Management presence in the field as a site management method. Significant presence in the field is set as a policy of plant management with high priority. Implementation of this policy is well documented and communicated to the plant managers on all levels and to the entire plant staff. Management of the site is based on strong presence in the field, which has improved the plant's results significantly. Management presence in the field is an overall initiative with formal specification, extending over time, whose goals are shared by different management levels. It has been a progressive approach and it has reached the different levels of management, right down to the work groups. As part of this initiative, each manager carries out field tours on which a report is written up (1,000 field tours have been carried out in 2004). The aims of field tours are to:
- encourage staff and encourage positive behaviour and good ideas
- correct any deficiencies found in the field, remind staff of plant rules and standards
- note any organisational or logistic difficulties which hamper the proper performance of activities and note the skills to be improved
Each department management holds specific meetings to examine the findings of the different managers, the deficiencies are prioritised, dealt with and classified according to organisational lines of defence. This classification gives each department management and the site an overview of the site's strengths and weaknesses, the management's findings are compared with the causes of significant events as well as with the Regulator's findings. Analysis of these lines of defence enables the management presence in the field programme to be readjusted to focus on identified weaknesses. Training sessions for all staff members have been carried out, bringing together the site's different work groups. All the site's management has received special training in the management of lines of defence, using the Paks fuel incident as an example. The human factors committee is made up of representatives of departments from the whole site. It analyses the lines of defence found to be the weakest to better describe them and share good ideas and good practices between departments and make them more robust. The initiative has been under way for three years and results are improving in all areas: nuclear safety, industrial safety (fewer significant incidents, no automatic reactor scrams for 2 years, fewer significant events, successful outages). An opinion poll conducted by the management of the corporate nuclear operations division shows that the satisfaction level of the site’s staff is above the average for the sites.
Use of decision-making sheets in case of complicated questions concerning nuclear safety, radiation protection, plant availability and environmental protection.

Any important decision to be made in regards with nuclear safety, radiation protection, electricity generation or environmental protection area is formalized and approved by the operations or maintenance Manager or on-call Manager.

The traceability of the decision made includes the following items:

• the definition of the problem and the decision to be made;
• the persons involved in the decision making;
• the possible solutions or scenarios to be considered and the related analysis/justifications;
• the final decision made;
• the internal and external communication to be made on the decision made.

As for examples, important decisions include the following:

• decision to shutdown the unit or to maintain the unit in operation in case of technical problem;
• decision to extend the outage duration for specific problems;
• decision to change the reactor operating mode;
• decision to reduce the power.

The decision to be made is raised by the shift supervisor or the outage project manager towards the related manager (Associate Directors or on-call Manager) and the basis for the decision making is prepared with the support of the necessary expertise (maintenance, engineering, safety engineers, RP, etc).
The Brunswick NP team utilizes multiple communication actions to ensure all personnel are informed and current on critical plant and company activities. These include general communications efforts to provide “big picture” information to employees and specific up to the minute technical information.

Information is communicated through:
- Daily (Monday- Friday) e-mail of "Brunswick News"
- Periodic e-mail management updates via “Straight Talk”
- Daily Outage Newsletter
- Daily (Monday- Friday) OSART Newsletter
- Monthly site management meetings attended by all supervisors and managers
- Twice weekly site leadership meetings (Monday and Thursday @ 0800)
- Daily (Monday- Friday) Plan of the Day meetings @ 0730
- Weekly Site Vice President Lunch meeting with employees
- Quarterly Senior Management Compliments and Concerns meetings
- Weekly cycle training management luncheons
- Bi-Annual"all-hands" employee meetings attended by all available people at the site

Current technical information is provided to a wide circle of plant staff through various computer systems. Plant personnel have easy direct access to this information. A few examples of this type of information are:
- Daily operator and turnover logs from the operating shift
- The work control system is on-line and workers can view the files on a read only basis. This allows people quick access to the latest on-line maintenance schedules and resource profile maps for system outages, as well as information on equipment out of service, scheduled system runs as well as system outage windows. It also includes restrictions placed on equipment such as limits on modifications or HVAC work. These profiles are updated automatically as adjustments are made.
- Site drawings, training records, licensing documents and other quality assurance documents are readily available over the computer.
- The BNP emergency preparedness (EP) internal web-site presents information in a format that is easy to read. It is current in a timely manner by the EP Staff and it contains links to these EP related documents that can be easily accessed by all employees for review:

