

HELMET

 Environment  Health  Safety

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**Building
Safely
Together**

Setting new EHS benchmarks



“ THANKS TO THE EXPOSURE TO AUDIT PROCESSES, LEARNINGS AND OTHER GLOBAL BEST PRACTICES, WE HAVE SIGNIFICANTLY IMPROVED OUR EHS PERFORMANCE WHICH IS NOW ARGUABLY COMPARABLE WITH INTERNATIONAL STANDARDS. ”

P NAGARAJAN, HEAD
EHS, B&F IC

Sometimes, we wonder whether we are performing well? Whether we are climbing the ladder of EHS performance? Whether our performance is comparable to that of global players? There are multiple answers one may get for these queries since we have a mature EHS Management System (EHSMS) with a measurement matrix to monitor EHS performance proactively and reactively for all processes at the workplace. For example, there is the Proactive EHS Performance Monitoring System (PPMS) of employees and workplace performance with measuring tools such as internal audits, Key Performance Indicators (KPIs), Critical Area Safety Audits, and reactive indicators such as frequency rates, severity rates, safe manhours, and such like.

However, these do not entirely answer our question as to how we measure up to global standards and practices. Thus, to find some more answers, we started the British Safety Council's Five Star Audits five years ago, which is the globally recognized audit process to benchmark Occupational Health & Safety performance standards.

In this cycle of five years, we have exposed more than 50 projects as part of the audit process that has given us key insights into our EHS standards. With these key

learnings, we revised our EHSMS and re-deployed it across all B&F projects.

SIGNIFICANT BENCHMARK STANDARDS

Thanks to the exposure to these audit processes, learnings, and other global best practices, we have significantly improved our EHS performance which is now arguably comparable with international standards.

RISK PROFILING

A risk-based approach has been adopted across all our projects that depends on the nature of the project, activities, & scale of operations and the risk profile is derived from the master risk register. Accordingly, collective protection / controls are planned for the high-risk areas identified in the risk profile, that are specially focused on and frequently monitored for compliance.

WORKING AT HEIGHT

Perhaps, working at height is one of the highest risk operations within B&F as we construct high-rise towers of up to 300 m and more. Various controls have been introduced to manage the hazards of working at heights like leading edge protection, opening protection, peripheral protection before casting the slabs, and more. Safety screens and the Auto

Climbing System (ACS) are considered 100% safe as we have not recorded a single incident after adopting these.

A daily fall protection tracker verifies all these controls basis which details of floor-wise number of openings and running meter of edges are ascertained. The compliance to the daily fall protection tracker is displayed at the entrance of each building and even discussed at project, Cluster, and IC levels.

MODULAR MEP SERVICE SHAFT PROTECTION

The collecting protection system such as covering of openings, rails and locking arrangements, etc., are ensured at floor openings. However, once the building structure is completed and the finishing works begins, this protection needs to be removed to enable the work of other services. This process can pose severe hazards and although several administrative controls are in place like handing and taking over from civil and MEP teams, permit systems, and the like, there are still chances that there could be slips to address which, we evolved a new idea and developed a modular service shaft protection, that does not have to be removed when the finishing starts.

“ A MICRO LEVEL BUSINESS CONTINUITY PLAN HAS BEEN INTEGRATED INTO THE EMERGENCY RESPONSE PLAN AS TO HOW BUSINESS CAN CONTINUE WHEN FACED WITH EMERGENCIES, EITHER MEDICAL OR SOME OTHER FORM. ”

This system can easily be fabricated at projects and have been implemented at most B&F sites based on the detailed drawings shared with the projects.

WELLBEING MEASURES

With our focus on Health & Safety including the wellbeing of workmen, we have introduced platforms for them to share their concerns like the 'Touch the Heart' sessions, meetings, and trainings. A bottom-up approach that starts with their wellbeing, this programme is all about lifestyle modification workshops, health surveillance, stress management programs, and the like, achieved by establishing suitable objectives and monitoring them for compliance.

EMERGENCY RESPONSE AND BUSINESS CONTINUITY

Earlier, we had emergency responses but now they are considered a part of business continuity, about how well prepared we are to handle emergencies and maintain business as usual with minimum disruptions when an emergency scenario arises.

A micro level business continuity plan has been integrated into the Emergency Response Plan as to how business can continue when faced with emergencies, either medical or some other form. For example: in a fire emergency, the plan details out the possible locations where fire may occur and accordingly, how those locations can be isolated to prevent the fire from spreading and, at the same time, work can continue at other locations.

As we are into our 6th year, we are preparing for a Stringent, Stimulating and Series of audits for Safer and Sustained performance.

GEARING UP FOR BRITISH SAFETY COUNCIL'S FIVE STAR AUDIT – 2021

Projects for the 2021-22 audits have been shortlisted based on various criteria including proactive and reactive EHS performance and these projects will be audited (as mock audits) virtually to prepare for and comply with the BSC Five Star Audit specifications.

As part of continual improvement, BSC has revised the Five Star audit specifications and the key changes include changing 'Crisis Management' to 'Business Resilience and Recovery', focused on lone working and infection control. The audits are likely to start in September 2021 and will be conducted only virtually because of the pandemic.

B&F won as many as 8 'Swords of Honor' last year. With our improved EHS performance, we are aiming for greater EHS glory this year.

“ IN THIS CYCLE OF FIVE YEARS, WE HAVE EXPOSED MORE THAN 50 PROJECTS AS PART OF THE AUDIT PROCESS THAT HAS GIVEN US KEY INSIGHTS INTO OUR EHS STANDARDS. WITH THESE KEY LEARNINGS, WE REVISED OUR EHSMS AND RE-DEPLOYED IT ACROSS ALL B&F PROJECTS. ”

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“Never walk past an Unsafe Act or Situation!”

Message of S N Subrahmanyam, CEO & Managing Director, Larsen & Toubro on the L&T Safety Day, July 4th, the birth anniversary of Henning Holck-Larsen.

The concept of Safety, in recent times, has assumed an entirely new relevance in our lives, as we have stood together and fought the pandemic. While our own health and safety and that of our employees, workmen and loved ones has been top priority, now with things improving, we need to re-focus, re-align and re-orient ourselves to push progress to recover lost ground.

ESG & Safety

As momentum picks up, it is our collective responsibility to keep our colleagues and workplaces safe. Safety is a crucial consideration even within the ESG (Environment, Social & Governance) framework that is rapidly gaining relevance. Our Safety Management Systems are constantly under scrutiny, and although we are an International Standard ISO 45001 accredited Company, we need to constantly demonstrate our commitment to achieving Mission Zero Harm.



While our own health and safety and that of our employees, workmen and loved ones has been top priority, now with things improving, we need to re-focus, re-align and re-orient ourselves to push progress to recover lost ground.



Digital for Safety

Several of our digital solutions are helping to significantly improve our Safety performance. The Safety App, rolled out in different forms across all businesses and project sites, covers almost every aspect of the safety process and ensures that everything is recorded at the source on the field in real-time, with online verifications and approval for complete



Safety non-compliance detection

safety process compliance. Using the surveillance cameras already installed at sites and manufacturing facilities, the Computer Vision Technology, based on Artificial Intelligence, has dramatically improved our detection of unsafe acts and situations. RFIDs and remote sensors track personnel by continuously checking their body functions when involved in hazardous work and keep them safe by preventing them from wandering into ‘no-go’ or dangerous zones.

AR & VR are taking training to the next level

Experiential and immersive training through Augmented Reality and Virtual Reality modules have made safety training extremely impactful. Simple 3-minute modules on situations like working at heights, in confined spaces, emergency evacuation, firefighting and even gas-cutting delivered to workmen at sites in local languages with VR glasses are conveying a powerful safety message with a lasting impact as they experience the hazard virtually without the pain of having to go through it.

Safety innovation School – for customised training

Our Safety Innovation School is helping to build a positive safety culture and match our EHS management practices to global standards. With

well-developed infrastructure and equipped with the latest devices and demo products our supervisors and engineers are trained hands-on by experience trainers and subject matter experts from various professional bodies and OEMs on a host of subjects ranging from basic construction safety topic-specific training programmes



VR Training modules



Training is imparted by simulating real life situations

It is imperative that we never walk past an Unsafe Act or Situation that reflects an attitude of zero tolerance to anything unsafe. Every unsafe act or condition is a potential accident waiting to happen. We must prevent such accidents.



Briefing participants on soft fall

based on specific business requirements. Using the latest technologies like VR, trainees get a 360-degree and 'real' experience that enhances understanding and improves

knowledge retention. More and more of our people need to take advantage of this facility to improve our safety quotient.



As we move forward into a new orbit of recovery and growth, we need to show the same courage, flexibility, resilience and caring that we have shown in the past several months to succeed. Always, keeping safety at the centre of things.



Good housekeeping is a critical safety consideration

The better the housekeeping at sites, the better is their EHS performance. It is heartening to see that businesses across the Company have put a premium on good housekeeping. Regular half-hour checks and weekly mass drives involving both employees and workmen to ensure proper stacking of material, prompt clearance of debris and so on are showing encouraging results. The introduction of QR codes to maintain a housekeeping score card, electronic housekeeping indicators, regular assessments and rewards & recognition are creating a positive culture for a cleaner and safer workplace. Safety is no accident and good housekeeping is one way to avoid incidents.



Good housekeeping

projects over 2020 and 2021 thus far and the whole host of other international and national awards of merit reflect our commitment towards Safety. This is a good habit to follow.

The formation of the EHS Council under the leadership of Subramanian Sarma - Wholetime Director & Senior Executive Vice President (Energy), has given our EHS effort new direction and verve, and we need to continue the good work.

Recognition for our Safety performance

The slew of international and national awards our businesses and projects have won is due recognition of our ever-improving EHS standards. Last year, eight of our B&F projects won the 'Sword of Honour' which is considered the pinnacle of EHS performance. The 64 RoSPA 'Golds' won by our various

Never ignore an unsafe act or situation

It is imperative that we never walk past an Unsafe Act or Situation that reflects an attitude of zero tolerance to anything unsafe. Every unsafe act or condition is a potential accident waiting to happen. We must prevent such accidents. We do have a healthy culture of near miss reporting which must be encouraged, even among our workmen.

As we move forward into a new orbit of recovery and growth, we need to show the same courage, flexibility, resilience and caring that we have shown in the past several months to succeed. Always, keeping safety at the centre of things.

Stay safe. It is imperative for our continued success. ■

Good housekeeping: an imperative for Safety

Several of our projects especially in urban areas are 'exposed' and in the public eye. A clean, well-organized construction site will speak volumes of the brand *and we are not talking here about the branding on the barricades*. It is often said that the first impression is the best and that first impressions last; visits and inspections can, most often, start on the right note if sites are neat and maintained. Cleanliness of a workplace reflects a certain pride of ownership and today with clients demanding a higher degree of safety, good housekeeping has emerged as an imperative for Safety.

Housekeeping is more than just cleanliness

Good housekeeping is about having a place for everything and nothing out of place. In our industry, it is considered as an effective accident/incident prevention programme that can significantly enhance a project's quality and efficiency. It involves keeping workplaces orderly & neat, removing hinderances, maintaining easy accesses, properly stacking material, being vigilant to fix things that are broken, ensuring that everyone at the workplace follows the same regimen, all to help control or even eliminate workplace hazards and incidents. It is an ongoing exercise and sites with impressive safety records are more often those that practice good housekeeping.

It is so easy at construction sites to either slip through an unguarded opening or trip over a loose cable, to be hit by a falling object or tool or lose one's footing on a wet or greasy surface, stumble over carelessly strewn material or inadvertently spark off a fire with some inflammable material





Good housekeeping is about having a place for everything and nothing out of place.



lying around. "Each of these instances are because something was amiss, not in its right place, because someone was being careless," points out Michael Sanderson, Head – EHS, Heavy Civil Infrastructure IC. "They occur because we do not pay attention to the small things and one learning in construction is that it is the small things that make the biggest difference, and in such cases, unfortunate."


