

CAPABLE LEADERSHIP ENSURES CONTRACTOR SAFETY: TITAN CEMENT BUILDS NEW LINE IN EGYPT WITH ZERO LOST TIME INCIDENTS



In 2007, Titan Cement Company S.A., one of the leading cement producers in the world, decided to build a new cement manufacturing line in Beni Suef, Egypt. The company was investing €150 million, but had no local staff to supervise this project on-site. They therefore had to rely on contractors who sub-contracted the work to local Egyptian firms. This was one of Titan's largest construction projects and senior management was adamant that it had to be built without any safety incidents. Panikos Trakkidis, Executive Director of Group Engineering and Technology, made clear that the company wanted to be in the first quartile in the cement industry in terms of safety. "Safety is a major part of corporate social responsibility at Titan. We do not see it as separate from the rest of the business. It provides us with the social licence to operate," he says. In addition, this project needed to run smoothly: on time and on budget.

Success factors ...

- Clear communication
- Visible commitment and leadership by Titan
- Contractor safety management programme
- On-going checking procedure
- Pre-start up review for new line

... that lead to measurable results

- Zero Lost Time Incidents in 6.5 million man hours
- Tight control of contractor and sub-contractors
- Construction completed on time
- Lasting change to safety habits and procedures within Titan

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MANAGING CULTURAL DIFFERENCES

“I was informed by management that this project would not be considered a success if there were any incidents or injuries during the project,” Titan Project Manager, Michael Barboutis said. Given the location, the size of the project and the fact that construction is considered to be one of the most hazardous industries, Barboutis’ reaction is understandable. “We were working in a hot climate, with a French contractor and local Egyptian sub-contractors who had a completely different mindset. The cultural differences were huge.”

While Titan itself has an effective safety management system, actualizing safety for contractors and sub-contractors is a different story. Barboutis knew that, at the peak of the project, there would be more than 1,300 people working on the site, almost all of whom would be contract workers employed on a daily basis with little or no experience of working to high safety standards.

“As this was such a big project, Titan’s management decided to call in a world renowned company to help us,” Barboutis explains. “Our top management wanted to provide the best resources to make this project a success.”

Titan’s Corporate Safety Manager, George Argyriou, chose DuPont, a multinational organization with cross-cultural management experience. “I came to Titan Cement to improve workplace safety standards. From my experience I knew that DuPont is the guru in safety.”

FROM PLANNING TO EXECUTION

DuPont appointed Sherief El Kably as Project Manager for the joint work with Titan. He says: “From the first visit to the site, seeing the unpaved location area with only a couple of caravans on-site, I realized a huge effort would be required to ensure that we keep all parties focused on safety while meeting the project deadlines. DuPont knew that, although Titan had developed an effective safety management system, this focused on the company’s operating plants. Titan did not have a lot of experience or systems in place for handling contractor safety.”

Working in conjunction with Titan, DuPont tackled the project in four stages following a Plan-Do-Check-Act cycle. The first step was for Titan to get all parties aligned to their safety performance expectations. The most effective way to do this was via visible management commitment.

DuPont and Titan, therefore, developed and set up a project plan for all three parties involved, clearly setting out rules and establishing standards and minimum expectations. This included, for example, the implementation of a Health

and Safety Management system. Titan then developed a safety organization chart which clearly outlined roles and responsibilities, communication channels, as well as health and safety plans. Project objectives in terms of statistical metrics and key performance indicators were also prepared.

In a second step, DuPont and Titan set up a contractor safety management programme specifically for this project. This not only covered training, but also set out specific requirements for common construction high hazard activities and included inspections, the introduction of a new Permit to Work system, reporting and orientations for the sub-contractors.

“We reviewed our contractors’ health and safety manuals and plans and often had to go back to request changes,” Barboutis admits. “We ensured that even such small details as which hospital to use in case of an accident were specified. It was a very difficult process, as the sub-contractors always questioned the standards and regulations, but it was an important alignment building process for all three parties.” Titan also worked hard to get the top management of sub-contracted companies on board.



Beni Suef was one of Titan’s largest construction projects to date.

The good safety performance of sub-contractors and contractors was recognized in ceremonies awarding safety certificates.



