

HAZARD HUNTING HEADQUARTERS (3H)



TEKFEN CONSTRUCTION





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Tekfen Construction, a leading corporation in challenging fields of contracting and a studious environmentalist, traces its roots to an engineering consulting company established in 1956 in Turkey.

ABOUT TEKFEN CONSTRUCTION

Tekfen Construction, an affiliate of Tekfen Holding, is a respectable name in the international contracting arena with over 350 projects successfully completed in Turkey, Middle East, North Africa, Caucasia & Central Asia, and East & Central Europe. Its activities range from heavy civil works to refineries and petrochemical plants; from satellite towns to large industrial processing plants; from pipelines and marine structures to power plants, electrical and communication works.

With its sister companies in engineering and steel manufacturing as well as strategic partnerships, Tekfen is a dynamic and sought-after EPC contractor, specializing in oil & gas, pipeline, infrastructure and civil works.

As an ISO 9001, ISO 14001 and OHSAS 18001 certified (in the process of ISO 45001 certification) company, Tekfen is dedicated to the highest quality standards and aiming excellence through «continuous improvement».

Tekfen Construction is a large family of 18,000 employees, including subcontractor's personnel.



TURKSTREAM RECEIVING TERMINAL PROJECT

TurkStream Project, owned by South Stream Transport B.V., whose budget is 11.4 billion Pounds, directly connects the large gas reserves in Russia to the Turkish and European gas transportation networks.

The pipeline enters the water near Anapa on the Russian coast, after crossing through Black Sea, comes ashore on the Turkish coast in the Thrace region, near the town of Kiyıköy.

Activities which pose high risk such as; working at height, hot works, confined space entry, lifting, excavation, electrical works etc. have been carried out during the project.

All HSE precautions have been taken in accordance with Tekfen HSE Policy, plans and procedures, Project requirements, legal requirements and related standards to protect employees from the risks of the said activities.

HSE trainings took their place within these series of precautions as one of the most important proactive measure.



TURKSTREAM RECEIVING TERMINAL PROJECT



Project started in November 2017 and completed in March 2020 with the scope of 1.1 million m³ earthworks, 100,000 WDI (2,500 tonnes) piping, 920 km cable works and 4 km 32" pipeline from offshore to the terminal.

During its peak time, more than 2,500 employees were involved in the project. Taking into account the personnel circulation throughout the project execution period, more than 4,000 employees took part in various project-specific activities.

TRAINING PROGRAM

The goal of Tekfen's training and education program is to encourage a lasting behaviour change that will result with positive HSE culture. Tekfen uses the tools listed below to achieve this goal;

- HSE Induction Training
- New Employee Program
- Job Specific Trainings
- Tool Box Talks
- ***Practical Trainings***

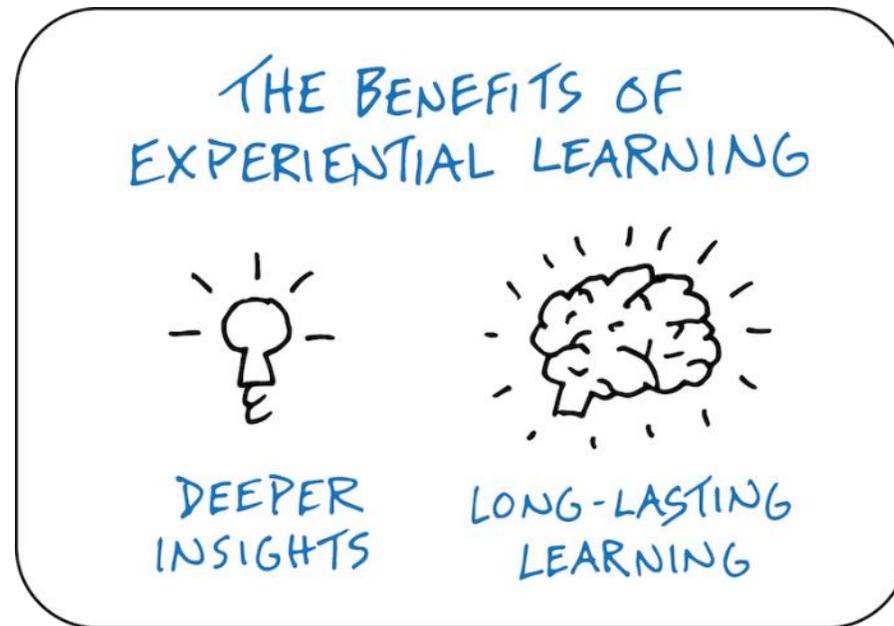
At Turkstream Receiving Terminal Project, training activities started at the mobilization phase and continued till the end of the Project. More than 95,000 hours of HSE trainings (1.14% of total working hours) were conducted to all personnel at the Project.