Have a sound housekeeping plan


Construction sites and offices are beehives of activity with lots of people carrying out various tasks, some complementary, some totally unconnected but all in proximity with each other which is the perfect scenario for things to go awry. A well-formulated and clear housekeeping

programme can help site leadership to maintain order in this chaos and avoid hazards. "Maintain is the operative word," remarks P Nagarajan, EHS Head – B&F IC. "Housekeeping is never achieved, it has to be constantly maintained for which the housekeeping plan must be shared with all stakeholders to ensure that it is followed meticulously which" as he adds, "is dependent on cleaning up and organizing the workplace regularly rather than waiting for the end of the shift, end of day or week to set things right."


The plan should clearly lay out how people, vehicles and material move within a site, where material,

tools & equipment need to be stored, where areas are demarcated for waste disposal, and a lot more but perhaps the most important is to assign responsibilities and have accountability. "In housekeeping it is very easy for things to fall between stools," grins Michael at his pun, "but seriously it is vital that each team member knows and understands clearly what is expected off them that is even more relevant for workmen who are an important component of our workforce and if they espouse our housekeeping principles, we will be better placed to maintain safety."





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Stick to the plan

“We are all in it together” is a famous line from an ad jingle that holds true for good housekeeping. Everyone, right from senior personnel, supervisors down to the workmen must be involved to create and keep alive a positive culture for a cleaner and safer workplace. A routine cleaning schedule is a good idea; inspections and assessments by senior management and/or EHS managers imperative like the 30-minute housekeeping drives conducted at B&F sites at the end of every shift. Prominently displayed electronic housekeeping indicator boards record a site’s performance and Nagarajan mentions a QR code that is linked to a questionnaire basis which the team creates a housekeeping score. “We encourage everyone at site including clients, vendors, suppliers and workmen to give their feedback that becomes the basis for improvement,” adds Nagarajan. Getting workmen to raise their hand to flag off unsafe acts or conditions is a tall



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Head – EHS, Heavy Civil
Infrastructure IC

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ask but projects across the organization have been increasingly successful to tick this box.

Train to stick to the plan

Since housekeeping is a shared responsibility, all stakeholders need

to be properly oriented and trained for it. An enlightened workforce is one that recognizes an unsafe condition and action must follow recognition. This is where training comes in handy. Sometimes, action could be as simple as blowing the whistle to alert the EHS Manager about a threatening situation. Training also includes being properly attired for work with all the necessary PPE, an aspect that has gained such importance in these days of the pandemic where masking oneself, maintaining social distance and following safety hygiene protocols have become the tools for survival.

A top-driven plan has better chances to succeed

The attitude of the senior management is soon accepted as the norm at workplaces. “We do not consider housekeeping as an additional



Good housekeeping is safekeeping at work and everyone at site has a role to play of a good housekeeper. The advantages of which are huge; the disadvantages, however, could be catastrophic.



activity,” declares Neeraj Parmar, Project Manager – Chalet Commercial Phase 3 project, B&F, who drives it himself at site. “Good housekeeping is a habit, and our effort is to make sure that everyone at our site forms this good habit,” he smiles. The project follows 5S at their P&M workshop, offices, stores, and other areas by storing material properly that makes retrieval easy and keeping aisles clean and free.

With his scope including civil and structural steel works to construct a 26-storey office building with 10 parking levels involving a composite steel structure with structural steel columns encased in concrete, Neeraj and team need to handle 8,500 MT of structural steel, 110,000 sqm of metal deck and 35,000 cum of concrete, reinforcement, and formwork all from a single access. “The narrow access road within the site premises is our only lifeline to unload,

store, lift, concrete, stack so we always keep it neat and free.” A surprise audit conducted revealed an extremely neat and well-organized site that won praise from M V Satish, Whole Time Director & Senior Executive Vice President (Buildings).

The environment we work and live in is fragile. With good housekeeping and encouraging everyone to segregate and put their waste into the allocated bins for recycling will go a long way in our ESG efforts. At least 15 minutes to clear up should be a dictate for all sites.

Good housekeeping is safekeeping at work and everyone at site has a role to play of a good housekeeper. The advantages of which are huge; the disadvantages, however, could be catastrophic. Keep clean. Be organized. Stay safe. Housekeeping is the clearest sign that a project is safe because it cares. All it requires is the will to make it happen. Let us together make it happen! ■

Auditing EHS at sites through the Third Eye - a post pandemic development

Although the pandemic brought travel and cross-country movement to a grinding halt, construction activities at various sites continued with the associated risks and compliance obligations remaining unchanged. The challenge before site leadership was to quickly evolve methods to continue monitoring site progress. The concerted efforts to drive digitalization across the organization stood us in good stead as people at HQ, offices and sites readily adopted and adapted to the new normal of Virtual Auditing by conducting quality audits, internal control audits, financial audits and EHS audits. From mobile devices to drones, site sensors to surveillance

cameras, virtual reality and other wearables are all being used to audit EHS at sites through the Third Eye.

Resolving teething issues

A comprehensive process to verify compliance to the stipulated processes of the EHS Management System, an EHS audit needs to be carried out diligently and meticulously for it to be useful. Virtual audits, though not new for the global construction industry, were being adopted for the first time at L&T Construction and the onus on EHS managers was to comply with Occupation, Health & Safety ISO 45001,



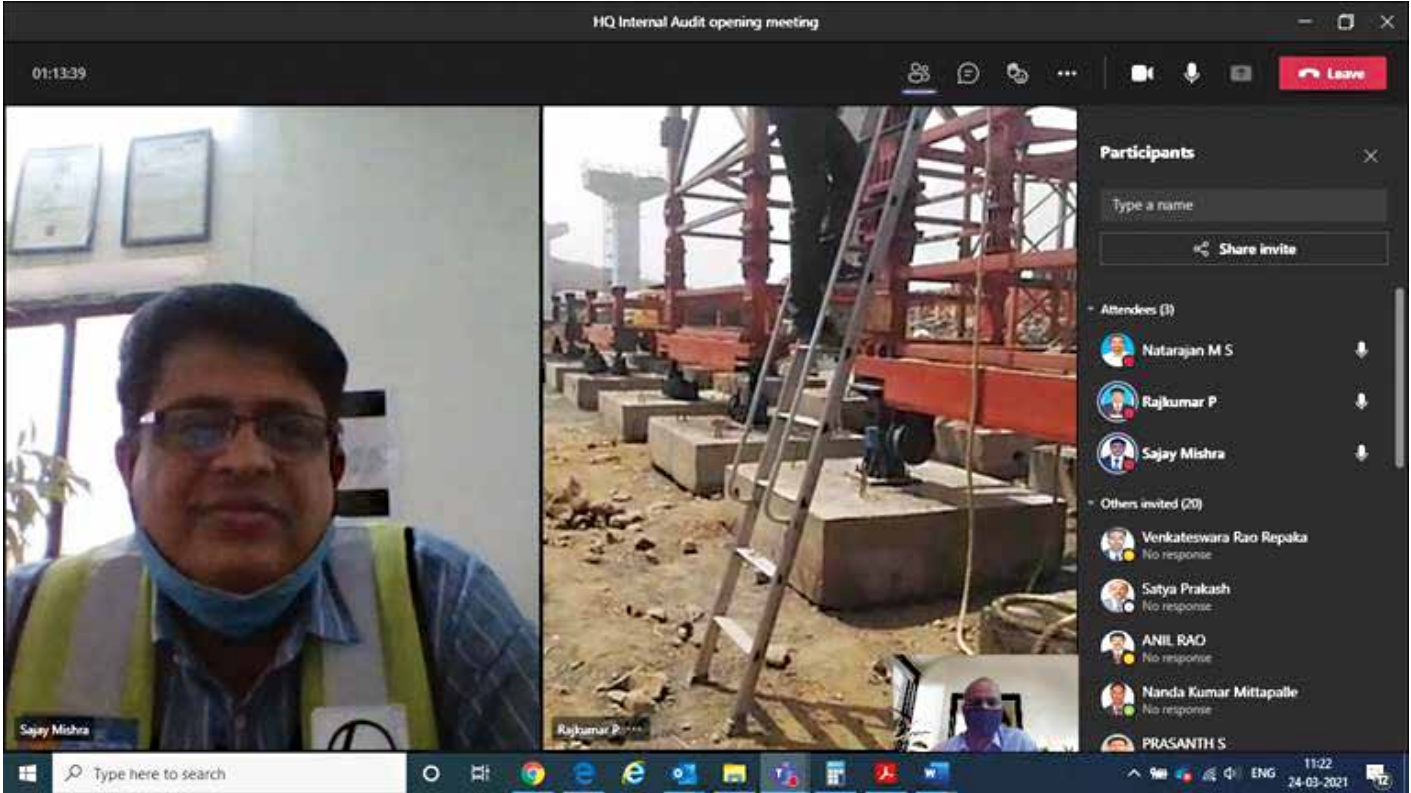
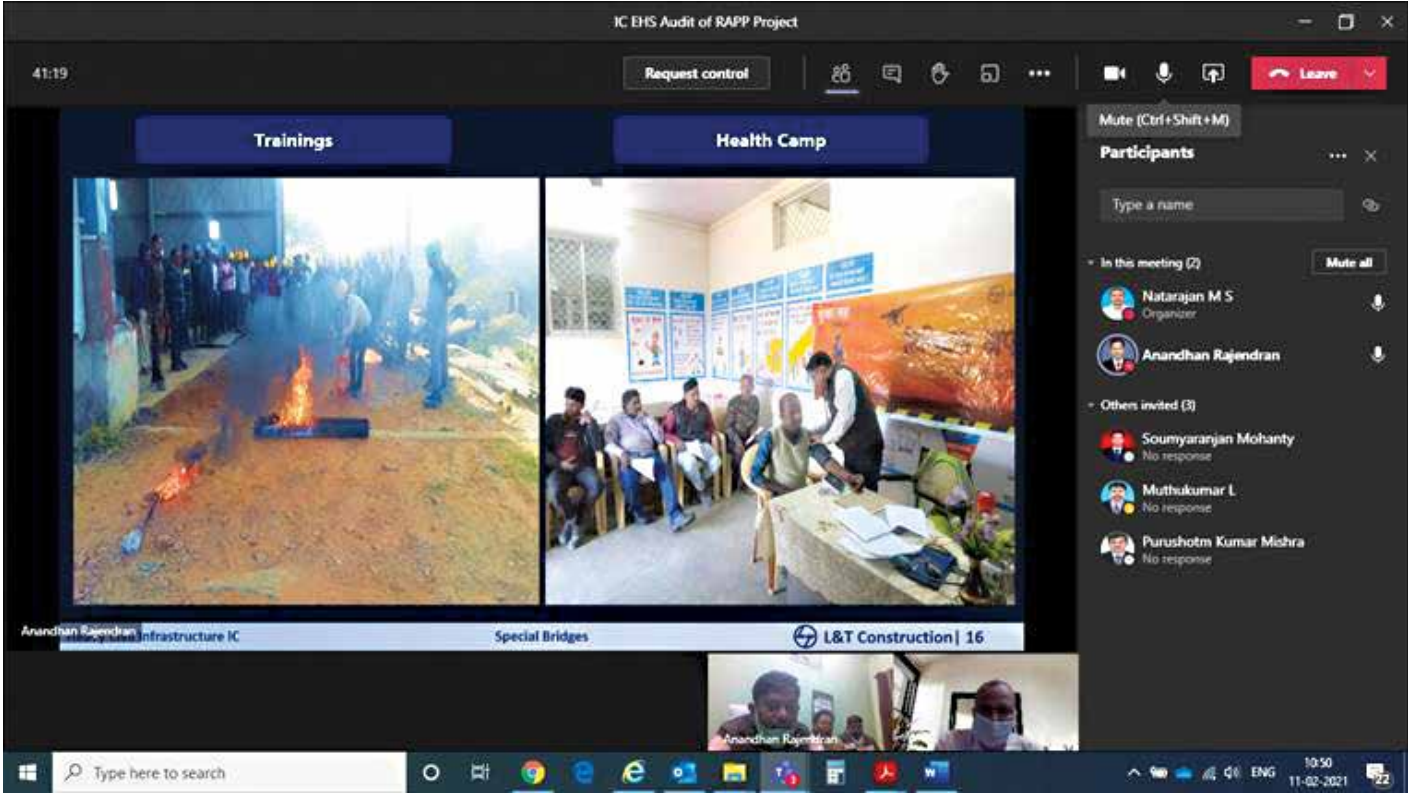
We have drawn from the essence of the ISO 19011 and a few other standards to arrive at our guidelines.