As a result of the extensive communications outreach, employees are well informed on relevant issues, knowledgeable about important technical aspects of their jobs and quickly alerted when they need to respond. This results in increased ownership and pride in work performed well.
Site Teamwork
Management efforts have been effective in fostering a culture that promotes good teamwork, focuses the staff on the operational needs of the station, and fosters a healthy work environment. All levels of the organization have a low tolerance for behaviors that do not support team efforts.
A group of about 40 managers, superintendents, and supervisors participate in biannual team building exercises. Significant management time and company resources are invested to help build teamwork and enhance relations with the local community. An operational focus list is used to track and resolve current issues that challenge operational needs of the station. Each item on the list has an assigned owner of accountability and an associated action plan. A large number of senior reactor operators throughout the organization facilitate the use of this tool. Multi-organizational teams are utilized to perform project level work such as the development of a refuel team, comprised of mechanics, operators, I&C technicians, HP’s and engineering. This concept is used in other multi-organizational teams. High Impact Teams (HIT) are utilized for the development of complicated and critical projects to be performed during a refuel outage. These HIT teams are comprised of O&S, maintenance, operations, engineering and HP personnel to ensure that all competencies are represented.
The plant practices risk-informed decision making within the licensing conditions is implemented for many purposes. The plant makes efforts expanding this to all sensible applications for the full scope level 3 living PSA in line with the plant policy to optimise production in the environment where nuclear safety has the overriding priority.

Ever since the plant developed its first Probabilistic Safety Assessment (PSA) it has been used to support safety related decisions. The plant has over 20 years of experience with probabilistic evaluations of design improvements. In 1984 a PSA analysis was performed to evaluate different design options for secondary pressure relief. In 1987 a study was started to investigate the reliability of the electrical bus bars.

Since then the plant has added PSA insights as additional input in its safety related decisions more and more. Examples of applications are:

– Pilot studies have been performed to optimize the Technical Specifications.

– A pilot study on “Lower End States” has been performed. Useful lower end states have been defined, e.g. a Trip Monitor and a Critical Safety Functions Monitor.

– This year (2005) a pilot study has been undertaken to investigate the use of the PSA in precursor analyses, both as a selection tool and to provide additional insights in an event evaluation process.

– Borssele’s PSA data have been used to support decision making with respect to source term forecast in (severe) accident situations. The programme (SPRINT) now shows the probabilities of the possible source terms.

The plant has experienced benefits both in safety increase and in cost reduction by using PSA and its applications in the decision making processes. Examples are:

– Reduction of workload in the refuelling outages while at the same time reducing the risk profile, both for the outage and for the complete fuel cycle.

– The PSA has been used in the design phase of the 1st Periodic Safety Review (PSR), where in several occasions the optimal design could only be selected by using PSA insights.

– The plant calculates the risk has actually occurred over the time by a living PSA tool, the “Risk Monitor”. Due to the planned and unplanned unavailabilities the risk increases and its significance depends on the absolute risk increase and the time of the unavailability. The plant has set yearly targets for risk increase due to planned and overall (planned and unplanned) unavailabilities. These risk increments are evaluated and analysed periodically (monthly and yearly) and corrective actions are initiated. The objective for planned unavailability has been set to 2 % of the Total Core Damage Frequency (TCDF). The target for the overall unavailability has been set to 5 % for 2000 with a decrease of 0,1 %/year to 2008. The yearly actual TCDF are 8,1%; 1,99%; 2,93%; 4,15% and 2,55% from 2000 to 2004 respectively.

The PSA and its applications support performance evaluation and identify possibilities for further developments. The results show that, while surveillance and planned maintenance has increased during power operation, the level of nuclear safety has
improved over the years.

Mochovce, Slovak Rep.  
Mission Date; 4-20 Sep., 2006

Combined probabilistic and deterministic risk assessment for the different operational and maintenance scenarios control and minimize of risk.

