

CASE STUDY

EMPOWERING SAFETY:

TEKNOBUILT'S INNOVATIVE SOLUTION
REDEFINES RISK DYNAMICS AT NTPC



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Overview

NTPC is a leading public sector undertaking in the power generation domain in India. Known for its **commitment to operational excellence** and **sustainable practices**, NTPC operates a diverse portfolio of power projects, including coal, gas, and renewable energy sources.

NTPC faced significant challenges in their safety processes. Recognizing the need for **proactiveness, compliance, and productivity**, they researched for a transformative solution. Turning to Teknobuilt proved to be the pivotal step towards addressing their safety concerns. NTPC embraced Teknobuilt's PACE HSE+ to revolutionize their safety processes.

PACE HSE+ not only **injected proactiveness into their safety protocols** but also **ensured seamless compliance** with industry standards. The implementation of PACE HSE+ marked a turning point for NTPC, bringing about a **positive shift in their safety culture**. Productivity in safety process execution **witnessed a remarkable improvement**, positioning NTPC as an industry leader committed to excellence. The success story of NTPC's collaboration with Teknobuilt underlines the transformative impact of digital solutions in enhancing safety, compliance, and overall operational efficiency.



Challenges



Need of Proactiveness

No precaution could be taken proactively to remove hazardous situations



Delayed Communication

No real-time data regarding the actual status of the work was available



Limited Visibility

Tracking observations and incidents in the plant was a challenge

NTPC is committed to enhancing its safety program to achieve Operational Safety Excellence in its plants. The team identified some gaps in the process that were hampering **proactively monitoring and preventing incidents before they** occurred. They encountered **system validation challenges** due to equipment isolation. Their expectations for **real-time dashboards** and **GIS mapping** weren't fully met. Tracking observations, near misses, and incidents in the plant presented additional challenges.

Limited data storage options led to reliance on multiple tools, motivating the desire to streamline processes into a unified solution. NTPC sought prompt assistance from the Teknobuilt expert team and deployed the PACE HSE+ platform in the Singrauli plant for a smooth resolution to their operational issues.

Solution

PACE HSE+ A Paradigm Change in Safety Management

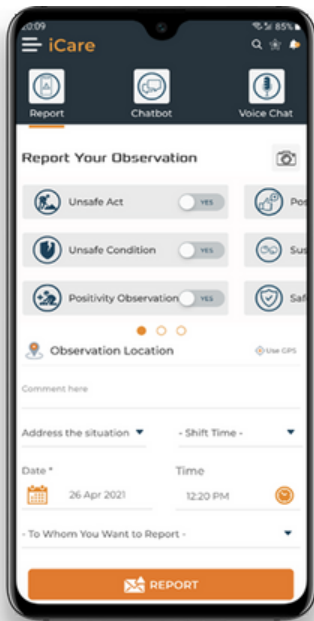
PACE HSE+ streamlined workflows and business processes, **enhancing productivity**. It served as a comprehensive solution for NTPC, **instilling pro-activeness into safety processes** and **ensuring 100% compliance**, thus improving productivity in the execution of safety processes. It also possessed the capability to log and **track incidents efficiently**, facilitating their management. Twelve modules were included to assist NTPC in operating safely, intelligently, and sustainably.





Solution

PACE HSE+: Solution Overview



iCare: PACE Mobile App driven Engagement

Enables to digitize the field engineers and frontline workers as part of daily working

- Digital field-level and job-level safety assessments
- Quick and easy incident reporting & automated capture of geo-location
- Offline functionality – synched with the real-time dashboards once online
- Digital permits to work
- Digital audit & compliance

iTALK, NLP based Next Stage Evolution

Connecting teams across language barriers through a fast, accurate and intuitive approach



iTalk is a versatile platform designed to streamline various aspects of project management and safety protocols. One of its key features is its **ability to facilitate incident reporting**, ensuring that safety concerns are promptly addressed and mitigated. Furthermore, iTalk empowers users to report defects and quality issues, fostering a culture of accountability and continuous improvement within the project environment.

In addition to its incident reporting capabilities, iTalk provides users with easy access to essential resources and materials. This includes permits, which are crucial for ensuring compliance with regulations and project requirements. Moreover, iTalk serves as a repository for informative materials such as procedures, standards, and guidelines. By centralizing these resources, iTalk helps to ensure that all team members have access to the information they need to carry out their tasks effectively and efficiently.

iTalk provides comprehensive checklists for users to ensure all project steps and requirements are met. It also offers interactive training modules to enhance team members' skills and knowledge, keeping them updated on relevant topics.