P Nagarajan
Head - EHS, B&F IC



and Environmental ISO 14001 standard requirements.

However, sites did not initially take to Virtual Auditing like fish to water. There have been teething problems like issues with technology (read network), lack



of involvement, building trust for the audit and finding champions to drive the process.

International Standard (ISO) 19011:2018 lays down the guidelines for auditing management systems based on which several businesses of L&T Construction like B&F, Heavy Civil Infrastructure & PT&D have released guidelines for effective virtual auditing. "We have drawn from the essence of the ISO 19011 and a few other standards to arrive at our guidelines," explains P Nagarajan, Head - EHS, B&F IC.

Heavy Civil, for their part, have formed an HQ Audit team to evolve a programme and structure to follow. "We first identified fully certified ISO 45001 auditors at each of our projects and having them to support audit verification has been a huge advantage



Typically, an audit team comprising managers and SMEs (Subject Matter Experts) to audit specific, critical elements would require at least three days to travel from Chennai HQ to a project located in the eastern part of India. All this is saved - time, effort, cost and there is also a huge 'green' gain with less travel.



for us," remarks V Marudhukavi, Lead EHS Auditor, who is a part of the audit team.

Nagarajan adds that even certification audits are being conducted remotely that are acceptable to both the certification

bodies and, to some extent, the statutory bodies as well. In fact, recertification audits for half of B&F's projects have been successfully completed remotely with recertifications issued with revised certificates that are valid till February 10, 2024.

Requirements for a successful virtual audit

Across L&T Construction, virtual audits are being conducted on the MS Teams platform for which a detailed checklist has been drawn up to ascertain activity and its documentation. Some reservations were aired about including QMS (Quality Management System) within the ambit of a virtual audit which were instantly quelled. "We assured our EHS managers that with the best utilization of the available technologies,

we could effectively focus on Class-1 risks and the control measures taken at sites,” points out G Divakar, Head – EHS Compliance, Heavy Civil. With MS Teams, managers can submit pictures to the auditors, live stream activities like conducting site tours, with adequate connectivity.

Virtual auditing – several pros

Virtual audits have their merits. A significant positive is that a cross section of people from across locations can participate. Usually, a lot of time is spent on planning physical audits in terms of travel and other logistics. “Typically, an audit team comprising managers and SMEs (Subject Matter Experts) to audit specific, critical elements would require at least three days to travel from Chennai HQ to a project located in the eastern part of India,” observes M Nachiappan, Deputy General Manager EHS - B&F IC. “All this is saved – time, effort, cost and there is



T.Prabhakar
Head EHS - PT&D IC
(Domestic)

Overall, we have conducted 155 internal audits across domestic projects/factories and 8 external audits including one at Head Office.



also a huge ‘green’ gain with less travel.” All the effort to gather key people to open and close meetings is avoided, and since most of the documents are prior uploaded in the portal, tampering of data is largely reduced.

“By using the virtual platform, we have completed more than 200 audits and process reviews in a short span of three months.”

P Nagarajan
Head – EHS, B&F IC

“By using the virtual platform, we have completed more than 200 audits and process reviews in a short span of three months,” adds Nagarajan, cracking a satisfied smile.

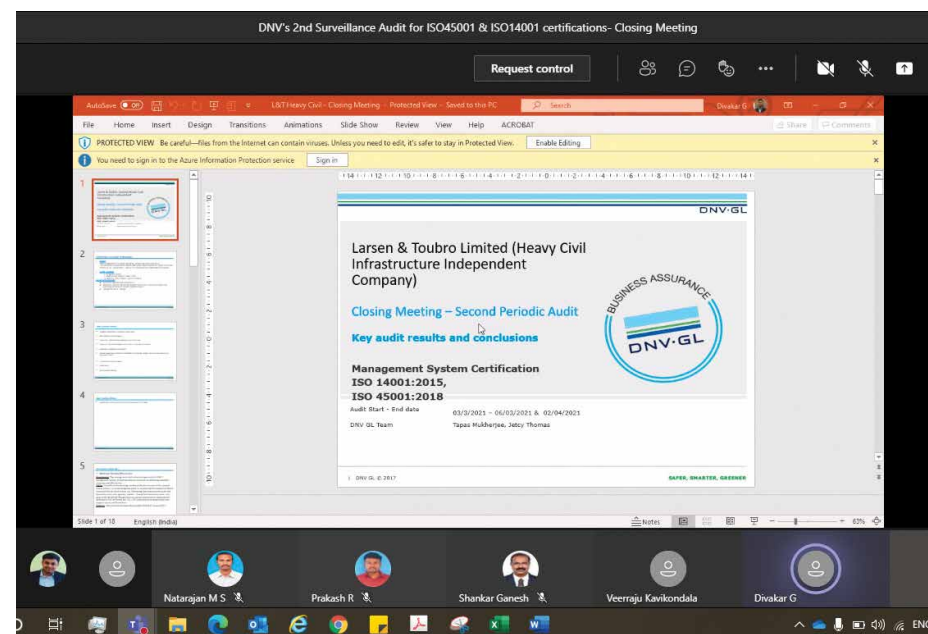
At PT&D IC, several external audits have been conducted virtually. In December 2020, Bureau Veritas conducted a virtual external audit through MS teams for projects/factories/head office and successfully completed the surveillance audit for ISO certification. “Overall, we

have conducted 155 internal audits across domestic projects/factories and 8 external audits including one at Head Office,” informs T Prabhakar, Head – EHS (Domestic), PT&D. “Some of the projects we have virtually audited are the 765kV Bhuj-Lakadia TL, 220kV D/C Kushma-New Butwal TL, IPDS-Jammu, RMU-North Chennai and the Mumbai Metro Line.”

All EHS managers confirm that the quality and efficiency of audits have improved as audit teams with the required levels of competence are conducting these and by being virtual, it is possible to add more qualified auditors. More sites are accessible, more hitherto ‘hidden’ areas at remote sites have been brought within the ambit of audits that have increased both insight and control and, more importantly, helped maintain business continuity.

A few cons

The nature and speed of internet connectivity are major determinants



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for the success or failure of audits as the extent an auditor can verify site conditions is largely dependent on the technology being used. Several remote sites without the required bandwidth are still difficult to audit. At times, visuals are distorted, sometimes only audio is possible, or certain critical areas of the project are not covered by cameras. Staging an area or deliberately avoiding certain sections are possible but those can happen even with physical audits. “Some of these challenges are being overcome by agreeing in advance to the details and areas to be audited,” remarks M S Natarajan, Senior Manager, EHS – Heavy Civil. If the goal is continuous improvement, then everyone should work to make the process as efficient as possible.

Tools for virtual auditing

Mobile devices: Interestingly, mobile phones are becoming a boon for EHS

Managers. The now ubiquitous Safety App is entirely operated as a mobile interface. In addition, mobile apps keep EHS personnel updated about project details, work in progress, safety hazards, incident reports, investigation updates, potentially hazardous activities, the works. Both engineers and workmen now have a centralized repository of information to access readily and quickly that speeds up the entire process.

Drones have become a standard construction site practice whether to conduct economical, quick & accurate surveys, monitor progress like at several of PT&D’s transmission line projects, monitor & inspect selects areas of a site that are difficult to easily access or even keep tabs on activities that are potentially dangerous.

Smart glass is an advanced technology exclusively meant for

remote monitoring and virtual audits with several advantages over normal video calls. The person with a smart glass has the same view as another viewing through a laptop/system far away, thereby eliminating the slip/trip hazard that we encounter when making video calls on the mobile. Smart Glass is replete with features like chat, send picture, take photos, annotate images, add comments, etc., during the live recording, and even review presentations. More users can be connected for the audit but there can be a restriction on the number of people who can speak. All the recordings, snaps, photos are available on cloud, instantly retrievable and most handy for auditors when writing their audit reports.

In the final analysis while virtual audits have been a huge source of learning, it is still WIP but the results are extremely encouraging. The lessons learnt during the tough days of the pandemic should be leveraged to a greater extent during the good days. Virtual auditing has come to stay. The task for EHS leadership and managers is to make it more efficient, more widespread and part of business as usual. ■



If the goal is continuous improvement, then everyone should work to make the process as efficient as possible.



More than EHS, training is a business imperative

It is often said that a system is only as strong as its weakest link. In a construction set-up, an untrained employee or workman can be that weakest link that undermines all the good that others do. With projects increasingly becoming bigger, more complex with more stringent timelines, a small bit of inefficiency in the system can rapidly snowball into a huge problem leading to losses that organizations, like ours, can ill-afford. Several site leaders have paid the penalty for ignoring the merits of training, reducing time for it, presuming that training is but common sense and focusing instead on more hours of work to meet their exacting deadlines.

Training has assumed even more relevance in the present situation post the pandemic-induced lockdowns with the influx of new, raw labour. As site personnel continue to push for progress, the onus on EHS leadership and managers has increased dramatically



VR-based training in progress



K P Ravinath
Head - EHS,
L&T GeoStructure

Training improves competencies. More importantly, it changes people's way of thinking and attitudes that go a long way to create a positive and safe work culture. From the larger perspective of the organization, it improves performance, drives productivity and prepares people to shoulder larger responsibilities to ultimately become leaders.



to ensure that the labour force is adequately trained and skilled to keep the ball rolling, safely. Therefore, it is not without reason that training figures high up in an EHS Manager's priority list for it impacts various other aspects of business apart from safety: retention, recruitment, quality of manpower and profitability.

Training helps to create a more enlightened workforce

Training, according to K P Ravinath (KPRn), Head - EHS, L&T GeoStructure, is an opportunity for employees

and workmen to enhance their skills, capability, and knowledge. "Training improves competencies. More importantly, it changes people's way of thinking and attitudes that go a long way to create a positive and safe work culture," he elaborates. "Of course, training decreases the chances for accidents and from the larger perspective of the organization, it improves performance, drives productivity and prepares people to shoulder larger responsibilities to ultimately become leaders."

An enlightened workforce is one that is open and receptive to adopting new methods, techniques and embracing

new technologies. "Technology is the only way we can meet our deadlines and maintain our execution efficiencies," points out Michael Sanderson, Head - EHS, Heavy Civil Infrastructure IC. "There is no way we could have driven digitalization to



Vireshkumar
Ramesh Navale
Senior Manager EHS, TI IC

An untrained workforce forces us to hire more skilled labour at a higher cost that results in cost overruns.



the extent we have at our MTHL site if we did not have a workforce that was willing to first appreciate the benefits of change and then espouse it." The stunning fact that 25 VR modules for training have been deployed at over 475 sites across L&T Construction, in 54,000+ training sessions to train nearly 5 lakh workmen is illustrative how seriously training is being viewed in our scheme of things.

A trained workforce costs the organization less

Lack of training can easily escalate project costs due to mistakes in construction and more rework resulting in thinning profits. In most cases, this can be attributed to the weakest link in the chain that we referred to earlier, but the more difficult task is to identify that weak link and often, a lot is done before the problems start to surface. "We are then forced to stop work, identify the source of the problem, rectify and then restart losing valuable time and

increasing costs in the process," KPRn shakes his head.