The risk-monitor (RM) system is implemented in NPP Mochovce for real-time evaluation of units in relation to the actual configuration of systems and equipment. Unit configuration includes system and equipment status change, mode and operational unit status change, securing of components from operation for the purposes of tests, maintenance or repair and following renewal of these components by repeated putting into operation. RM calculates new reactor core damage frequency value on the basis of executed changes and configuration of systems and equipment in relevant time. Furthermore, in cases where actual calculated risk is too high, this tool may work as an advisor identifying what equipment has to be put into operation to decrease the risk to acceptable level.

Deterministic risk analysis of outage activities using Failure Mode and Event Analysis (FMEA) methodology is applied in outage preparation. The analysis consist of listing potentially risky activities, and ranking them based on "risk index" (frequency, potential consequences, potential of easy detection) and defining preventive measures.
ID+ challenge and innovative idea forum

As part of total quality management aiming to have innovative ideas come up from shop floor level, an innovative idea forum was put in place at the Saint Laurent plant in 2002.

Each EDF and non-EDF staff member working at the plant can suggest improvements in any given area (nuclear and industrial safety, radiation protection, environmental safety, availability, cost, working conditions, communication, organization, etc.). The first level of validation is done at departmental level. It is then submitted for plant-wide validation to the plant innovative idea committee involving all plant departments. An ‘idea of the month’ is thus selected every month.

At the end of the year, a challenge is organized to pinpoint the best suggestions. During this event, the best Saint Laurent ideas are selected for representation at the corporate DPN challenge.

Savings in all areas (nuclear and industrial safety, radiation protection, environmental safety, availability, cost, working conditions, communication, organization, etc.). Thanks to the current organization, relevant suggestions can be submitted to the corporate DPN innovative challenge, for enhanced performance.

With this system, working conditions can be improved, thanks to the provision of the right solution to a given issue and efforts can be acknowledged (selection of the best idea every month, prizes granted to the winners of the ID+ challenge).

The solutions offered represent gains in all areas.

The suggestions selected during the ID+ challenge are shared with other plants during the corporate DPN innovative challenge. The good practices that are chosen to win are made compulsory to other EDF plants.
Neckerwestheim, Germany

Mission Date: 8-24 Oct., 2007

Safety Management System Concept

The plant has commissioned in 2006 a Safety Management System (SMS) which is based on ISO 9001 standard.

The initiative started after a German event in 2001. The concept is to divide plant processes. For each process there have been defined performance indicators and an owner is responsible to monitor the process. The processes are separated in three categories: leadership processes, core processes and support processes. In total there are around 70 processes. For each process, there are common structured descriptions, which are shown in comprehensive flowcharts. These flowcharts describe how the process is working, the interfaces and the distribution of responsibilities. Process owners make sure that the process functions as expected, using performance indicators. All is supported by a sophisticated computer programme.

With the implementation of this concept the plant obtains:

- a standardized structure of the main plant processes,
- ensure the processes work appropriately at the cross functional interfaces, and
- by monitoring the processes, early decline can be detected.

Khmelnitzky, Ukraine

Mission Date: 29 Oct.-14 Nov., 2007

Plant personnel qualification record booklet used in the field.

A small record booklet is carried by all employees with all necessary information on qualification and training for the person. It is a very effective tool for management to check whether the worker is fully qualified before being assigned to a task.

After training and exams, all personnel receive qualification confirmation, which is recorded in this booklet.

This booklet also contains information about the regular medical examination and individual liability coupons (notification coupons) for potential industrial safety violations. These qualification booklets are personalized and stamped by the plant to prevent usage by other employees. KhNPP staff should have this qualification booklet with them during the work at the plant.

This managerial tool significantly decreases the time for checking to confirm staff qualification before giving permission-to-work.

Existence of notification coupons inside this booklet is also a preventive measure for violations of safety standards as well as a means of motivation of staff to improve global safety culture.
Motivation programme/ professional competitions

Comprehensive motivation programmes of professional competition are implemented both at the corporate and the plant levels. There are formalized criteria and indicators for competition among the plants (such as “the best nuclear power plant in Russia”, “the best plant in safety culture”), among the plant departments (the best department of Balakovo NPP, the best control room crew, the best working place of operational personnel, …) and among individual workers (the power industry man of the year, the best welder, the best field operator, the best electrician, …). Regular competitions are conducted with plant volunteer fire brigades. The competitions are widely popularized by the plant means of internal communication and the winners are given financial bonuses.