Once training had been carried out and the Permit to Work system was up and running, it was essential to keep a close eye on the progress of the contractors and sub-contractors towards safety during the lifetime of the construction project. As part of an on-going auditing procedure, DuPont provided regular field support, with a consultant carrying out monthly on-site observation, systematic field audits and support. The DuPont consultant would walk through the entire site, assess how well safety was being implemented by all parties and provide technical advice on hazards as they arose during the different project phases.

At the same time, DuPont ran several customized, functional safety training events for Titan and its main and sub-contracted engineers and employees. These training sessions reviewed and tackled deficiencies discovered during field tours, as well as any new systems as they were introduced in the project.

Finally, after construction of the line had been completed and before it became operational, DuPont conducted a pre-start up review to ensure all necessary safety checks were performed and that the line would start up without any issues.

George Argyriou admits progress was not straightforward. “At the beginning it was not easy working with the sub-contractors. They were just not used to such high and strict safety standards. Right from the start we were very strict and did not accept deviations

from the safety rules. Anyone who did not conform was not allowed to enter the plant. As a result, we initially ended up having to let those who didn’t comply go, just to set an example.”

VISIBLE AND FELT LEADERSHIP

Dimitris Bazakas, Safety Manager, Group Engineering and Technology says in summary: “The project was a success because Titan clearly demonstrated and communicated how this project was to be run. Contractors and sub-contractors followed our lead. We spent a lot of time with them, frequently on-site, so it was clear this was not just a ‘come in, come out’ situation. As soon as you passed through the gates of the site, you could feel that safety was important. There were barricades, labels and proper scaffolds. The project manager was always present, attended most training sessions, reinforced the safety message, looked at safety personally, and always conducted a safety observation tour at the end of the day.”

As a result, Titan Cement not only completed the construction of its new line on time, but also managed to run this major construction programme from January 2008 to December 2009 without a single Lost Time Incident in the 6.5 million man hours worked. Titan kept everyone up to date on progress by celebrating every million working hours without a LTI: an outstanding result considering the nature of the project and the location.

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Sherief El Kably, who has since gone on to another safety management role in Egypt, analyses the reasons for Titan's success: "I believe that there were a couple of success factors. One success factor was Titan's belief in safety as the correct strategy. The company applied the DuPont methodology in a thorough manner, thus incorporating a strong safety management system into the effort from start to finish. Another success factor was the close working relationship between all parties involved on all matters. The final result was a success both in terms of project delivery and safety."

Although the sub-contractors subsequently left to work on other projects, the rigorous safety regime introduced by DuPont in Beni Suef had a ripple effect. The contractors won other contracts based on the good safety performance achieved in Beni Suef. The site HSE manager for ESACO, the main subcontractor, was promoted and became the company's HSE manager. Also, Titan's site manager, Michael Barboutis, shifted from his long project management career and became HSE director for Titan in Greece, proof of how much he believed in safety after witnessing the success of this project. Titan's safety professionals feel they continue to benefit. Bazakas says, "I now feel more able to predict problems and understand the underlying issues concerning contractor safety. I have since implemented the Permit to Work system at a Titan site in Bulgaria. Good results are possible, if you really want them and have the courage to show contractors you are serious about safety."

Panikos Trakkidis, Executive Director of Group Engineering and Technology, is happy with the outcome. "We have learned that it costs a lot if you operate unsafely. What we did in Egypt has now become a way of operating for Titan. Therefore, although we have experienced a downturn in the economy, we have not cut safety and training. If you start something, you have to stick with it and continue the momentum."

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Titan Group is an independent multi-regional producer of cement and other related building materials. Headquartered in Greece, with a track record of continuous growth since its establishment 107 years ago, it has expanded its production and distribution operations into 12 countries, directly employing more than 6,504 people, with a consolidated turnover of €1,578,458,000 (2008).

In 2010, Titan Cement was awarded the prestigious DuPont Safety Award for cultural evolution in recognition of the efforts to ensure zero injuries on the Beni Suef site. "We are very pleased to recognize Titan Cement for their achievements and commitment to safety excellence and the welfare of their employees" said Koen Van Neyghem, President, DuPont Sustainable Solutions, Europe, Middle East and Africa. "6.5 million man hours without a lost time incident is a major accomplishment, one worth recognizing and celebrating."

