Penly, France

Establishment of the Human and Organizational Performance Committee (CPOH)

The plant decided to create the CPOH, an intermediate body between the department’s event management committee and the plant’s event management committee. This body gives the plant’s event management committee a thorough analysis of the most vulnerable lines of defence and also puts forward comprehensive actions to widely share experience, with all disciplines, on issues identified on the field and their solutions as well as on good practices. The plant manager chairs the CPOH; its secretary is the human factors consultant. It is an extension of the plant’s OE committee, whose task is to crosscheck different sources of OE.

The CPOH includes plant management team members such as the plant manager and the nuclear safety advisor, as well as all plant disciplines. It is therefore a real opportunity to share experience to reinforce the 25 lines of defence and acts as a forum to discuss all factors challenging the defences.

Penly, France

Use of Lines of Defence to assess and coordinate plant performance

Penly NPP created lines of defence to define and list the findings from management presence in the field.

This inventory is a typology of all the various defence levels at the plant (design of facilities, availability and performance of equipment, systems lay out, means of intervention, quality of documents, organizational team, planning of activities, skill level of workers, relevance of controls, use of experience feedback, HR management, etc). Facts and findings can therefore be characterized on the basis of their positive or negative impact on one line of defence. Facts and findings may come from experience feedback (SOERS, plant local events reports, low level events, inspections by the Quality Assessment Dept., findings from Safety Authority, findings from management field visits). They give the plant various insights into safety performance levels that are complementary and comparable and are reviewed on a regular basis by various plant bodies.

All organizational unit managers have been trained on the use of this simple tool shared by all departments. It helps to characterize all types of findings from all experience feedback sources. These characteristics help to enhance the safety performance assessment at all management levels (teams, departments and NPP) by comparing the various operating experience sources. Eventually this tool allows to analyze and monitor the quality of management tours in the field and to focus field tours on the weakest lines of defence. Trend monitoring has demonstrated the efficacy of the coordination of management presence in the field. This tool has helped to target areas for improvement (e.g.: risk analysis) and reverse the nature of negative findings on the corresponding line of defence.
Oskarshamn, Sweden

Timely capture of human factor and safety culture data during refuelling outages

The plant has established an on-call team that it is constituted during outages to collect event related data. This team is composed of thirteen skilled and experienced personnel, including human factors and safety culture experts, and can be gathered promptly in cases where a significant event could occur in the outage. The data will be used for subsequent a root cause analysis for events having organizational or safety culture related contributing factors.

As stated in the IAEA standards, the on-site investigation should be commenced as soon as practicable after the event occurrence, in order to ensure that information is not lost or diminished, interviewed personnel have a clear notion of the sequence of events and evidence is not removed. This on-call investigation team allows the plant to achieve these goals.

Metzamor, Armenia

Strategy to investigate Low Level Events and Near Misses.

The plant is committed to a strategy of increasing the number of investigated low level events and near misses. Plant statistics demonstrate that on the average 700-800 low level events and near misses for a unit are investigated per year and about 1100-1200 corrective actions are taken to eliminate the consequences of the events. The plant practice shows that this is an important strategy in improving safety performance. Recent plant experience demonstrates that there are strong indications that this strategy contributed to improving trends of declining performance and helped to avoid further degradation, i.e. occurrence of safety significant events, fires, serious industrial safety events.
Tools have been put into place to ensure root cause analyses are completed in a timely, consistent and deliberate manner to guarantee high quality of event investigations. Positive improvements in the quality of the products are evident.

These tools are:

1. A pre-job briefing is held during the first meeting of the investigation team.
2. A review of safety culture attributes associated to the event is performed as part of the root cause analysis. For each attribute identified, corrective actions are defined.
3. For each corrective actions preventing recurrence, mentioned in the root cause analysis report, an effectiveness review is pre-defined in the report. This effectiveness review is defined using concrete and specific criteria to measure the effectiveness of the action.
4. A communication plan is developed to convey lessons learned from the event to the station staff.
5. A quality checklist is completed and attached to each root cause analysis report. This consists of checks that the content and quality attributes are met such as the safety culture assessment was performed to address all the safety culture components; making sure that previous OE has been screened to find possible similar events and that corrective actions address the causes. These checks are comprehensive and are systematically used to achieve the desired quality before submitting report for approval. The team observed that following the implementation of these tools, the quality of root cause analyses was significantly improved.