"An untrained workforce forces us to hire more skilled labour at a higher cost that results in cost overruns," laments Vireshkumar Ramesh Navale, Senior Manager EHS, TI IC, for whom efficient labour is so critical to keep his various challenging road jobs going. Viresh has driven VR based training at his various sites and the Mumbai-Nagpur Expressway project (Package 3) has thus far clocked the highest number of workmen trained of nearly 3,500 in 9 modules over some 400 training sessions. "The results are extremely encouraging," he says with a thumbs up, "as the number of incidents at site have reduced to almost nothing."

Training is a continuous process

A vital component of onboarding is training but the reality is that no one is completely trained. As new tasks and execution challenges arise, there is the



Screenshot of a 'live' AR training session



On-site training - Tools & tackles

need to re-train and re-skill. "At L&T GeoStructure, we believe that training plays a pivotal role to align our business strategies and that constant learning is imperative to upgrade competencies and enhance potential to achieve our strategic objectives," observes KPRn. "Our senior leadership emphasises that the agility to learn and adopt to the changing business scenario is the ultimate competitive advantage for this organization."

Training needs are identified, and a training calendar drawn up based on activities and levels of awareness required. KPRn prepares a monthly training matrix that is communicated to the department in-charges to facilitate on-site training, involving the site engineers and workmen. "We conduct different types of training to create awareness, enhance technical & management skills and bring about behavioural change," informs KPRn.

If EHS is a business operation priority and Mission Zero Harm non-negotiable, then training is an imperative.



Michael Sanderson
Head - EHS, HCLIC

Reducing risks is all about being prepared and training prepares our workforce to be prepared for different eventualities that results in lesser incidents, safer work conditions and thereby greater safety. This is critical especially for workmen involved in risky or hazardous activities.



Awareness training on topics like traffic management, fire safety, chemical safety, material handling and the like are conducted at sites. The GeoStructure team pays more attention to training in aspects like piling safety, rigging practices, electrical safety and as KPRn adds, "it is equally important for our employees to understand our EHS management system and be trained on an integrated management system comprising ISO 45001:2018 and ISO 14001:2015."

Training is a good risk management tool

If EHS is a business operation priority and Mission Zero Harm non-negotiable, then training is an imperative. In these days of the pandemic, virtual EHS auditing has started to drive EHS performance and managing risks begins and ends with good training. The industry regards falls, being struck by an object, electrocution and being crushed by equipment or machinery as the 'fatal four' and training modules are specially designed to address these hazards. "Reducing risks is all about

being prepared and training prepares our workforce to be prepared for different eventualities," opines Michael, "that results in lesser incidents, safer work conditions and thereby greater safety. This is critical especially for workmen involved in risky or hazardous activities."

Another huge advantage of good training is a site personnel's awareness to spot and recognize an Unsafe Act or Situation and take immediate and

appropriate corrective action. This dovetails into the system of creating a conducive atmosphere at site that encourages employees and workmen to raise flags and share their views or grievances without the fear of reprisal.

Training is also a good HR practice

The promise of good, in-house & onsite training is a juicy recruitment



N Senthil Murugan
Asst. Manager EHS,
L&T - Safety Innovation
School

We are committed to strengthen the safety mind set of our trainees by stressing the importance of safety management & creating a sense of leadership by creating a strong safety culture through a mix of physical demonstration, experiential training and a participative approach.



hook. At L&T Construction, the Safety School of Innovation is reflective of the organization's commitment to quality training. "We are committed to strengthen the safety mind set of our trainees by stressing the importance of safety management & creating a sense of leadership," informs Asst. Manager EHS, N Senthil Murugan, "by creating a strong safety culture through a mix of physical demonstration, experiential training and a participative approach." SIS empowers its trainees on the basics of safety in construction, safety culture, how to inspect & use rigging hardware, how to stay safe during the processes of gas cutting, welding & grinding, scaffolding and when working in confined spaces. They are also trained on the basics of CPR, electrical safety and fall prevention methods when working at heights.

In the final analysis, while training can imbibe a sense of vision and mission, what is more critical for an organization is when employees and workmen put training into action. The process is important; the result even more so. ■



Training for working at heights - RCD equipment

Keeping the OHS flag flying at PT&D Middle East

“At L&T PT&D (Middle East) we live and work by the principle that we are responsible for guaranteeing a work environment that is safe for everyone, both as a BU and as individual employees,” declares Antonios Papadopoulos, Head EHS & Quality, PT&D Middle East. “With the result, health and safety is at the core of everything we do.” This philosophy extends far beyond the boundaries of project sites, forming the basis for all

BU activities and setting the standard for dealings with all stakeholders - clients, consultants, suppliers, and all others.

Prevention being their primary focus, the EHS team has developed robust integrated management systems with policies, procedures, and guidelines that reflect the top management’s commitment to ensure health and safety, protect the environment and,

at the same time, uphold human values. The scope of systems, which are certified to ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018, includes power transmission, distribution, and renewables projects, covering operations in the three Emirates of Sharjah, Dubai, and Abu Dhabi, as well as in the Kingdom of Saudi Arabia, Qatar, Kuwait, and Bahrain.



Site Inspection



Prevention being their primary focus, the EHS team has developed robust integrated management systems with policies, procedures, and guidelines that reflect the top management’s commitment to ensure health and safety, protect the environment and, at the same time, uphold human values.



Multiple challenges. Many solutions.

Antonios’ mandate is not easy by any stretch of imagination as the team is operating in multiple countries, with different legislative and regulatory requirements, serving a diverse client base, with varying norms and expectations. “We have developed our systems by adopting the most stringent specifications available to standardize our modus operandi across the whole of the Middle East, whilst simultaneously complying with the regulatory authorities’ demands and our clients’ expectations.”



Antonios Papadopoulos
Head EHS & Quality,
PT&D Middle East

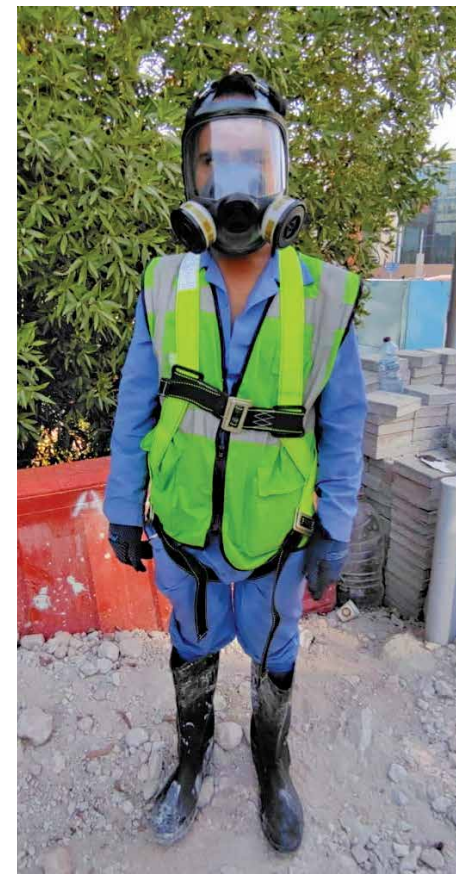
We have developed our systems by adopting the most stringent specifications available to standardize our modus operandi across the whole of the Middle East, whilst simultaneously complying with the regulatory authorities’ demands and our clients’ expectations.



Core to their EHS system is a risk management process that readily identifies all hazards and ensures suitable control measures. Task-specific risk assessments, reviewed and approved by clients and/or their consultants prior to the start of any work, are prepared for every single method statement. Specialized surveys or studies are conducted wherever required for site-specific inputs for risk assessment. In view of the dynamic nature of construction, the risk assessment process is repeated regularly throughout the duration of each activity, to counter hazards that occur due to changes in site and/or environmental conditions, as well as by new methods or materials that had not been initially accounted for.

Good systems get better when implemented well

Good systems in themselves, however, are only a means, not an end. “Effective implementation is key to achieve Mission Zero Harm which is impossible without strong management dedication,” points out Antonios. Commitment to safety starts from the BU Head, through the Country and Cluster Heads to Project Managers, permeating throughout the



CS Entrant

entire chain of command, down to the last workman. Safety Leadership Tours were launched in 2017, to increase the visibility of top management on the field and promote their commitment to OHS (Occupational Health & Safety) and environmental protection.

Effective implementation depends heavily on close collaboration between the execution and safety teams particularly since they could have, quite often, conflicting priorities. Safety issues are formally discussed at weekly meetings and informally, on an ad hoc basis, to ensure that progress and safety are maintained.

Issues of particular concern are, if need be, escalated to the Country or even BU level as illustrated by a recent example that Antonios elaborates. "It involved a Horizontal Directional Drilling (HDD) entry pit in Qatar, which was contaminated with hydrogen sulfide gas, at levels much higher than the short-term exposure limit (STEL) of 15 ppm." The issue was escalated to the BU level, where suitable control measures were decided and the safety team

When conducting incident investigations, we focus on identifying and addressing root causes to prevent recurrence, avoid assigning blame, where practicable, for we believe that laying all the blame on one or more individuals is counter-productive, runs the risk of alienating the workforce and undermining the safety culture.

Antonios Papadopoulos
Head EHS & Quality, PT&D Middle East

was given ample time to procure the required respiratory protection & rescue equipment, provide third-party training to employees, prepare a site-specific

method statement, do risk assessment, prepare an emergency response plan, construct a temporary structure to set up the tripod, purge and ventilate the pit.



Horizontal Directional Drilling (HDD) entry pit in Qatar



Edge Protection

Towards a positive safety culture

Maintaining and fostering a positive health and safety culture is integral to EHS performance. Employees, including subcontractor employees, are encouraged to identify and report unsafe acts and unsafe conditions, through the Safety Observation Card system, and urged to participate in developing and implementing innovative solutions to address identified issues to make their work healthier, safer, smarter, and more effective. Training is critical for this and apart from in-house training, those performing safety-critical work are given third-party certification

training. At a minimum, third-party training is provided to lifting supervisors and riggers, banksmen, scaffolders and scaffolding inspectors, confined space supervisors, attendants & entrants, authorized gas testers, first aiders, fire wardens, and the like.

Despite all these precautionary measures, incidents do occur that are viewed as opportunities for improvement. Antonios adds that considerable time and energy have been invested to convince employees to report all incidents, regardless of gravity, without fear of reprisal. "When conducting incident investigations, we focus on identifying and addressing root causes to prevent recurrence, avoid

assigning blame, where practicable, for we believe that laying all the blame on one or more individuals is counter-productive, runs the risk of alienating the workforce and undermining the safety culture."