Results

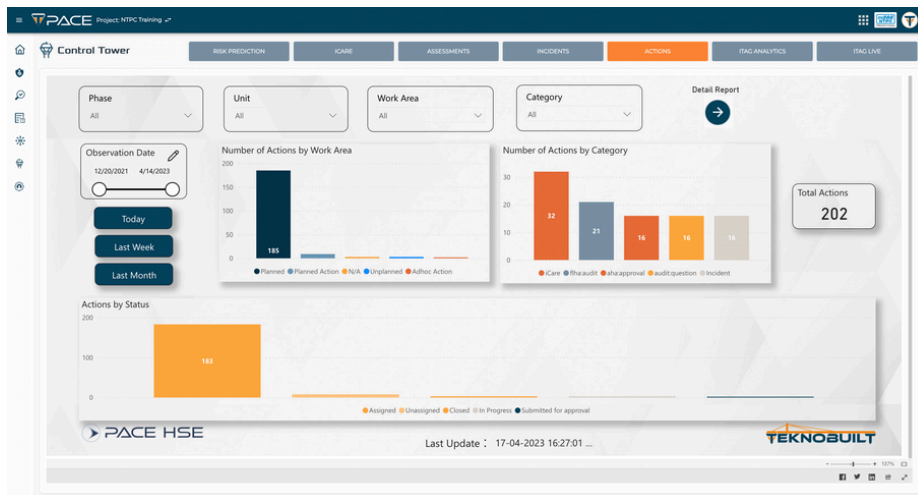
NTPC experienced significant benefits from Teknobuilt's PACE HSE solution, effectively addressing all their challenges.

Benefits were as below:

Enhance the Job Observation Reporting System



Teknobuilt have configured/delivered the PACE HSE system web/mobile app (ISO 45001 certified) to NTPC for paperless, time saving, and reduce operation cost, whether related to permit or non permit activities



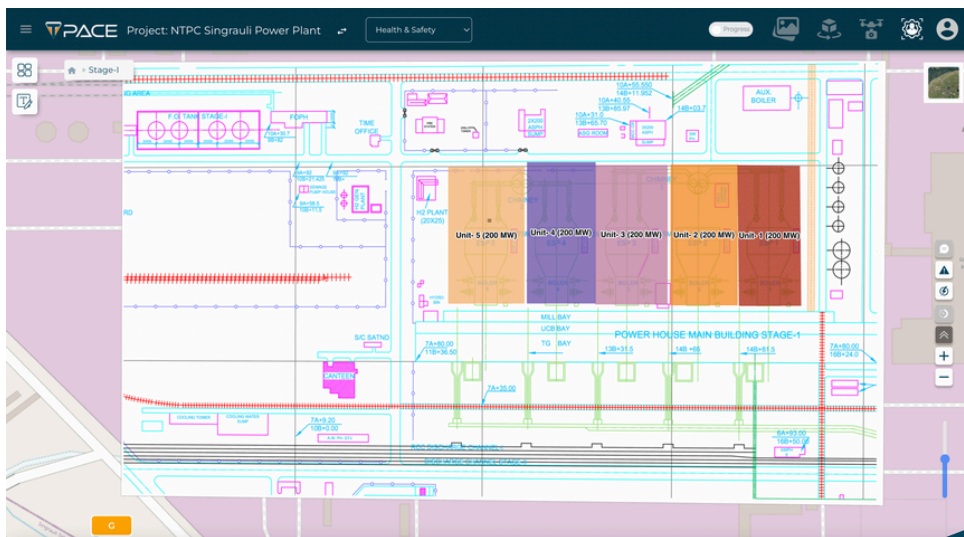
Results

Integrated Automated Analytics System



Teknobuilt has seamlessly integrated all employees and contractors into the system, allowing administrators to assign or modify personnel based on their competencies. **Performance grading** is also configured according to job criticality. Real-time progress updates, coupled with **geolocation tracking**, are provided, with visualization options including maps, plot plans, and work area representations.

GIS in PACE HSE+ empowered decision-makers with enhanced data leading to informed decision-making