List of the plant general and professional competition programmes:
- The best NPP of Russia,
- The best Balakovo NPP department for fire safety
- Balakovo NPP department of the year
- The power industry man of the year,
- The best work place of operational personnel,
- The best department in industrial safety (evaluated monthly),
- Quiz on radiological safety among Balakovo NPP subdivisions,
- Quiz and competition of plant volunteer fire brigades and subdivisions operating personnel,
- Quiz on industrial safety rules,
- The best control room crew,
- The best health physicist,
- The best field operator,
- The best electrician,
- The best welder,
- The best machinery maintenance worker,
- The best chemistry laboratory assistant,
- The best engineer,
- Competition for best training-methodological material,
- Russian Competition"Enterprise of high social effectiveness"
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 day’s 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.
Safety Days

Rivne NPP has a practice of conducting Safety Days. Conduction of such days is based on the industry level standard document "Regulations in the area of work with personnel in the operating organization" and "Regulations about Safety Day conduction, developed at Rivne NPP."

A central commission is created yearly for the conduction of Safety days. The following people are included into this commission: Director General (commission chairman), Chief Engineer (deputy chairman), and managers of the upper levels (deputies general manager, deputies chief engineer, heads of the nuclear safety department, radiation safety department, internal inspection and fire protection) as members of the commission. This commission and the yearly programme for Safety Days' conduction are approved by the plant level order.

On the last week of each quarter inspections are carried out for two-three days. They cover different activity areas:
- Radiation safety. Review of compliance with radiation control regulations during relevant processes, the state of the arrangements for radiation control and following the requirements for radiation safety during storage, transporting and handling radwaste, compliance with the license conditions for activities associated with the sources of ionizing radiation.
- Nuclear safety. Review of the issues in the area of nuclear safety, fresh fuel handling, actual state of safety systems and safety related systems as well as compliance with the requirements for their operation. Consideration of issues of implementation of the schedule for modifications and modernisations aimed at the safety improvement at the Ukrainian power units in operation, compliance with the requirements of permits and licenses for unit operation. Review of the safety culture in the departments.
- Industrial safety. Review of adequacy of compliance with the regulator requirements, correctness of processes and certificates issued after technical inspections of equipment and pipelines; following the terms and schedules for the technical inspection of the equipment. Review of the operating instructions, programmes and results of equipment and pipeline tests. Review of operational safety indicators in the departments.

The majority of the operational departments take part in these reviews. Inspections are carried out inside the departments by department commissions. The chairman of each department commission is the department head. The members of the commission are appointed by the department head, usually chosen from the administrative and engineering-technical staff. One member from the central commission takes part in the work of each department commission. After the inspections each department commission registers all the detected deviations and remarks and also states activities for their elimination with the appointed responsible persons and terms for the implementation for these activities.

The final step of Safety Days are final meetings headed by the central commission chairman. At these meetings he listens to the reports of the department commission chairmen and the members of the central commission about the state of the activities which were scheduled for the previous quarter and results of the current quarterly review. Department commissions propose organizational-technical activities to eliminate deficiencies which were detected during the conduction of the Safety Days and the sufficiency of these activities is discussed at the final meetings.

A statement is issued during the week following the Safety Days of the results of its conduction. All the organizational-technical activities, with the terms for their implementation and responsible persons, are given in the attachment to this statement.

Areas of control are distributed as follows:
The area of nuclear safety- responsibility of Nuclear Safety Dept. Head
- The area of industrial and technical safety- responsibility of Internal Inspection and Fire Safety Head.
- Radiation safety- responsibility of Radiation Protection Dept. Head.
Complex organizational issues in part of Safety day conduction are the responsibility of Rivne NPP Nuclear Safety Department.

The approach used during the Safety Days is more extensive than the typical industry practice of communicating and reinforcing safety standards. The methodology and processes used allows improvements, including cross-cutting issues which can only be resolved with the involvement of several depts., to be addressed, and hence enhance the operational safety performance of the plant.
Production Activity Planning

The main tasks of Rivne NPP production activities for each year are specified in the "Integrated Plan of Organizational and Technical activities" and put into force by a direction approved by the corporate organization. The activities are grouped in the following way:
- Quality and management systems and certification;
- Safety analyses;
- Introduction of new equipment and technologies, equipment modernisation
- Ensuring nuclear and radiation safety;
- Operation of the active core and fuel handling;
- Environmental protection and efficient employment of resources;
- Radwaste handling;
- Ensuring labour, technical and fire safety;
- Lifetime extension;
- Management of materials;
- Water chemistry, including protection from corrosion;
- Emergency response system and civil protection;
- Personnel training and preparation;
- Physical protection;
- Metrology.