Over the past few years, PT&D in the Middle East has made significant strides to create and maintain a positive safety culture and a safer workplace for employees and workmen. However, there is always room for improvement and the onus is on Antonios and his team is to remain vigilant and keep raising the safety bar to fulfil their moral obligation to the people who trustingly place their wellbeing and livelihood in their hands. ■

Building Sustainable Water Infrastructure

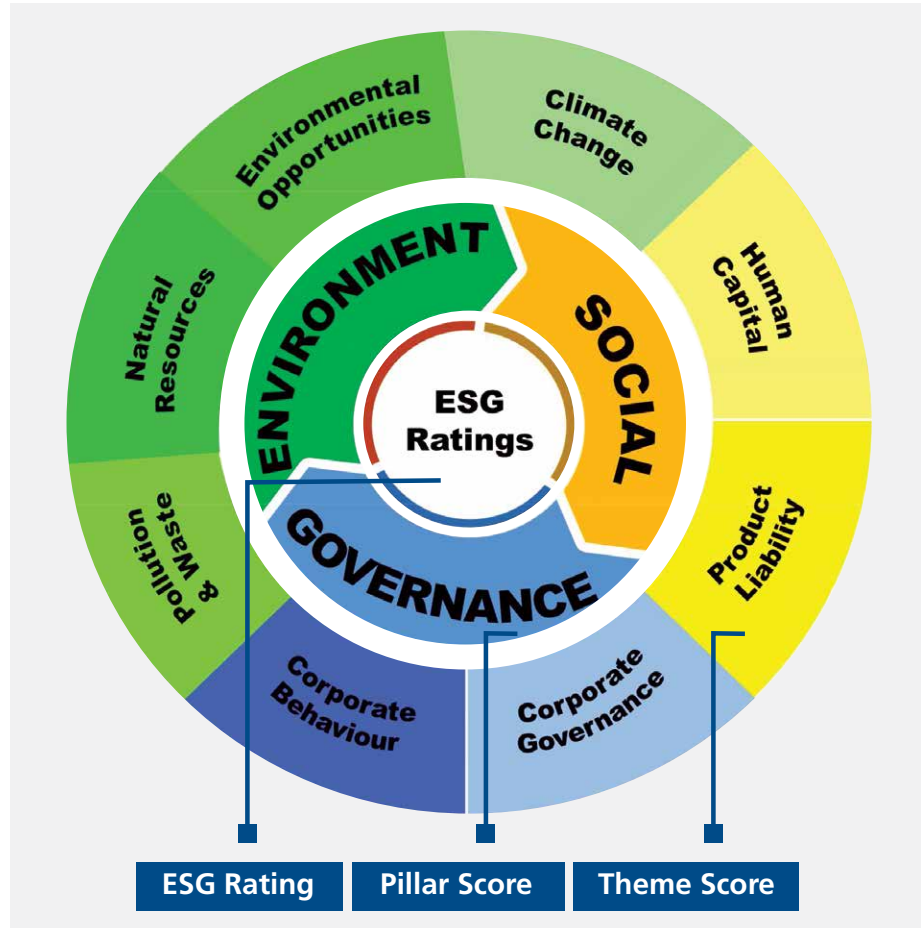
ESG (Environmental, Social Responsibility and Governance) is the new buzz term with investors and financial institutions keenly watching how companies integrate sustainability into their operations. A set of standards within the ESG framework determine a company's ESG score based on its commitment to implementing green initiatives across a project's life cycle involving economic, financial, social, environmental (including climate resilience), and institutional sustainability. These ESG criteria can be used to evaluate any environmental risks a company might face and how it manages them.

Creating sustainable infrastructure is an inclusive process across all our operations. Internalising sustainability and governance into decision making, we give clients the green edge by demonstrating our steadfast commitment to the environment and society at large. This cleantech approach is one of the key factors for the recent upgradation of L&T's ESG score.

Our Water & Effluent Treatment (WET) business has been a key contributor to this process by transforming the lives of millions by building sustainable water infrastructure. We share with you a few snippets from WET IC's green portfolio that has helped enhance the sustainability quotient across their projects.

Breathe easy

Even though WET IC has not been engaging large fleet of diesel operated heavy Plant & Machinery (P&M), the



Ambient air quality test



Power generator installed on fabricated stack to ensure soil protection

business still stringently monitors ambient air quality at all construction sites, for power generators and other P&M deployed. In line with the statutory

requirements of air management, WET IC has implemented an Ambient Air Monitoring System as a part of its EHS objective across project sites to assess air quality for pollutants that monitors the presence of sulphur dioxide (SO₂), carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), and total suspended particles (TSP) in the air.

Sons of the soil

While aligning to the emission norms during the operation of power generators, WET IC has gone a step ahead to take extra care for the soil on which the equipment is installed with specially fabricated stacks for different capacity power generators as per the standard norms across sites. Further, dip trays, customized



Stack monitoring

trolleys and extension of exhaust pipes ensure that the spillages are safely collected.



RO Plant installed at site



Making every drop count

Under normal conditions, discharge water finds very little use as it contains high level of total dissolved solids rendering it unsuitable for drinking. WET IC, however, effectively reuses

discharged water from the RO filters at its projects. A couple of cases in point are the 20 MLD CETP Dholera project that uses nearly 900 litres of discharge water for bathroom flushing and washing and the Koppal WSP, where more than 2500 litres is reused for various tasks. The reuse strategy is evolved on the basis of the amount

of water discharged for various construction activities.

“Our ‘Ulta Chaata’ initiative has become very popular as a simple method of catching rainwater,” informs K S Sudheesh Kumar, Head – EHS, WET IC. “It is set up on the rooftops of offices, workmen habitats, storerooms



K S Sudheesh Kumar
Head - EHS, WET IC

Our ‘Ulta Chaata’ initiative has become very popular as a simple method of catching rainwater. It is set up on the rooftops of offices, workmen habitats, storerooms to collect and store rainwater through an umbrella blown into an inverted conical shape to recharge ground water.



Rainwater harvesting pits



Dewatering



Storage water



Re-use of water for dust suppression

to collect and store rainwater through an umbrella blown into an inverted conical shape to recharge ground water.”

Another small but effective step implemented at sites is the reuse of dewatered water through temporary storage pits for dust suppression during construction activities.



The Miyawaki method creates a self-sustaining forest ten times faster than a conventional tree planning scheme. At our Bidkin and Erode projects, we have planted more than 60000 saplings using this method with 100% survivability.

K S Sudheesh Kumar
Head – EHS, WET IC



Miyawaki method used for tree plantation



Enhancing green cover

Overall, L&T planted 1.4 million + trees during 2020 with WET IC spearheading the initiative adopting some unique techniques. “The

Miyawaki method creates a self-sustaining forest ten times faster than a conventional tree planning scheme,” points out Sudheesh. “At our Bidkin and Erode projects, we have planted more than 60000

saplings using this method with 100% survivability. In fact, we are also acting on special requests from the client to either replant or replace aged trees after the construction activities.”



Ensuring waste minimisation

Certain wastages that can be reused effectively in line with the EHS and ISO standards are standardized at sites and as a part of this initiative, over 12009 MT of recyclable waste was

handed over to approved vendors as a part of a 'GO GREEN' campaign during the safety month celebrations. The success of this campaign has been a significant triumph in the IC's mission to minimise waste projects, and in the process, ensure good housekeeping and overall safety.

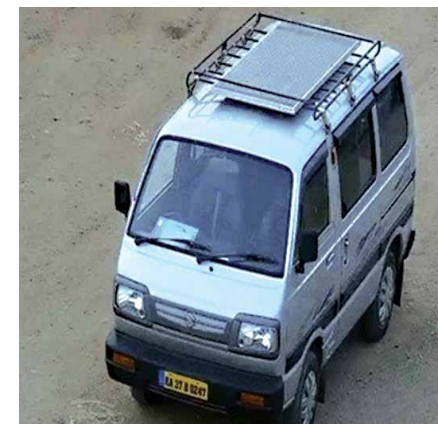


Achieving energy efficiency

Solar panels installed at workmen habitats at some WET projects are proving to be decisive both in terms of cost savings and achieving energy efficiency. With most of the projects based at remote locations, such initiatives have now been extended to power remote onsite training vans for workmen orientation. When it comes to conservation of conventional energy, project sites are migrating to energy efficiency appliances and LED lights.



Solar panels at workmen habitat



Solar panels on the training vans



Energy Efficient LED Lights



Go green campaign

On a green mission

For WET IC, ensuring water security and continuous supply to end-users have always been matters of topmost priority and through its green measures at project sites, it is redefining the process of building sustainable water infrastructure. ■



A MUCH-AWARDED EHS STALWART!

R Sudharsan

Senior Manager, EHS - Heavy Civil IC

“My most memorable moment was when we won the NSC Gold award for the third consecutive time, a ROSPA Gold and the management asked me to go to receive the award in London,” shares R Sudharsan, with a humility that belies his pride for having won a wide array of awards for his projects ranging from the National Safety Council, British Safety Council, ROSPA, Institution of Engineers and from one of his clients, Nuclear Power Corporation of India. “We won the NSC Gold award for three times in a row which is an Indian record,” he emphasises.



Handling the construction of mega structures like the four 174-m tall NDTC Towers and two reactor buildings involving complicated construction and huge erections, without a single incident was really a high point of my life.

R Sudharsan

Senior Manager, EHS - Heavy Civil IC



Sudharsan has grown as an EHS professional with L&T. Freshly posted at the DMRC projects in 2007, his first success was to help the projects get their ISO 14001 & OHSAS 18001 certifications. A couple of years later after moving to the Kakrapar Nuclear plant project, he was trying to understand and implement the Atomic Energy Regulatory Board standards. “Handling the construction of mega structures like the four 174-m tall NDTC Towers and two reactor buildings involving complicated construction and huge erections, without a single incident was really a high point of my life,” he shares enthusiastically. A major part of his responsibility was to train the 6,000 workmen at the site, some of them not even from the construction field, to meet the client’s requirements and espouse the vision of zero harm, a task that he has gladly continued after his transfer to Chennai HQ, including creating VR videos to address safety.



Expenses incurred for safety precautions are normally not considered during the tendering process which Sudharsan found odd. “I sensed an opportunity, collected all the available data, analysed it and discovered that it comes to quite an amount.” He shared his findings and shares excitedly that EHS costs are now being considered when tendering.

Sudharsan attributes his continued success with L&T to the support and guidance from his seniors and the co-operation from his colleagues. “At KAPP, I was part of a young and cooperative team, dynamic on implementation and innovative with their thoughts enjoying the freedom to think without constraints,” he smiles and adds with gratitude, “I have been lucky to have iconic bosses who have guided and groomed me.”

At home, Sudharsan’s life partner, S Dhivya, is a lecturer and an excellent artist. “She has made beautiful Tanjore paintings apart from being a successful homemaker.” His pride for his wife’s talent and abilities is obvious. They are blessed with two sons, R S Harin and R S Vishnudev. Sudharsan spends his free time either playing with his kids, listening to Ilayaraja’s music or following his other passion, of taking long drives.

“L&T has been my dream company right from my college days, an organization that builds nations. Whenever I see people traveling in air-conditioned metros or enjoying uninterrupted power supply at their homes, I know that we are responsible for that,” he signs off, proud of his L&T association.

CLOSE CALL

Working adjacent to a live railway line

Scenario

A mast trolley, stationed at the down track, was scheduled to be parked in the yard. The controller instructed the site engineer to park the trolley at the down loop-line and close the block permit, who conveyed it to the operator, who requested permission to park the trolley on the UP loop-line as there was possibility of theft of batteries and diesel in the down loop-line.

The request was conveyed back to the controller who instructed the site engineer to alert him when the mast trolley reached the yard as there was a movement of an inspection car on the UP track.

The operator then informed the site engineer that the mast trolley was parked on the UP-loop line. After a while, a message was relayed from the control room that the mast trolley was at the turnout point when the inspection car arrived there.

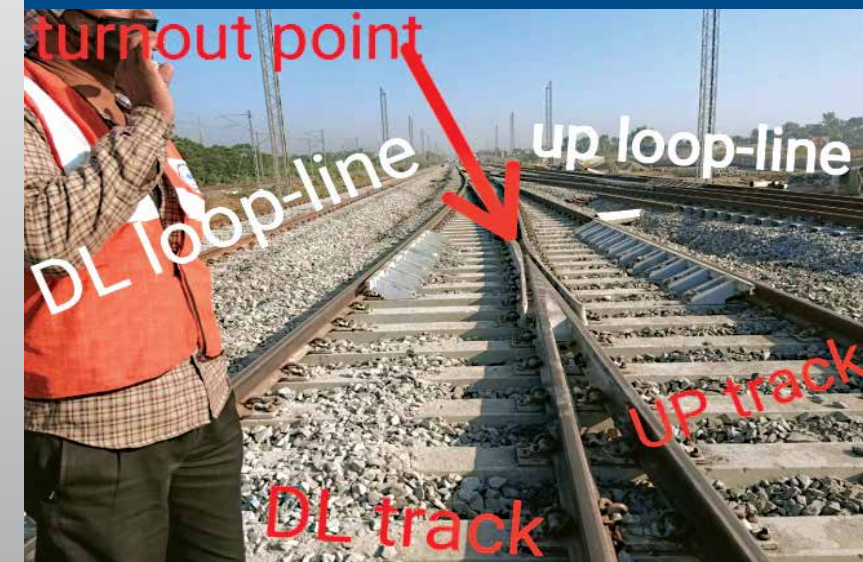
When shunting, the operator saw a loco coming towards him. He immediately moved the mast trolley away from the turn point and the DN track. When the inspection car approached the mast trolley, the inspection car operator suggested to take the mast trolley further away. Having ensured a secure clearance, the inspection car safely crossed over. No human injury and material damage occurred during this incident.

