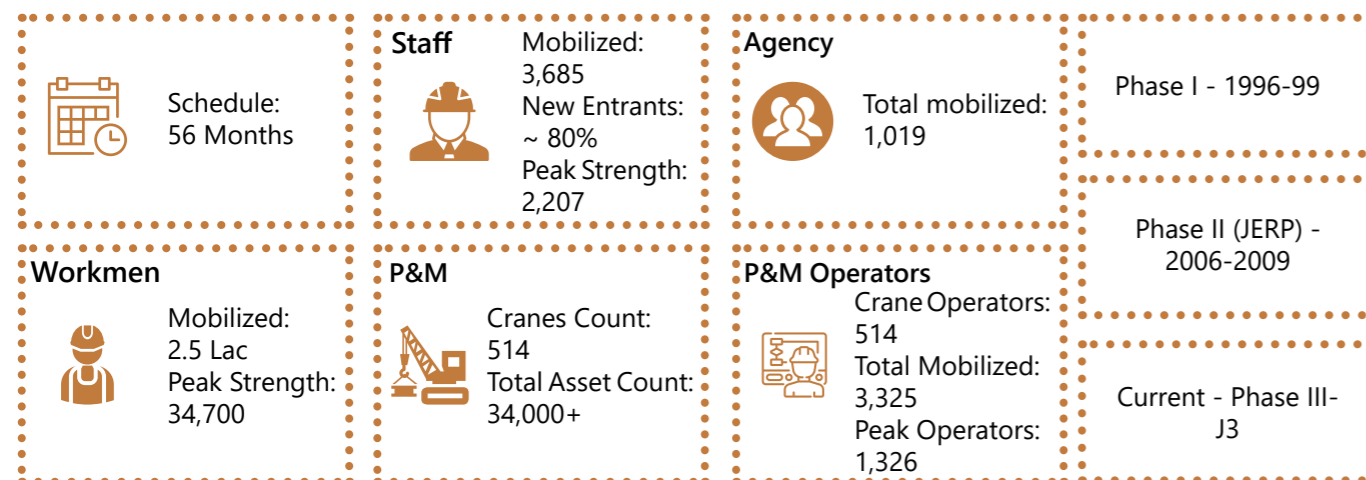


Cultural Transformation in HSE at RIL J-3 Mega Projects

Being a responsible company, the safety of our employees as well as all contracted labour is of paramount importance to us. With each project we undertake, LTHE ensures to implement programs to reinforce and strengthen our commitment to safety.

J-3 Expansion program is the third and the biggest expansion phase of Reliance's Jamnagar Refining Complex, both in terms of quantum and resource pool.



Signature Aspects include -

PET COKE GASIFICATION COMPLEX
Largest Gasification Complex ever endeavored; contributes to 13% of the world's total gasification capacity

C-2 COMPLEX
World's Largest Ethylene Cracker

ETHYLENE STORAGE TANK
45,260 CuM Storing capacity for ethylene at -165 degrees celsius

CHALLENGES

While, J3 Projects have thrown lot of challenges in terms of project complexities, geographical spread and various operational and logistic constraints, in the context of HSE the the key challenges are:

Aligning LTHE HSE Systems to J3 HSE Systems

- Current J3 HSE Ms is more stringent compared to past RIL projects.
- Critical Skill assessment of HSE Staff & Workmen .
- New Employee Development (NED).
- Mandatory 8 hours training for all.
- Specific requirement of Safety Task Assignment (STA).
- Fall protection plan, etc.

Aligning our Business Partners (Subcontractors) to J3 HSE Systems

Considering huge workmen resource requirements and also high workmen attrition rates (continuous inflow of new workmen), all our major subcontractors had to stretch their limit in terms of workmen mobilization and also we had to induct quite a few new agencies, this has thrown the biggest challenge in terms aligning our subcontractors to J3 HSE Management Systems, who are quite new and not fully aware of the J3 HSE MS requirements

Training and Orientation on J3 HSE Platform for all Project Management Staff

With an aggressive project schedule and deployment of huge workmen resources (over 2200 project staff – 80% first timers with LTHE & to RIL), training and orientation for all project staff on HSE systems and compliance requirement was one of the major challenges.

Operational challenges ; implementation of systems to ensure safe work environment

Huge magnitude of multi-disciplinary work along with various work environment factors such as -

- Large number of technological structures with space constraints.
- Concentration of works at higher elevations.
- Interface issues, owing to multiple agencies carrying out multi-disciplinary works in a given location.



Building Blocks and Key Enablers

Our entire HSE system was modelled on ensuring our goal of “Zero Incidents”. In the past year we clocked in over 54 Million – Maximum Safe Man-hours. Our approach to J3 was multifold and has been summarized below.



Visible & Felt Leadership

Apex HSE Committee

Every Tuesday - TFL and central HSE team, Construction Heads, came together to discuss and focus on critical analysis of identified issues/concerns, and devise strategy.

