization before entering a Confined Space.
	Verify Isolation before work begins and use the specified life protecting equipment.
	Obtain Authorization before Overriding or Disabling Safety Systems.
	Protect yourself against a fall when working at height.
	While Driving: Do not use mobile Phone. Do not exceed Speed Limit. Must wear your Seat Belt.
	Do not Smoke.
	No Drugs or Alcohol allowed on Site.
	Do not walk under a Suspended Load.

- **Disciplinary Procedure** is implemented to promote safe working environment.
- Violation of **following invite** disciplinary action
  - Life Saving Rules,
  - safety Rules / procedure,
  - Work permit system,
  - Off The Job Safety
- Provides a system to prevent safety violation through punitive actions against every safety violation.
- **Dedicated portal developed** to report, tracking and compliance.
- Monthly review during Management Safety Committee meeting.

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Off The Job Safety Drive

- Focus area – use of seat belt, helmet, non-use of mobile while driving or crossing roads etc.
- Involved more than 150 children for the campaign.
- Monthly schedule for Monitoring of "Off the job safety" @ Jamnagar & Township.
- Constitution of “Off the job safety” committee for township.

Road Safety Pledges

Demonstrations, Skits

500+ Participants

Stand-up Requests

Door-to-Door Campaigns

Panel & Family Discussions

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Competency Mapping

Employee

- Level wise Competency Mapping system
- Online validation including HSE knowledge
- Psychological test
- Training Need Identification based on Skill assessment & interview
- Every four year re-validation
- Job rotation with Validation only

Contractor

- Pre-validation system by EIC
- Post Validation by Safety for Safety officer.
- Assessment through External Agency
- In-house assessment for critical jobs.
- OISD training and validation for supervisor
- Refresher training & validation every two year

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Skill Validation
Gap Analysis & Upgrade

Managing Turnarounds

2009, 2011, 2015, 2018

SSD 2020

No major incidents

Focus areas:

- Competent manpower
- Prior interaction/ kick off meetings with Contractor site in charges.
- Tool box talk(+64000 during SSD 20)
- HSE trainings, visual displays
- Regular safety surveys/ inspections
- Reporting of near misses / unsafe conditions. Immediate liquidations.
- Daily concern communications.
- Unit specific PSSR
- Motivational programs

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Brain Storming Session & Major incidents Gap Assessment

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- Every year **Brain Storming Session** arranged consisting 5 teams (cross functional senior/middle management) .
- Identified improvement areas.
- Outcome with Action Plan is presented to top management for effective implementation.
- **Gap Assessment** is being carried out for all the major external incidents.

NAYARA ENERGY

Thank You

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