What was the cause?

1. Working without permit
2. Improper communication between the Controller, Site Engineer and Operator
3. Red banner flags not erected on both sides of the track during the shunting operation
4. Lack of awareness among operators

What precautions need to be taken to prevent a recurrence?

1. Mast trolley operator should take approval from the control room to proceed before moving on the DFCC Track
2. Proper communication should be maintained between the Controller, Site Engineer and Operator
3. The Operator should communicate directly with the Controller for permission to proceed
4. Regular awareness training on ‘CRO manual’ for Operators & Site Engineers
5. The Controller should avoid conditional blocks for the safe movement of RRV/RBV on the track
6. Red banner flags to be placed on both sides of the track during the shunting operation



PHEW!



T Prabhakar
Head - EHS (Domestic),
PT&D IC

VR training solutions create realistic scenarios in a 3D environment, making it easy for our workmen to visualize the hazards, their effects and correct safety practices at the worksite along with their benefits.



3D environment, making it easy for our workmen to visualize the hazards, their effects and correct safety practices at the worksite along with their benefits," observes T Prabhakar, Head - EHS (Domestic), PT&D IC, who has been another strong proponent of AR & VR training tools having rolled them across 200+ of his sites. "We have conducted nearly 19,000 sessions and trained about a lakh of our workmen," he shares, delighted with his achievement.

Being part of the situation and experiencing it virtually leaves a lasting impact on the participants. "Earlier, they were mere spectators and lost in a large crowd but now they are individually involved in an immersive environment that is easy for them to experience and internalize," adds Viresh.

Another EHS Head who has readily embraced VR & AR training modules and is reaping their benefits is K S Sudheesh Kumar of WET IC, who is presently leading on the implementation scale. "We have already introduced these modules including 20+ SoPs based in-house developed training videos dealing with critical activities, learnings and good practices across WET IC sites, conducted over 33,000+ sessions, trained 3,75,000+ workmen involving more than 6,46,700 man-hours. The improved EHS culture among staff & workmen and accolades received from



K S Sudheesh Kumar
Head - EHS, WET IC

At WET IC sites, we have conducted over 33,000+ sessions, trained 3,75,000+ workmen involving more than 6,46,700 man-hours.



stakeholders and interested parties are the testimony of effective utilisation of VR & AR tools."

Evidently, digital training solution has become apropos at this moment, just when sites were restarting operations after the pandemic disruptions. While site leadership pushes progress aggressively, EHS Managers had growing concerns not only because haste often makes waste, and in their case LTIs (Loss Time Injury) but, more so, they had to deal with fresh labour

with little orientation to construction activities and L&T's EHS Systems and processes. Sudheesh is thankful that the pace of training has accelerated. "Another huge advantage of VR & AR Modules," he adds, "is that with them we can impart effective training anywhere and anytime."

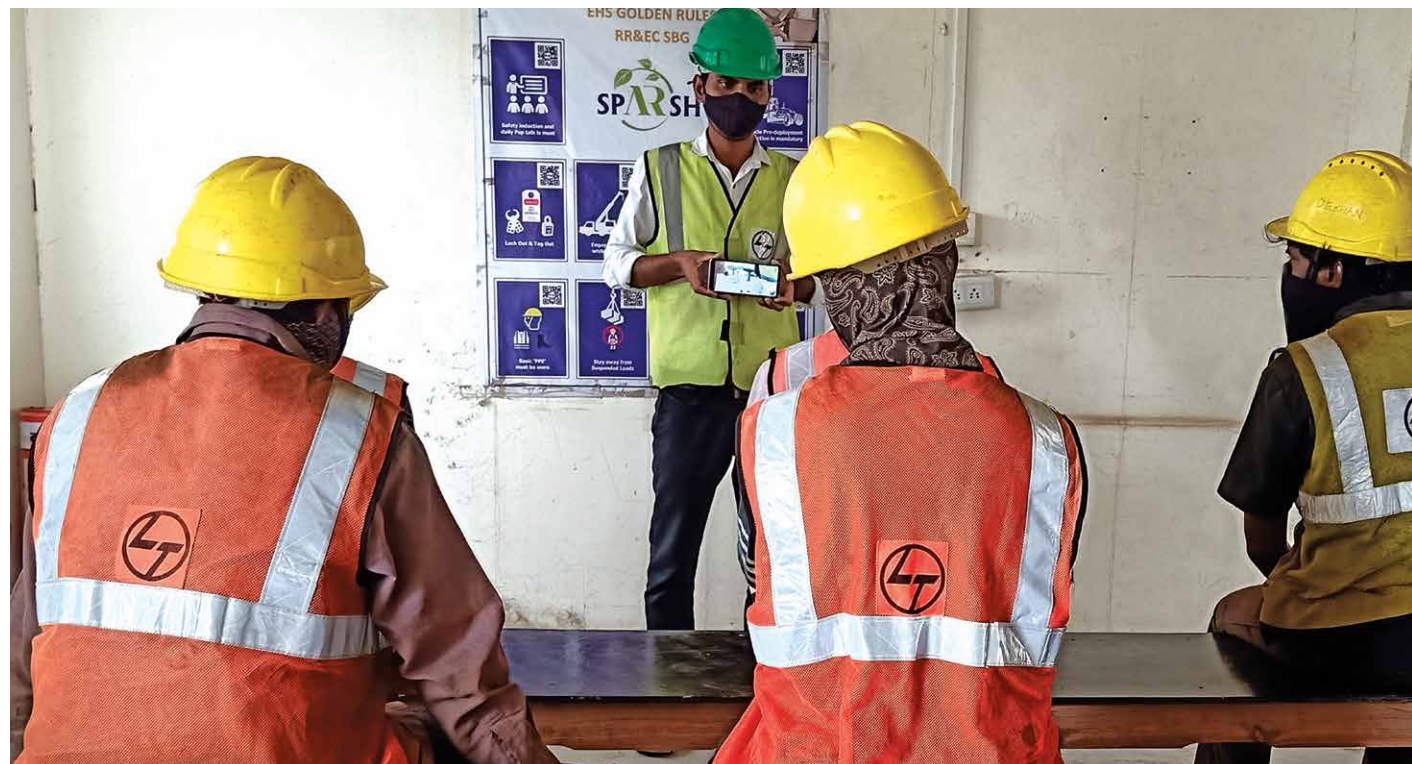
MNEP leading the way

A matter of pride for Viresh is that TI IC's Mumbai Nagpur Expressway project is leading the way in implementing VR & AR training and what's helping Viresh in his drive is the whole-hearted support from Project Director, Srinivas Rongali and Project EHS Head, Jai Shanker Prasad, who shares with great satisfaction, "We have been using these digital training tools extensively for our workmen since 2019 and have already conducted 450+ such virtual training programmes covering 4800+ individual module sessions." A notable achievement for Viresh and the project team is MNEP clocking almost 20 million safe manhours. "We are also a well awarded site," smiles Viresh. "We won TI IC's Safety Award for 2019 in the Large Projects category, we have won the coveted British Safety Council's International Safety Award in the Distinction category in 2020 and the most prestigious RoSPA UK Gold award in 2021."

"VR and AR based EHS training modules are definitely the future and since the proof of the pudding is already in the eating, our intent and effort is to drive them across all our businesses within L&T," sums up Satish Patil. "We see these as critical behaviour influencing tools because if we need to improve our safety quotient, we have to change mindsets." ■

Another cost-effective solution introduced within TI IC involving a high level of personalized learning experience for the EHS Golden Rules is **SPARSH** (Standard Precautions using AR for Safety & Health). "The idea behind SPARSH is to democratize and make everyone responsible for safety training and awareness in their work

area," Viresh explains. "It helps our people to be fully aware of the Golden Rules of Safety in an easily understandable and standardized format, anywhere, anytime." SPARSH logos and QR codes are standardized and omnipresent across TI IC project sites to increase awareness and compliance to safety practices, and thereby reduce incidents.



CLOSE CALL

Transit mixer hits a road barrier

Scenario

A 50 sq.mm 3.5 core, 40 m-long aluminium cable had been routed above floor level from the changeover switch located near TRI-Axial module to the PDB (for utility connection). On the day of the incident, a forklift was deployed to shift the consolidation gang equipment from one location to another crossing the electrical cable. The operator drove the forklift over the live armored cable with lifted load due to which the cable armor failed and the internal insulation was damaged, causing a short circuit.

What was the cause?

1. Cable trench or overhead routing was not done as per P&M guidelines and the sub-contractor was entrusted with the task of doing a proper routing of the permanent electrical connection
2. SDB/MDB connection was not provided between DG & PDB to avoid overloading of the electrical cable

What precautions need to be taken to prevent a recurrence?

1. Cable must be routed through cable trench or laid overhead with enough clearance for passing vehicles
2. Routing of cable should be through SDB/MDB to avoid over loading of the cable



PHEW!



Helmet congratulates the following sites for achieving million and more LTI free safe man-hours

BUILDINGS & FACTORIES IC

36 Wipro IT SEZ Project, Bengaluru
Million Safe Man Hours
December 2016 to June 2021

29 Crescent Bay Project, Mumbai
Million Safe Man Hours
January 2016 to June 2021

22 Rustomjee Crown Project, Mumbai
Million Safe Man Hours
April 2010 to June 2021

21 BIAL T2 Airport Project, Bengaluru
Million Safe Man Hours
August 2019 to June 2021

21 Cricket Stadium Project, Motera
Million Safe Man Hours
January 2017 to June 2021

21 One ICC and Two ICC Bombay Realty
Million Safe Man Hours
November 2017 to June 2021

17 Oberoi Sky City Project, Borivali
Million Safe Man Hours
June 2016 to June 2021

17 Prestige Song of the South Project, Bengaluru
Million Safe Man Hours
April 2016 to June 2021

16 TATA Housing Project, Kolkata
Million Safe Man Hours
September 2014 to June 2021

16 IGH Dwaraka Project, Delhi
Million Safe Man Hours
September 2014 to June 2021

13 CAPFIMS Project Delhi
Million Safe Man Hours
July 2019 to June 2021

13 Grasim Vilayat Expansion Project
Million Safe Man Hours
December 2018 to June 2021

Safety

Roll of Honour

Oberoi Eternia Mulund Project, Mumbai

12 Million Safe Man Hours
January 2017 to June 2021

DIAL Ph.3A Airport Expansion Project

11 Million Safe Man Hours
April 2019 to June 2021

Ramco Project, Kolimigundla

11 Million Safe Man Hours
June 2019 to June 2021

Piramal Aranya Project, Mumbai

11 Million Safe Man Hours
September 2016 to June 2021

IIT Ph.2 Project, Hyderabad

10 Million Safe Man Hours
April 2019 to June 2021

Chennai Airport Ph.2 Project

10 Million Safe Man Hours
September 2018 to June 2021

RREC SBG

Delhi Agra Road Project

21 Million Safe Man Hours
July 2016 to June 2021

Hospet Chitradurga Road Project

20 Million Safe Man Hours
May 2017 to June 2021

Delhi Airport II (TI IC)