PRACTICAL TRAINING

In addition to theoretical training; *practical/experiential trainings* were preferred to be conducted to increase HSE awareness of employees at the Project.

Practical Training allows learners to engage in hands-on learning. Studies have shown that practical training, where a learner carries out physical activities rather than listening to a lecture, helps them to gain a better understanding of the material.

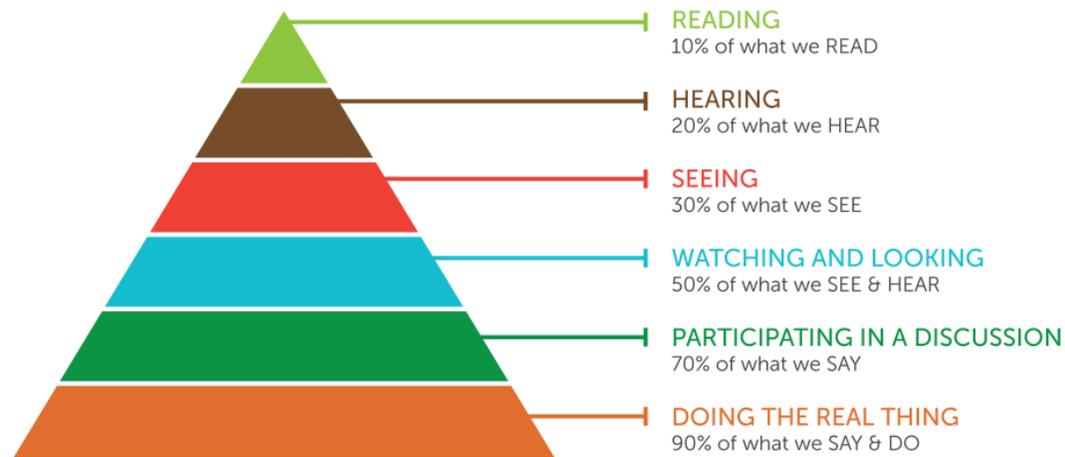


PRACTICAL TRAINING

It allows trainees to experiment with trial and success/fail, learn from their mistakes, and understand the potential gaps between theory and practice.

Incorporating practical trainings into theoretical trainings are easy way for instructors/trainers to show employees exactly how what they are learning can be used in the workplace.

It is often hard to properly understand something you have never experienced. That is why practical training is so important.



Edgar Dale's Cone of Learning

I HEAR AND I FORGET

I SEE AND I REMEMBER

I DO AND I UNDERSTAND

- CONFUCIUS

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A practical training area named 'Hazard Hunting Headquarters' was established on an area larger than 1000 m² at Turkstream Receiving Terminal Project.

Beyond the contractual requirements, Project HSE Team presented the idea of establishing a practical training area after studying the required materials, tools and budget. Tekfen allocated 100% of required financial resources to this 'HSE Best Practice'. The value added by '3H' was that, all employees who received theoretical HSE induction training have consolidated their knowledge at the practical training area via hands on training method.

Illustration of hazards that are frequently seen at the site are presented at '3H'. The risks posed by unsafe acts & conditions, and the measures to be taken against are explained to the employees with practical methods.



