

Maintenance Shutdown Turns Around Safety!

B-Safe® is a Behavior-Based Safety process that creates a 'safety partnership' between wage roll employees and management to improve safety performance. Although the emphasis is on those injury causing behaviors identified from incident reports, associated outcomes include better communications, reduced incidents, and cost-savings from reduced operating costs.



An LNG Producer was shutting down two Trains for an annual maintenance scheduled for 30 days with around 3,600 people. Total Injury rates during previous shutdowns were not high, but still unacceptable to the company. In addition to the normal safety management systems, the company used B-Safe® on the shutdown to help control safety behavior

B-Safe® began with 'buy-in' sessions with all plant and offshore platform employees, and maintenance personnel from 10 contractor companies to undertake approximately 840 jobs. The idea was to seek their support and inform them about the process. This took 5 days.

A plant project team were trained to implement the process over a five day period. This included background information on behavioral principles, incident analysis, checklist development, observer training, goal-setting, feedback, observation data-entry and analysis.

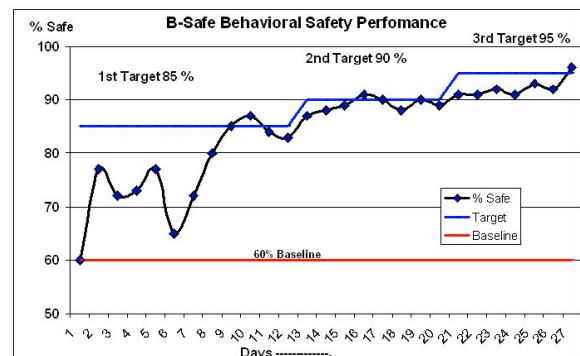
Unsafe behaviors were obtained from analysis of previous shutdown incident records. These were developed into 'Behavioral Observation Checklists' for 57 observation areas.

270 volunteer observers were recruited and trained over 9 days, to use the checklists, give feedback and set targets with their workgroups. The observers monitored their colleagues in the plant areas for 10-20 minutes on the first day of the shutdown to find out how safely people worked.

Each workgroup then set an improvement target. Observers continued to monitor daily and gave feedback when observing people and at daily feedback meetings, during 'tailgate' talks. The project team followed up any corrective actions, the status of which was reported back to the workgroups.

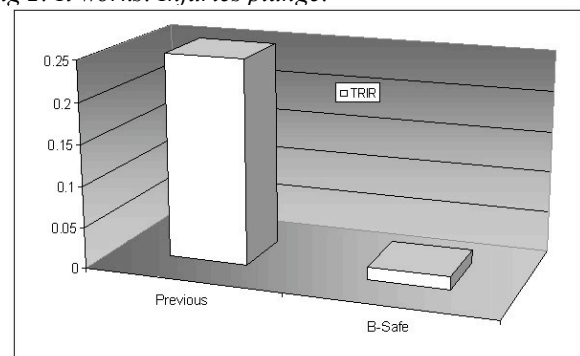
Activities on the shutdown included major inspection of Turbines, Propane compressor re-wheeling, Replacement of molecular sieve in drier beds, Refractory repair of incinerator furnaces and Seawater line inspections

Safe behavior improved by 35% during the course of the shutdown from 60% on day one to 96% on day 28.



Completed 2 days ahead of schedule, no Lost-time injuries occurred at all, a Reduction of 100%. First-aid cases also fell by 70%.

Fig 2: It works! Injuries plunge!



B-Safe® is now used on all shutdowns.