19 Million Safe Man Hours
April 2019 to June 2021

Mumbai Nagpur Expressway MNEP

19 Million Safe Man Hours
November 2018 to June 2021

BIAL Runway

11 Million Safe Man Hours
December 2018 to June 2021

Mukkola - KL/TN Border Road Project

10 Million Safe Man Hours
June 2016 to June 2021

Aurangabad to Karodi

9 Million Safe Man Hours
October 2018 to June 2021

Bar Bilara Jodhpur Road Project

9 Million Safe Man Hours
April 2017 to June 2021

Bidkin Industrial Area (Package-I)

8 Million Safe Man Hours
July 2017 to June 2021

Villukuri Kanyakumari Road Project

8 Million Safe Man Hours
September 2016 to June 2021

Pragati Maidan

7 Million Safe Man Hours
December 2017 to June 2021

Chandigarh Kharar Elevated Corridor

6 Million Safe Man Hours
August 2016 to June 2021

Kachchidargah JV - LNT Scope

6 Million Safe Man Hours
January 2021 to June 2021

Ghoshpukur Salsalabari Road Project

6 Million Safe Man Hours
September 2019 to June 2021

Mumbai Vadodara Expressway

5 Million Safe Man Hours
September 2020 to June 2021

Safety

Roll of Honour

Dept Code - Central Office TI -RKJLRP (Jabalpur MP)

4 Million Safe Man Hours
January 2019 to June 2021

MP Expressway P22

4 Million Safe Man Hours
November 2020 to June 2021

Dholera SIR - Road and other Infra Works

3 Million Safe Man Hours
September 2020 to June 2021

Veer (Wadpale) to Bhogaon Khurd Section

3 Million Safe Man Hours
March 2020 to June 2021

Helwak-Patan-Karad Road

3 Million Safe Man Hours
May 2019 to June 2021

TN/KL Border Villukuri Road Project

2 Million Safe Man Hours
June 2019 to June 2021

High Speed Railway MAHSR Pkg C6

1 Million Safe Man Hours
January 2021 to June 2021

Safety

Roll of Honour

Baharagora Singhara Road Project

1 Million Safe Man Hours
April 2021 to June 2021

BHRP O&M

1 Million Safe Man Hours
October 2020 to June 2021

Dwarka Expressway PKG 03

1 Million Safe Man Hours
May 2021 to June 2021

Mej Indergarh Expressway P11

1 Million Safe Man Hours
September 2020 to June 2021

Yadgiri Warangal Road Project

1 Million Safe Man Hours
April 2021 to June 2021

Iswar Gupta Setu

1 Million Safe Man Hours
April 2021 to June 2021

Khulna Mongla Bridge Project

1 Million Safe Man Hours
March 2021 to June 2021

RAILWAY SBG

OPGC MGR Project

12 Million Safe Man Hours
July 2015 to June 2021

Riyadh Metro Project

9 Million Safe Man Hours
December 2015 to June 2021

Roha Verna Railway Electrification Project

7 Million Safe Man Hours
May 2017 to June 2021

Dhaka Metro Project

4 Million Safe Man Hours
July 2018 to June 2021

WDFC EMP-16

4 Million Safe Man Hours
May 2016 to June 2021

EDFC CP 204

3 Million Safe Man Hours
June 2016 to June 2021

MEGA Ballast less Track Work Project

2 Million Safe Man Hours
June 2017 to June 2021

Maithon Power

2 Million Safe Man Hours
December 2018 to June 2021

TFL JOBS MULTIPLE BUS

WDFC CTP-1

24 Million Safe Man Hours
August 2017 to June 2021

EDFC - CP-303

21 Million Safe Man Hours
March 2018 to June 2021

WDFC CTP-2

18 Million Safe Man Hours
December 2019 to June 2021

LRT Mauritius

5 Million Safe Man Hours
May 2019 to June 2021

WDFC CTP-14

5 Million Safe Man Hours
November 2020 to June 2021

WDFC CTP 3R

4 Million Safe Man Hours
February 2021 to June 2021

Safety

Roll of Honour

POWER TRANSMISSION & DISTRIBUTION IC

BSNL-MOD NFS OFC PKG- E-BSNL

13 Million Safe Man Hours
October 2014 to June 2021

BSNL-MOD NFS OFC PKG- D-BSNL

12 Million Safe Man Hours
January 2015 to June 2021

250 MW ACEPL Solar Project Rewa M.P

6 Million Safe Man Hours
January 2018 to June 2021

ODSSP Ph-3 Pkg-4

5 Million Safe Man Hours
January 2016 to June 2021

ODSSP Ph-2 Pkg-4

5 Million Safe Man Hours
July 2015 to June 2021

Phase 11 Addendum

5 Million Safe Man Hours
August 2014 to June 2021

Advance SCRIPS Bhubaneswar

4 Million Safe Man Hours
November 2015 to June 2021

Safety

Roll of Honour

- 4** **Replace Electrical Equipment at Southern Area GOSPS**
Million Safe Man Hours
April 2016 to June 2021
- 4** **765kV Ghatampur Harpur Package-1**
Million Safe Man Hours
September 2018 to June 2021
- 4** **765kV Ghatampur Harpur Package-2**
Million Safe Man Hours
December 2018 to June 2021
- 4** **132/220kV D/C JSEB (JUSNL) Dhanbad**
Million Safe Man Hours
January 2019 to June 2021
- 4** **765kV Ghatampur Agra TL**
Million Safe Man Hours
December 2018 to June 2021
- 4** **DDUGJY WESCO Pkg-4**
Million Safe Man Hours
September 2016 to June 2021

- 3** **Saubhagya-RE works Ghazipur Chandauli-PUVVNL**
Million Safe Man Hours
June 2018 to June 2021
- 3** **RE works at Basti Sant Kabir Nagar**
Million Safe Man Hours
May 2018 to June 2021
- 3** **UG Cabling Works in Visakhapatnam (Package-2)**
Million Safe Man Hours
October 2017 to June 2021
- 3** **ODSSP Ph-2 Pkg-3**
Million Safe Man Hours
June 2015 to June 2021
- 3** **400 kV SS at Al Dhafrah and Associated Works**
Million Safe Man Hours
April 2018 to June 2021
- 3** **765kV Agra Greater Noida TL**
Million Safe Man Hours
January 2019 to March 2021
- 3** **Saubhagya RE works Gorakhpur Deoria-PUVVNL**
Million Safe Man Hours
May 2018 to June 2021

- 3** **132kV / 66kV Tower Package TK02 SIKKIM TL**
Million Safe Man Hours
April 2017 to June 2021
- 3** **400/132kV RACECORS Substation Project**
Million Safe Man Hours
December 2018 to June 2021
- 3** **IPDS WESCO Pkg-4**
Million Safe Man Hours
October 2016 to June 2021
- 2** **Phase 13 Substation**
Million Safe Man Hours
September 2020 to June 2021
- 2** **ERSS TL 02**
Million Safe Man Hours
July 2020 to June 2021
- 2** **"Construction of three new 132/11kV Substations and its related 132kV Overhead Power lines in SEK L&T : 18053001 KOC : EF-1921"**
Million Safe Man Hours
November 2018 to June 2021

Safety

Roll of Honour

- 2** **Qassim-2 BSP # 9025 to Madinah East BSP # 21900, 380kV OHTL**
Million Safe Man Hours
December 2017 to June 2021
- 2** **WRSS-21A Bhuj Lakadia**
Million Safe Man Hours
December 2019 to June 2021
- 2** **WBSETCL, PKG.-'AM'**
Million Safe Man Hours
July 2019 to June 2021
- 2** **Saubhagya Lakhimpur Kheri Dist-MVVNL**
Million Safe Man Hours
April 2018 to June 2021
- 2** **400kV Kamudhi to Ottapidaram TL**
Million Safe Man Hours
December 2019 to April 2021
- 2** **RMU Pkg-02, Cuddalore TANGEDCO**
Million Safe Man Hours
June 2019 to June 2021
- 2** **Voltage Conversion Project - BI-10-93101**
Million Safe Man Hours
June 2019 to June 2021

Safety

Roll of Honour

- 2 Saubhagya-Firozabad and Mainpuri-DVVNL**
Million Safe Man Hours
May 2018 to June 2021
- 2 200 MW Atha Project**
Million Safe Man Hours
March 2019 to June 2021
- 2 400kV BKTL**
Million Safe Man Hours
April 2019 to June 2021
- 2 Saubhagya-Rai Bareilly District-MVVNL**
Million Safe Man Hours
June 2018 to June 2021
- 2 100 MW NLC Project**
Million Safe Man Hours
November 2018 to June 2021
- 2 Telangana T-FIBER - PKG-A-Capex**
Million Safe Man Hours
July 2019 to June 2021
- 1 220kV/132kV MPPTL lines (TR-208)**
Million Safe Man Hours
January 2019 to June 2021

- 1 Phase 13 Cable Route**
Million Safe Man Hours
February 2020 to June 2021
- 1 132/220kV WBSETCL Package-AJ**
Million Safe Man Hours
December 2018 to June 2021
- 1 765/400kV Meerut Simbhawali TL**
Million Safe Man Hours
April 2020 to June 2021
- 1 RMU - Cuddalore Pkg 3**
Million Safe Man Hours
April 2018 to June 2021
- 1 500/230kV Surat Thani 2 GIS Substation**
Million Safe Man Hours
November 2017 to June 2021
- 1 500/220kV S4 RAS GHAREB GIS S/S**
Million Safe Man Hours
December 2018 to June 2021
- 1 220kV KNBTL**
Million Safe Man Hours
April 2019 to June 2021

- 1 Lot 6 - KEMP Distribution Project**
Million Safe Man Hours
January 2019 to June 2021
- 1 Lot2, 3, 4 - UREAP Uganda**
Million Safe Man Hours
January 2020 to January 2021
- 1 SCRIPS Cuttack**
Million Safe Man Hours
August 2016 to June 2021
- 1 400kV TL - Lethlakane to Mawana**
Million Safe Man Hours
January 2019 to June 2021
- 1 Construction of Ibri Solar Grid Substation**
Million Safe Man Hours
December 2018 to May 2021
- 1 Spark Project 115/13.8kV Substations UG Cable and 115kV OHTL**
Million Safe Man Hours
February 2019 to June 2021
- 1 400kV/200kV-MorupuleB-Lethlakane-Orapa2**
Million Safe Man Hours
January 2019 to June 2021

Safety

Roll of Honour

- 1 400/220kV GIS Mylasandra**
Million Safe Man Hours
June 2018 to June 2021
- 1 220 / 110kV MCMV Kottayam TL - 01**
Million Safe Man Hours
December 2019 to May 2021
- 1 220 / 110kV MCMV Kochi TL**
Million Safe Man Hours
March 2020 to February 2021
- 1 400kV D/C Bhogat Kalawad TL**
Million Safe Man Hours
April 2017 to June 2021
- HEAVY CIVIL INFRASTRUCTURE IC**
- 146 Riyadh Metro JV Project**
Million Safe Man Hours
- 19 Vizag Vessel Project**
Million Safe Man Hours
- 19 KAPP 3&4 Mainplant Project**
Million Safe Man Hours