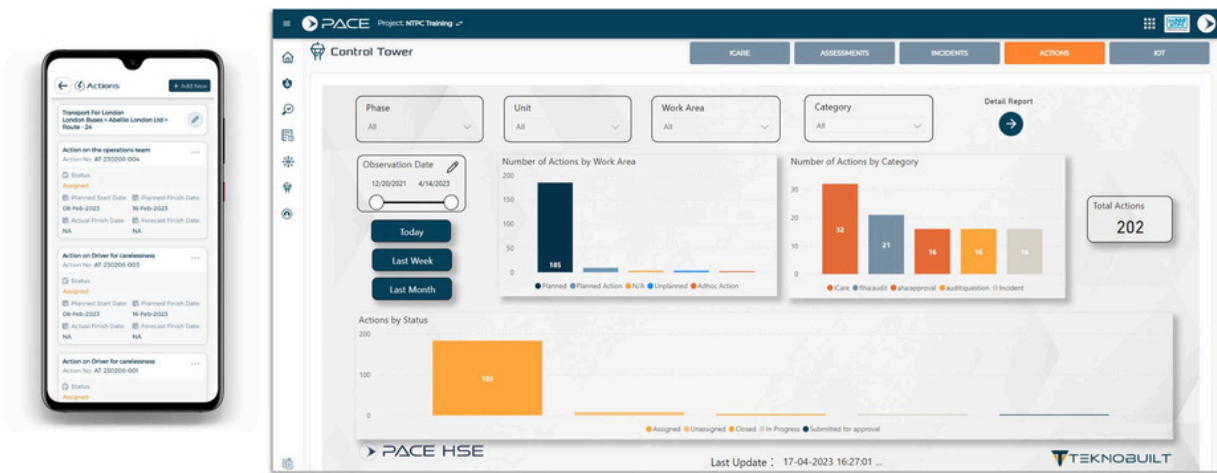


Results

Real-Time Notifications Based on Job Observations Received On-Site



PACE iCare module has been adapted to address NTPC's needs regarding unsafe conditions, behaviors, and positive actions. Moreover, the compliance module has been customized for efficient inspection and audits, enabling digital assessment of contractor and employee areas.



Results

The Gain for the Project

PACE HSE served as a centralized hub for NTPC, ensuring access to current procedures. **Daily safety checks via FLHA** engaged every worker proactively, preventing missed actions and enabling swift corrective steps. The system shared lessons learned, flagged issues promptly, and engaged leadership effectively. PACE HSE's digital processes **reduced issue resolution time, minimized field errors with QR codes, and improved coordination across teams**, driving overall efficiency and safety in operations.



PACE HSE+



Expert Transformers

Teknobuilt's skilled team adeptly tackled and mitigated challenges encountered during the NTPC. Their collaborative spirit and diverse skill sets turned challenges into opportunities, showcasing Teknobuilt's commitment to excellence and ability to navigate intricate projects. This success further solidifies our position as industry leaders, setting a high standard for future projects and highlighting our team's proficiency in overcoming obstacles.



Tanvi
Garg

Program Manager

Smooth integration of digital safety measures, aligned efforts with the client's objectives and ensured timely coordination.



Ajay
Chauhan

Productivity Engineer

Executed the digital safety platform; Implemented and improved current safety protocols.

Client Feedback

“Teknobuilt has successfully constructed a platform that facilitates the tracking and documentation of our safety assessments, delivering real-time metrics through comprehensive daily reports. Building a robust partnership, their accommodating representatives navigated evolving project requirements seamlessly. Despite dynamic requests and frequent project changes, Teknobuilt consistently rose to the challenge, fostering open communication throughout. Together, we crafted a professional and visually intuitive platform.

The flexibility and prompt responses from Teknobuilt, even outside scheduled times, haven't gone unnoticed. Grateful for their cooperative spirit and professionalism, we eagerly anticipate continued collaboration and learning in future projects. Teknobuilt's unwavering dedication to accommodating our needs has been instrumental, and we highly value their commitment to excellence.”



About Teknobuilt



Teknobuilt is transforming the way projects are built and operated with an unmatched digital assurance in meeting delivery timelines. With the vantage of Teknobuilt's unified digital platform - PACE OS products and services, the accelerated execution efficiency, standardization and predictability can help retrieve up to 8 to 20% as actual cost reduction from the estimate.

Owners and builders especially during the execution often end up where the information is delayed, or remain in the dark - not knowing the true project status. Not until additional funds are needed or delays become unmanageable.

Eliminating the siloed execution, overcoming organizational systems and data fragmentation; PACE works continually to de-risk the scope and the digital execution framework has an impact where "the sum is greater than the parts" across owners, engineering, suppliers, and contractors.

Empowering Decision Makers:

New projects or the ones already in design or even those where the construction has started, PACE platform features a unique block-based map to help navigate the entire ecosystem of a project from design to delivery. With the unprecedented power to look at the entire value chain using PACE Digital Control Tower™, decision makers have the instantaneous visibility, predictability, and proactive execution control with data-driven intelligence as never experienced before.

Teknobuilt's vision is to help the world build better - safely, smartly, and sustainably. Block by block, the transformative approach to deliver **speed, surety, and savings** is reshaping the landscapes of how projects are built and operated.

We are committed... Let's build better!

TEKNOBUILT



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Inspired by NTPC's success story?



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Get in touch with us to start your journey toward outstanding results.



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