The basis for incorporation of activities into this integrated plan is:
- the Strategic Programme for the corporate organization development,
- the integrated programme for modernisation and improvement of power unit safety,
- special conditions of temporary regulator permits for power unit operation,
- the list of activities for the improvement of the safety of power units which are under operation in Ukraine, and
- industry level technical decisions and other documents.

The activities from this integrated plan are included into the monthly working plans of departments. The completion of these activities is controlled on the monthly basis. The department heads report on a quarterly basis about the completion of the activities in the integrated plan.

If it is necessary to make changes in the integrated plan, such as extension of the term of the activity completion or cancellation of an activity, then the department which initiates changes requires approval of the Director General.

The department working plans include the following activities:
- Main production and safety indicators
- Personnel development activities
- Development (revision and correction) of documentation
- Improvement of the production activity of the department (separately by laboratories, groups, sections etc)
- Activities identified in the collective contract
- Activities identified in the plans from the corporate organization
- Preparation for autumn-winter and spring-summer periods
- Activities resulting from the outcome of the meeting held by a commission headed by Director General, which reviews the results for the year
- Observance of requirements of statutory and other organizational regulative documentation of Rivne NPP
- Activities in the area of modifications and modernisation
Activities resulting from the reviews by external organizations
Specific areas of department activities
These arrangements support an integrated approach and clear accountability whilst retaining ownership at a functional level. This approach has led to an increase in plan implementation rate and a focus on key activities to support an enhancement in the level of safety and production at Rivne NPP.

Doel, Belgium
Mission Date: 8-25 Mar, 2010

Use of competency grades to measure safety culture and reduce errors due to human behavior

–The plant has developed a set of competency grades to measure safety culture and reduce errors due to human behavior. The competency grades are used to measure the maturity of a team (or an individual) with regard to the use of each of the eight Human Performance tools:
  oSelf management tasks: Situational awareness, Self control & organisation,
  oManagement tasks: Pre-job briefing, Post-job debriefing, External verification and Observation,
  oCommunication & decision tasks: Effective communication, Careful decision making,
  oWork & procedure tasks: Smart use of procedures.

–Every team member was graded for the first time in 2009 following a self assessment exercise carried out by the team leader, his manager and the Human Performance coach. The results of this exercise serve as one of several input sources for the self assessment of all the operational teams. In 2010 this grading is being performed for the second time in order to identify progress and to assist team leaders in proposing concrete personal development plans.

–The above set of competency grades is used to evaluate contractors during their mandatory 4-day training in Nuclear Safety. In 2009, during outages, contractors were evaluated in the field using the same set of competency grades. The results of this evaluation are integrated into the contractor evaluation system. The comparison of the 2009 and 2010 results clearly reveals an increase in the maturity of teams with regard to the use of human performance tools.
**Metzamor, Armenia**  
Mission Date: 16 May-2 Jun., 2011

The plant maintains close cooperation with technical support organizations, research and design organizations in order to maintain design authority and ensure operating experience exchange and benchmarking. In the process of its activity, the plant co-operates with a number of nuclear entities. Historically a close co-operation was established with the Russian Federation design and scientific research organizations and during last years they were added with organizations from such countries like Czech Republic, USA, Slovakia, UK, etc. With the mentioned countries, the projects were established for assessment of safety, planning and implementation of modifications, various analyses, calculations and other types of activities. Good co-operation was established on joint application of collected operation experience, benchmarking with best industry practice and operation improvement by means of mutual support and use of good practice, allowing for decreasing of preparatory period for implementation of safety upgrading activities. As a result of this successful co-operation about eight to ten safety related projects are implemented annually at the plant.