HAZARD HUNTING HEADQUARTERS (3H)

Average success ratio in HSE courses (94/100) were higher than similar Tekfen Project (82/100) as per the results of post training exams as a sign of efficiency of the 3H.

Practical trainings include topics listed below;

- Hazard Identification,
- Working at height,
- Scaffolding Safety,
- Confined Space,
- Excavation,
- Lifting Gears and Accessories,
- Electrical Safety,
- Grinding,
- Hand Tools,
- Manual Handling,
- Correct use of PPE, etc.



HAZARD HUNTING HEADQUARTERS (3H)



**WORKING AT HEIGHT
SCAFFOLDING SAFETY**

Information about the measures against the working at height risks, safety standards of the scaffoldings / working platforms, and most common mistakes repeated at site were presented to the employees via comparison of correct and incorrect examples.



HAZARD HUNTING HEADQUARTERS (3H)



CONFINED SPACE

Employees had opportunity to learn by observing whether the activity was in compliance with the Project rules described in the theoretical induction training. They also experienced the difficulty of rescue from a confined space by carrying a dummy as heavy as a grown person.



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GRINDING

Differences between safe and unsafe grinding areas were shown pertaining to its electrical cable management, warning signs and housekeeping.



HAZARD HUNTING HEADQUARTERS (3H)



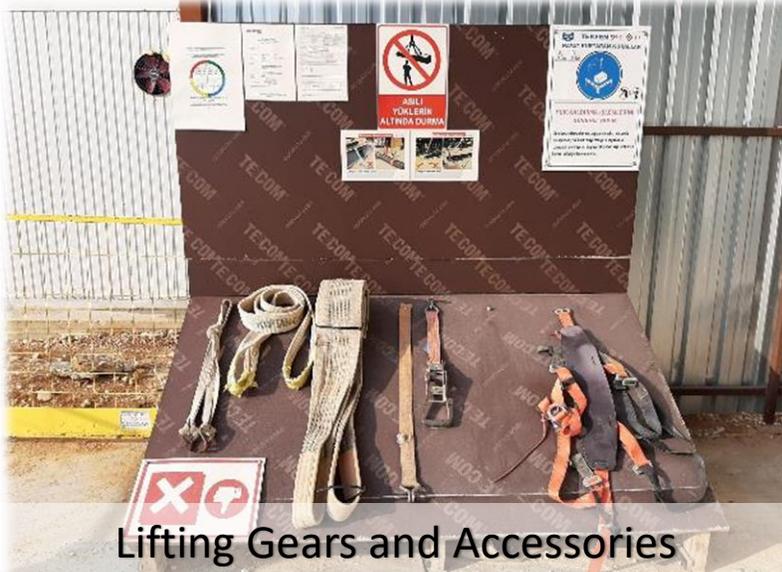
Waste Segregation



Hand Tools & Abrasive Wheels



Emergency Equipment



Lifting Gears and Accessories



Ladders

T-STAR (TEKFEN – Safety Talk About Risks)

One of the most important topic of ‘3H’ is to ensure the entire workforce is familiar with the T-STAR System applied at Tekfen Construction Projects, which is an additional tool to train the employees about risks and precautions, by practicing the risk assessment at site.

WORK CREW MEMBERS INVOLVED		POST TASK REVIEW
<i>If any deviation from safe work procedures and this T-STAR occurs, activity must be STOPPED.</i>		<i>This part will be completed by the task team leader at the end of the task / shift.</i>
NAME	SIGNATURE	
1.		Was any accident / incident occur during the task? <input type="checkbox"/> Yes <input type="checkbox"/> No
2.		If "Yes" please explain :
3.		What problems were encountered with the task? :
4.		What can be done to improve safety performance?
5.		Is the work area cleaned after the task completed? <input type="checkbox"/> Yes <input type="checkbox"/> No
6.		<u>Name and signature of Task Team Leader:</u>
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
This form shall be returned to HSE department at the end of shift or when task is completed.		

