OSART Good Practices
LEADERSHIP AND MANAGEMENT FOR SAFETY
Human factors management

Arkansas, USA

Mission Date; 15 Jun.-2 Jul., 2008

The use of a Human Performance Programme to develop a culture of continuous improvement.
The plant has a focus on behavioral improvements that result in prompt feedback that drives continuous improvements. The focus on behavioral improvements is evident throughout the organization including the management positions and individual contributors. Feedback is provided and accepted freely. The feedback occurs from supervisor to individual contributor, from peer to peer and from individual contributor to supervisor. The behavioral focus has become engrained in the fleet culture where emphasis is placed not only on what is done but how it is done and the behaviors exhibited. Behavioral feedback has become natural, accepted and even sought by all levels of staff and contractors.

Various tools are utilized to provide structure for the behavioral improvements. Leadership Effectiveness Logbooks are utilized as a simple means to document the coaching interaction. Goals are utilized on the number of interactions to help ensure interactions occur. The information is tabulated in a database and reviewed by the second line manager. A simplified coding system of behaviors is utilized to minimize the documentation burden. The database is used to analyze the data for trends. During refuel outages the data is compiled and analyzed daily. Behavior improvement messages are formulated based on the analysis. The message is communicated daily and represents the focus area for the next days coaching. The subsequent day's data analysis is a means of checking for penetration of the message.

The mental and physical wellbeing of the employees is monitored by observation of their behaviors. By observation of the employee, the supervisor establishes a baseline of behaviors. The supervisor observes for deviations from the established norm. The supervisor certifies monthly by signature that the observations have been made and no deviations are noted. Supervisors are trained annually on what behaviors to observe. All employees (including contractors) are covered by this programme.

The foundation for the human performance programme is based on formal procedures. The procedures describe the roles and responsibilities as well as the process elements. The procedures also describe the various behavioral traps (time pressure, shift change, etc.) and provide tools (self check, peer check, etc.) to counteract the traps.

The fundamental benefit of the focus on improving behaviors is that it results in a culture of continuous improvement. The free flow of behavioral feedback both reinforcement (positive) and correction (negative) results in continuously driving to new levels of performance. Errors are reduced and thus plant performance improved because of the feedback on human performance. Employee well being is improved because of early identifications of behavioral issues. Corrections are made before significant consequences are experienced. Additionally, the human performance programme fosters an environment which encourages the development of complementary programmes within the plant.

Dampierre, France

Mission Date; 31 Aug.-17 Sep., 2015

The regional contractors association (PEREN) provides independent advice and support to on-site contractors through the appointment of a dedicated on-site representative, who provides a number of services including coaching. This is done in partnership with the plant.

A dedicated advisor post for the on-site contractors was set up when the Quality, Health, Safety and Environment Committee of the regional contractors association PEREN, as part of a partnership agreement with the plant, decided to streamline its organization to ensure stronger focus on:

– Better control of maintenance work quality
– Risk prevention
– Professional enhancement and development of workers through training.

A representative of PEREN is on-site at all times and provides the following:

– Field walkdowns during power operations and outages, with a focus on maintenance operations;
– Identification, analysis, and support in processing ‘near misses’ and hazardous situations;
– Advice in work planning and execution, and provision of operational experience (OE);
– Provide specific advice and contractor training e.g. on-error prevention, oversight, legal matters, and foreign material exclusion (FME);
– Coaching to first line contractor supervisors;
– Specific support to contractor firms when needed;
– ‘Just-in-time’ training before outages.

These services provide contractors with direct and independent support in the field to help them understand the plant’s regulatory requirements and communications on standards and expectations. This has resulted in better use of error prevention techniques by contractors on site.

Leningrad, Russia

Mission Date; 13-30 Nov., 2017

Analysis of physiological value of plant main control room operators.

Plant Main Control Room (MCR) operator performance was analyzed by measuring work capacity status before and after shift for day, evening and night. The examination was based on three methods:

- A well-being and activity mood test which includes an on-line assessment of physical and mental state which allows determination of the stress rate of body functioning before and after shift.
- A method of variational chrono-reflexometry which allows assessment of the functional state of the central nervous system and working ability on five levels before and after shift.
- A questionnaire assessing work complexity.

The analysis provided a correlation of working ability against each particular shift (day, evening, and night).

The results concluded that the third night shift and second day shift are least favourable from the viewpoint of operator working ability. The plant therefore minimizes complicated tasks to be performed on these shifts, resulted in reduced personnel errors and improving operator performance reliability.

Leningrad, Russia

Mission Date; 13-30 Nov., 2017

Implementation of specialized rooms for psychological and physiological support to improve individual performance reliability.

The plant has implemented four novel rooms for psychological and physiological support of personnel. The rooms include an individual counselling room, a sensory room, a functional rehabilitation room and a room for professionally important quality modification. The individual counselling room includes hardware and software equipment to support professional counselling following stressful plant evolutions or events, or to support general mental health of personnel. The sensory room utilizes visual, auditory, and tactile stimulation as therapy methods for personnel exposed to abnormal levels of stress either on or off the job. The functional rehabilitation room includes multiple tools for physical rehabilitation and relaxation in support of stress management for personnel. The room for professionally important quality modification utilizes specialized tools to assess and develop emotional resilience, sensory reaction, and sensory capability in support of job specific demands.

Utilizing these rooms and equipment, all licensed staff, including any individual in a role which could affect safety, must undergo examination to determine fitness for duty and professional reliability. An individual development plan is prepared for each person that utilizes this equipment. These services are also available to all other staff as needed. Approximately 1500 persons visit the rooms annually.

This psychological and physiological support has resulted in reduced stress, improved physical well-being, reduced fatigability, increased physical performance, improved mental capacity, and ultimately improved personnel reliability and error reduction amongst plant personnel.