Safety

Roll of Honour

17 **KKNP 3&4 Mainplant Project**
Million Safe Man Hours

13 **Kalpakkam – WMP Project**
Million Safe Man Hours

11 **Mumbai Metro UGC07**
Million Safe Man Hours

9 **WDFC 15 A Bridge Project**
Million Safe Man Hours

8 **Barapullah Bridge Project, Delhi**
Million Safe Man Hours

8 **Varsha Inner Harbour – VIH Project**
Million Safe Man Hours

7 **Punatsangchhu HEP, Bhutan Project**
Million Safe Man Hours

7 **KAPP 3&4 NDCT Project**
Million Safe Man Hours

7 **KKNP HTS Project**
Million Safe Man Hours

6 **Kalpakkam – FRP Project**
Million Safe Man Hours

6 **New Dry Dock Project - Cochin**
Million Safe Man Hours

6 **Kachchi Dargah Bridge Project**
Million Safe Man Hours

6 **KAPP 3&4 IDCT Project**
Million Safe Man Hours

5 **Project Seabird Phase II Project**
Million Safe Man Hours

4 **RAPP Project**
Million Safe Man Hours

4 **Mumbai Metro UGC01**
Million Safe Man Hours

4 **Bangalore Metro RT 03 Project**
Million Safe Man Hours

4 **Mumbai Costal Road Package-4 Project**
Million Safe Man Hours

4 **ZF Shillong Project**
Million Safe Man Hours

4 **Ahemadabad Metro –GMRC UG 02 Project**
Million Safe Man Hours

4 **Mumbai Costal Road Pkg-01 Project**
Million Safe Man Hours

3 **MTHL Pkg1 Project**
Million Safe Man Hours

3 **Goa Bridge Project**
Million Safe Man Hours

3 **RRTS Lot 2 Project**
Million Safe Man Hours

3 **RVNL-Package 02 Project**
Million Safe Man Hours

3 **KAPP 3&4 CSP Project**
Million Safe Man Hours

3 **RRTS Lot 1 Project**
Million Safe Man Hours

Safety

Roll of Honour

2 **ZH1 Port Blair Project**
Million Safe Man Hours

2 **WDFC 15 C Project**
Million Safe Man Hours

2 **Bangalore Metro RT-02 Project**
Million Safe Man Hours

2 **Dabhol Breakwater Project**
Million Safe Man Hours

1 **Kalpakkam – FRFCF Project**
Million Safe Man Hours

WATER & EFFLUENT TREATMENT IC

11 **Laying of Sewers at Cuttack**
Million Safe Man Hours

9 **Bhatpara Sewer Network and Waste Water Treatment**
Million Safe Man Hours

9 **Operation Maintenance of Jawai Cluster Project**
Million Safe Man Hours

Safety

Roll of Honour

- 8 **Integrated Sewerage Work - Pali (Design and Build)**
Million Safe Man Hours
- 7 **O&M for Sri Sathya Sai Water Supply Anantapur**
Million Safe Man Hours
- 7 **DHOLERA SIR**
Million Safe Man Hours
- 7 **ISP - Kalisindh Ph I MLIS**
Million Safe Man Hours
- 6 **Sewerage Scheme in Varanasi City**
Million Safe Man Hours
- 6 **Banswara District & Pratapgarh District WSS**
Million Safe Man Hours
- 6 **Nellore UGDS**
Million Safe Man Hours
- 6 **Kundalia Irrigation Project-Right Bank**
Million Safe Man Hours

- 5 **Udaipur Integrated Infrastructure Project**
Million Safe Man Hours
- 5 **Water Supply Scheme to Erode Corporation**
Million Safe Man Hours
- 5 **WS Scheme - Balasore/Bhadrak/Keonjhar/Puri/Bolangir**
Million Safe Man Hours
- 5 **Infrastructure Works in Bidkin**
Million Safe Man Hours
- 5 **Tanzania WSP**
Million Safe Man Hours
- 4 **Execution of Lift Canal System of UIIP Kalahandi**
Million Safe Man Hours
- 4 **Pune ESR and GSR**
Million Safe Man Hours
- 4 **Narmada Kshipra Multipurpose Project**
Million Safe Man Hours

- 4 **Athikadavu-Avinashi LIS**
Million Safe Man Hours
- 4 **MLIP Cluster XII**
Million Safe Man Hours
- 4 **Koppal WSP**
Million Safe Man Hours
- 4 **Provisional Sum for IASTW Qatar**
Million Safe Man Hours
- 4 **Rourkela WWS**
Million Safe Man Hours
- 4 **Barrackpore Sewerage Integration Work**
Million Safe Man Hours
- 4 **Ranchi Urban Water Supply Scheme**
Million Safe Man Hours
- 4 **9 Nos LIS in Cluster-VI in Cuttack Dist**
Million Safe Man Hours

Safety

Roll of Honour

- 4 **Cuttack Water Supply Project**
Million Safe Man Hours
- 3 **Chhaigaonmakhan LIS**
Million Safe Man Hours
- 3 **Kundalia Irrigation Project-Left Bank**
Million Safe Man Hours
- 3 **BDA NPKL Package 1**
Million Safe Man Hours
- 3 **LnT Passavant JV Dept Code**
Million Safe Man Hours
- 3 **Integrated WS and WW Sri Ganganagar Project (DB)**
Million Safe Man Hours
- 3 **Alirajpur LIS**
Million Safe Man Hours
- 3 **Satna MVRWSS**
Million Safe Man Hours

Safety

Roll of Honour

- 3 **Rehab Works at Colombo**
Million Safe Man Hours
- 3 **Vijayawada SWD**
Million Safe Man Hours
- 3 **Hogenakkal - PKG V - O&M**
Million Safe Man Hours
- 3 **Sikar Alwar Bhiwadi Cluster
Sewerage Project**
Million Safe Man Hours
- 3 **O&M for Adilabad Project**
Million Safe Man Hours
- 3 **HPCL Vizag - ETP**
Million Safe Man Hours
- 3 **Improvement of Water Supply to
Greater Berhampur**
Million Safe Man Hours
- 3 **MLIP Cluster IX**
Million Safe Man Hours

- 3 **Providing Sewerage Facility in
Mohan Garden**
Million Safe Man Hours
- 3 **Keonjhar Water Supply Project**
Million Safe Man Hours
- 3 **O&M for Khammam Project**
Million Safe Man Hours
- 3 **Kakrapar LIS**
Million Safe Man Hours
- 3 **Water Supply to Karimnagar and
other Municipalities**
Million Safe Man Hours
- 3 **Moradabad Sewerage Scheme**
Million Safe Man Hours
- 3 **12 Nos LIS in Cluster-XI in
Jajpur And Kendrapara**
Million Safe Man Hours
- 3 **RRWSFMP-Package 7 (Nagaur
CDS-04)-Degana**
Million Safe Man Hours

- 2 **Cuttack Sewer Scheme Phase-2
Construction**
Million Safe Man Hours
- 2 **Beur Sewerage Network-Patna**
Million Safe Man Hours
- 2 **O&M East and West Godavari**
Million Safe Man Hours
- 2 **RRWSFMP-Package 6 Nagaur
CDS-03-Deedwana**
Million Safe Man Hours
- 2 **13 Nos LIS in Cluster-VIII in
Anguldeogarh Sunderg**
Million Safe Man Hours
- 2 **RRWSFMP-Package 5 (Nagaur
CDS-02)-Makrana**
Million Safe Man Hours
- 2 **Surya WSS**
Million Safe Man Hours
- 2 **Mohanpura MVRWSS**
Million Safe Man Hours

Safety

Roll of Honour

- 2 **Boudh Water Supply
Project**
Million Safe Man Hours
- 2 **Faridabad Smart City**
Million Safe Man Hours
- 2 **Hogenakkal - Pkg III O&M**
Million Safe Man Hours
- 2 **Payli MVRWSS**
Million Safe Man Hours
- 2 **Jawai Cluster - IV WSS
(224 Villages)**
Million Safe Man Hours
- 2 **Keonjhar-III WSP**
Million Safe Man Hours
- 2 **Kirulapone-WWS**
Million Safe Man Hours
- 2 **Saidpur Sewerage Network**
Million Safe Man Hours

Safety

Roll of Honour

2 **O&M for Bhagirathi WTP, Delhi**
Million Safe Man Hours

2 **Coimbatore UGSS Phase-II**
Million Safe Man Hours

2 **KPCL-WSP**
Million Safe Man Hours

2 **Water Supply facilities to
Bommanahalli Zone**
Million Safe Man Hours

2 **ISP - PARWATI Phase I and II
MLIS**
Million Safe Man Hours

2 **Moga WSS**
Million Safe Man Hours

2 **UGD 110 Villages - RR Nagar
Dasarahalli Zone**
Million Safe Man Hours

2 **Indore-UWSS**
Million Safe Man Hours

2 **20 MLD CETP Dholera**
Million Safe Man Hours

2 **Allahabad Sewerage Network**
Million Safe Man Hours

2 **Mallanna Sagar Reservoir
LnT-Prasad-RK Infra JV**
Million Safe Man Hours

2 **Mukkombu Upper Anaicut**
Million Safe Man Hours

2 **VSP Reservoir**
Million Safe Man Hours

2 **Ranchi WSS Phase-1**
Million Safe Man Hours

2 **Mayurbhanj Water Supply
Project**
Million Safe Man Hours

2 **Tirunelveli UGSS - Phase II**
Million Safe Man Hours

2 **Construction of Sewers for
Bhubaneswar**
Million Safe Man Hours

2 **Chhatarpur WSS**
Million Safe Man Hours

1 **Kendrapda Water Supply
Project**
Million Safe Man Hours

1 **O&M - CWSS to Dindigul**
Million Safe Man Hours

1 **100 MLD Desal Plant - Gujarat**
Million Safe Man Hours

1 **BHIMA LIS**
Million Safe Man Hours

1 **Dungarpur WSP Package 01**
Million Safe Man Hours

1 **Tikamgarh WSP**
Million Safe Man Hours

Safety

Roll of Honour

1 **Damoh Multi VRWSS**
Million Safe Man Hours

1 **Seoni Multi Village WSS**
Million Safe Man Hours

1 **Nandawadagi LIS**
Million Safe Man Hours

1 **Hazaribagh UWSS**
Million Safe Man Hours

1 **Jharsuguda WSP**
Million Safe Man Hours

1 **Mejhia Distribution**
Million Safe Man Hours

1 **Kushalgarh WSP Package 02**
Million Safe Man Hours

1 **Bharatpur Gangapur Hindaun
Sewerage Project**
Million Safe Man Hours



- 1** Vellore Phase-III
Million Safe Man Hours
- 1** Buxwaha MVRWSS
Million Safe Man Hours
- 1** Ranchi Smart City
Million Safe Man Hours
- 1** Ad Dhakhliya Water
Transmission Project
Million Safe Man Hours
- 1** Nuapada Water Supply Project
Million Safe Man Hours

METALLURGICAL & MATERIAL HANDLING SBG

- 43** Hot Strip Mill, RSP, Rourkela
Million Safe Man Hours
- 15** Coke Oven and Coke Dry
Quenching Plant, JSW, Dolvi
Million Safe Man Hours

- 12** Coal Handling Plant. Khargone
Million Safe Man Hours
- 10** Slab Caster, Bokaro
Million Safe Man Hours
- 8** Mansourah Massarah Gold
Project, KSA
Million Safe Man Hours
- 6** New Fabrication Yard,
Kansbahal
Million Safe Man Hours
- 6** Civil and Structural Works, UAIL,
Rayagada
Million Safe Man Hours
- 5** Steel Melt Shop#2, JSW, Dolvi
Million Safe Man Hours
- 3** Coal Handling Plant and Ash
Handling Plant, Tanda
Million Safe Man Hours

- 3** Blast Furnace#2, JSW, Dolvi
Million Safe Man Hours
- 2** Etihad Rail Prject, UAE
Million Safe Man Hours
- 2** Coal Handling Plant, MCL,
Bhubaneshwari
Million Safe Man Hours

L&T GEOSTRUCTURE

- 3** JSW-EQ1 & EQ2
Million Safe Man Hours
January 2017 to June 2021
- 2** CMRL _ SKP
Million Safe Man Hours
June 2019 to June 2021
- 2** NTPGC - Nabinagar
Million Safe Man Hours
November 2017 to June 2021



- 2** BHEL - Ennore PK1
Million Safe Man Hours
January 2018 to June 2021
- 2** MTHL - Mumbai
Million Safe Man Hours
May 2018 to June 2021
- 1** BHEL - Ennore PK 2
Million Safe Man Hours
September 2018 to June 2021
- 1** CMRL – CMRL – CS
Million Safe Man Hours
March 2019 to June 2021



48 REASONS TO CELEBRATE EXCELLENCE IN SAFETY!



48 of our sites across businesses have won **RoSPA Gold Awards in 2021!**

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