**Seabrook, USA**  
Mission Date: 6-24 Jun., 2011

Use of video communication tool to ensure operational focus on topics such as decision-making and safety. Communication tools at the plant are used to ensure an operational focus on topics such as decision-making and safety. This ensures that members of the team at all levels of the organization understand why decisions on plant operations have been made, and that safety is always the #1 priority in all operational decision-making at the plant. Frequent video messages are produced and posted to the eWeb page in order to be available to plant staff. This method was initiated by plant management to communicate important information on a variety of subjects in a formal manner. Typically, the messages are a few minutes long, conducted as interviews and cover one or more recent events or topics of interest. No teleprompter is used and the host and the person being interviewed simply use small note cards if necessary. Feedback from members of the plant staff has been very positive. Viewers like the informal tone and the ability to watch the messages at the computer on their desk when it is convenient for them. This video format has been used by the Site VP, Plant General Manager, Health and Safety Manager, Engineering Manager, Outage Manager and others. Recent examples of the use of the tool at the plant:  
• Plant General Manager provides the team with an update on valve SI-V-82 safety case, OSART mission and the INPO Maintenance and Technical training accreditation.  
• Plant General Manager interview about the decision making process to take the plant off line over the weekend of June 4, 2011 to conduct repairs on the secondary side of the plant.  
• Design Engineering Manager provides details of the condition called Alkali-Silica Reaction discovered on the wall section of the B electrical tunnel.  
• Plant General Manager talks about closing the breaker on outage 14 and getting the plant back online.
Communications are organized systematically at Koeberg to link the national stakeholder engagement and communication strategy and plan, to the Koeberg communication strategy.

The Internal Communication strategy is to ensure open, effective, efficient and transparent communication all the time, allowing its use as a leadership tool, to keep the staff informed, consulted, engaged, led, empowered, energized, to play their role in making the plant safe for employees as well as public.

Mechanisms
• Safety themes for all publications in every month
• Specific communications from work unit, project, event leaders
• Communication liaisons in internal groups to guide, plan, direct and coordinate their communication needs
• Projects managers / leaders take the lead in getting their needs incorporated in the internal communication main stream
• Large number of posters displayed in the plant at relevant locations.
• Daily monitoring of media (local, national, international) focus on nuclear industry and station specific coverage), shared with key station personnel.
• Charismatic Master of Ceremony (MC) are appointed for an event / forum / breakaway etc.
• Communication is also linked to key Calendar dates / events / holidays including those relevant to nuclear industry
• Competitions, quizzes are also used to get messages across

Specific internal publications
• Core magazines: Events, key articles to meet monthly objectives
• Nuclear News: Important news covering every / majority of all nuclear employees in the utility e.g. major events, leadership direction / changes etc
• Captains Log: Special communication from the PSM covering plant important specific information e.g. outage focus, nuclear safety message across lines, station leadership direction etc
• BUF Bulletin – Labour magazine covering all the labour management decisions and negotiations on monthly basis
• News flash: Daily notices, key information, events summary, training dates, station performance snapshot, key training dates, birthdays & deaths of co-employees and family members, key short messages etc
• Blogs: Outage blog, during normal operation Power Station Manager (PSM) blog, Chief Executive (CE) blog etc
• Website: covering Nuclear operating Unit departmental, sections, groups, projects, key events, nuclear emergency plan, Key station events, displays pictures of employees performing critical tasks, key events information etc,
• Station key access point: Handouts containing key station information, usually by station senior managers accompanied by entertainment group to highlight the information. Dress code of managers is associated with the type of message delivered.
• Departmental Work teams sessions: Once a month.
• Breakaways – strategic review sessions and refocusing sessions

Communication with the Public
• Monthly press briefing
• Quarterly public forum, chaired by an eminent person appointed by the Regulator, includes press, local authorities, national political personalities, public (invited to join).
• Articles in the local / international press
• Occasional Radio / TV Programs with guests from Koeberg
• Special programs, debates, competitions in schools
• Visits to the plant by special groups, mainly schools

Management of Communications
• Effectiveness of Internal communication is reviewed every day, week, month, 6 months and yearly,
• Feedback from internal stakeholders through quizzes, feedback requests, surveys, communication briefs, review slips.
• Communication committee meets bi-weekly to review and plan the process and strategy with management feedback.
Communication concept and means used to inform plant personnel.

The plant has a concept for fast and broad communication to the entire plant staff. The plant also has an on-going development of this concept. Quarterly assessments by the plant management ensure that these communication tools are implemented in the best way.