Management safety walk-arounds with Green Helmet

To demonstrate their commitment towards safety, management do safety walk around, led by TFL by donning the green helmet.

Authority to Stop Job

SMS-Based system was introduced where employees were authorized to issue “Stop the Job” Notice, through a simple SMS to the concerned Engineer (with a copy to WBS, Project Manager, HSE Manager & Construction Head.) The Job is resumed only on concurrence by HSE Engineer through a “Resume job” SMS back to the Engineer.



Apex HSE Committee Meeting



Management Safety Walk-arounds

The Highlights

Weekly Time spent for HSE Activities

Designation	Hrs.
Task Force Leader	4
Project Mgr./Const. Heads	10
WBS In-charges	12
Engineers	15



Increasing Individual Accountability – credible system

A HSE credible system is based on integrating HSE into job planning. This system is able to measure overall HSE performance.

Daily, HSE performance of individual Engineers are tracked in the form of a score. *The score is in percentage of what one achieves against what one can achieve. Certain essential HSE parameters for safe execution of job is weighted in the achievable score.*

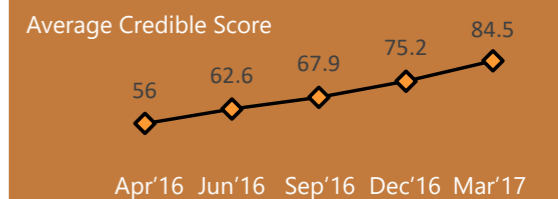
The total score of all engineers under each WBS provides the score of WBS. This system brings about HSE ownership among execution engineers and in-charges while also monitoring their HSE Performance objectively to reduce unsafe conditions at site and creating safe working environment.

Main features include –

- Measuring Individual HSE Performance of personnel
- Encouraging Engineers to systematically Plan their Tasks
- Monitoring performance of different gangs/groups
- More accountability for field Engineers & HSE staff
- Forcing HSE Supervisors to observe each others activities critically.

The Highlights

Daily tracking of the scores brought in the much needed alertness and engagement of individual execution Engineers and WBS into day to day HSE activities at site. Also a closer analysis of the trend of best score clearly indicates progressive improvement in performance since we have started the implementation of the system.



Nurturing and Building HSE Capabilities

- **Behavioral based leadership workshops**
All employees at J3 participates in the HSE leadership workshop conducted by professional Safety Leadership Coach. This workshop enables the employees to become the Safety Ambassador within their area of operation and also motivates to strive for minimal risk through meaningful interventions.

- **Progressive and Comprehensive Orientation and Training for all stakeholder levels**

All new employed have to go through the process of trade validation and undergo the WAH and HSE passport mandatory training. On successful completion they may proceed to undertake a formal gate pass issuance to work on site. Apart from the mandatory training, trade specific training is compulsory

The Highlights

- 1.9 Lac trained in Work at height and HSE passport
- 21,000 trained at material handling
- 12,000 for scaffolding competency
- 1,200 have undergone Leadership training



Behavioral based Leadership Workshops





Innovation & Field Implementation of HSE Systems

Two critical areas, which play a prime role in the context of such mega projects:

- **Communications**
 1. Real time Communication to entire staff on HSE Matters achieved through Mass SMS and WhatsApp Group.
 2. HSE Procedures, incident learnt is converted to posters and displayed at HSE Exhibition Centre
 3. TOWN HALL meetings at Project site to convey HSE Issues with employees and contractor's supervisors.
 4. Weekly Mass Toolbox & craft wise meeting with targeted group
 5. Pre-recorded Marquee HSE announcements were continuously played at each work location
 6. Campaigns
 7. Flipcharts
- **Consultations & Cooperation – engaging and managing safety as a personal choice.**

Just a Minute or JAM is a – discussion amongst the gang prior to task launch encouraging everyone to participate in H&S.

1. One-to-one Communication
2. Gang Safety Leader (GSL) allocated to empower worker to take up safety responsibility for his team; chosen according to his influence on his gang and he is trained and groomed specifically to create peer pressure.
3. Mass housekeeping drive conducted weekly to review HSE best practices.



HSE Exhibition Center

The Highlights	
Campaign	Count
Safety Month Celebrations	4
L&T Safety Day	3
National Safety Week	3
Confined Space Awareness	3
Pinch Point Awareness	4
Dropped Object Awareness	3
Work at Height	5
Road Safety Week	2



Town Hall Meetings



Weekly Mass Tool box



One to one communication

The HSE journey at RIL J3 Projects is one of the most significant events in the history of LTHE Construction Services. While, we have always focused on the HSE across our projects, our experience at J3 Projects has further equipped us to face challenges at such a scale

and has greatly influenced our HSE culture. The J3 projects have contributed towards our endeavor of building capabilities and encouraged us to continue making efforts for the cultural transformation in HSE and to set global benchmarks.

J-3 | HSE | Awards & Recognitions