SAFETY TALK ABOUT RISKS (T-STAR)

Project : Date : / / Time :

Task to be conducted:

Task Location:

T-STAR conducted by Signature

T-STAR controlled by (HSE) Signature

This form shall be completed daily at the working location, prior to work and returned to the work process. Each crew member involved in the task shall sign this form. Completed form shall be kept at a construction location throughout the course of the task.

JOB HAZARDS AND PRECAUTIONS		PRE-TASK REVIEW
POTENTIAL HAZARDS OF THE TASK :	PRECAUTIONS TO BE TAKEN :	Weather Cond. <input type="checkbox"/> Sunny <input type="checkbox"/> Cloudy <input type="checkbox"/> Rainy <input type="checkbox"/> Snowy <input type="checkbox"/> Windy
.....	.....	Is the Method Statement shared with crew? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Is the Risk Assessment shared with crew? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Is the work area barricaded? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Is the drop zone barricaded and labelled? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are all hazardous areas marked with signs? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are all employees equipped with full PPE? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Is the task require special training? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are all operators have valid certificates? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Is the task require a Work Permit? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	If "yes", is the Work Permit obtained? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Is a Fire Watcher or Standby Man needed? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	If "yes", indicate name :
.....	.....	Is the crew informed about emergency? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are the emergency routes clear? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are tools / equipment inspected before use? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are the ladders and platforms inspected? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are all electrical panels inspected? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are all electrical cords in good condition? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are all lifting/rigging devices inspected? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are the scaffolds tagged with Green scuffing? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are all elevated areas equipped with fall protection systems? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are all the flammable / combustible materials stored separately and secured as per procedure? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are the chemicals handled as per MSDSs? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are the potential energy sources isolated? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Are the necessary precautions taken for environmental protection? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	Is the activity creates risk for 3rd parties? <input type="checkbox"/> Yes <input type="checkbox"/> No
.....	.....	<small>TEKFEN-004-SEC-PRO-001 Rev 0</small>

In addition to documented risk assessments, each individual work crew conducts pre-start risk assessment prior to start any work at site, which is called Safety Talk About Risks (T-STAR).

T-STAR

T-STAR aims to evaluate the additional hazards / risks which are not identified on documented Risk Assessment.

Supervisors / Team Leaders establish employee involvement in the Safety Talk About Risks (T-STAR). All craft employees are required to participate in an individual T-STAR study prior to the start of each shift and for each new task.

Implementation of T-STAR tool is being explained to employees in detail by hands-on training method during the sessions at Hazard Hunting Headquarters. Employees learn how to observe unsafe acts/conditions and identify risks of this act or condition and measures to be taken to prevent occurrence of any incidents.



BENEFITS OF '3H'

At Turkstream Receiving Terminal Project 5,000,000 working hours without Lost Time Incident accomplishment was achieved. Effective implementation of Hazard Hunting Headquarters, along with all other measures taken, contributed to this remarkable achievement.

As efficient training being one of the most important proactive HSE measures, with the help of '3H', Lost Time Incident Rate of the Turkstream Receiving Terminal Project (0.238) was lower than average of similar Tekfen projects (0.401).



ADDITIONAL BENEFITS OF '3H'



Priority was given to local community in recruitment process as a requirement of the Project. Hence, many local people who were involved in practical trainings gained a professional point of view about Occupational Health and Safety. As well as its positive effect on their career, trainings such as 'Off the Job Safety' helped them to increase their awareness on the safety of their families and beloved ones.

As well as trainers, task supervisors also conducted hands-on trainings to their crew members about specific task related hazards at the Hazard Hunting Headquarters. Efficiency of hazard identification trainings were seemingly increased by the contribution of supervisors. These training sessions developed a teacher-student relation between crew members and their supervisors. Number of observations/suggestion records increased by 35% through the healthier communication gained by the said training sessions.





Thank You



BUILDING
A Sustainable
FUTURE