- The management holds monthly Staff information meetings "Pinf" where senior plant management addresses different topics. Examples are: Follow up on plant operation, follow up on plant goals and targets, information on outage activities, information on external events and other topics that might be of general interest or which might affect the plant. The meetings are organized in the plant restaurant and are attended by most plant staff, although presence is not mandatory. Extra meetings are held to inform if there are upcoming issues of general interest. Procedures are in place to enable a short-notice assembly. All Pinf presentations, including an audio recording, are uploaded onto the plant's intranet within 24 hours.
- Every Monday, following the operations meeting where plant management and all departments and groups are represented, there is a lecture series dedicated to safety "Five minutes for safety". The purpose is to have an effective way of internal experience exchange on safety. Topics may concern nuclear safety, safety culture or industrial safety. There are guidelines and personal support available to help prepare the presentations. Afterwards, these presentations are posted onto the KKM-Intranet for all staff to see.
- The plant intranet is used for different types of information to and communication with plant personnel, for example: Quarterly follow up on plant targets, a Q&A (questions and answers) section were plant personnel can get feedback on questions and an open discussion forum.
- There is an "anonymous mailbox" for all plant staff to anonymously report their concerns to plant management.
- For urgent issues, the plant manager sends an e-mail to all personnel.
- Up to date safety information is presented on screens in the plant.
- A senior management blog has been used on some occasions, for example during the outage.
- A black board with all relevant and up-to-date plant information is maintained next to the entrance of the plant. All employees have to pass by this board on their way to work.

Benefit:
Plant personnel has up to date information on relevant topics and safety related issues and there are, in addition to the communication within the responsibility lines, several ways for information and communication that can be accessed and used by all plant staff.
Development of a pocket-sized aid to determine time frames for modular work planning and scheduling (on-line-wheel).

Work planning aims to guarantee optimal schedule reliability and ensure plant safety in line with lines of defense. The Gravelines on-line team has developed an easy-to-use scheduling aid for time-sensitive activity steps. Using this tool, work-planners in the different departments can clearly identify the sequence of each of their activities. The tool offers the following advantages:

– Quick reminder of expectations
– Easy scheduling of activities
– Proactive transmission of work packages
– Schedule reliability
– Proactive management of requests for support services
– Smooth anticipation of technical specification related LCOs
– Improved safety profits to a reliable schedule.

Results have demonstrated an increased number of work packages transferred 8 weeks ahead of time and improved schedule reliability in the second half of the year compared to the first half year.

Information document on plant’s performance and emergent issues.

The plant uses an information document with details of the plant’s performance and emergent issues, which is sent once a month to the first line managers and they in turn, keep their staff informed.

Efficient top down communication is essential to keep the staff aware of important ongoing activities and to make them feel part of the organization.

The information document KIT R’FLEX provides information on station results in the areas of nuclear safety, production, industrial safety, environmental safety, radiation protection, human resources and financial performance. These topics are complemented with a new item of general and current interest. The document is made up of eight pages with associated comments.

First line managers use this information for briefing their teams in a consistent and structured manner.

The benefit of this document is to promote management alignment by facilitating dissemination of a common message to the whole workforce and to ensure consistency of messages conveyed by management. Timely, consistent and comprehensive information makes the workforce feel part of the organization and promotes ownership of individuals in the plant.

The first line managers appreciate this information transfer and valued it as a good tool to support them in briefing their teams.
CPS has implemented a forward looking approach to the demographic challenges facing the station by deploying a comprehensive approach to knowledge transfer and retention. This approach includes an assessment of risk arising from the likelihood that members of staff will leave the organization, the level of knowledge that would be lost from the station and the significance of that loss to continued safe operation. The risk assessment data is used in plans for recruitment, training and budgeting. Personnel are hired in advance of anticipated departures to give sufficient time for new hires to be trained and gain experience in areas of vulnerability. The forward looking nature of this allows the station to use college partnerships, intern programmes and targeted external recruitment to attract candidates of the required quality. The Exelon organization recognizes the strategic value of advanced hiring in terms of station salary budgets. The station training organization is fully engaged with the knowledge transfer and retention process. The various training committees incorporate the advanced hiring programmes when identifying and scheduling training needs to that adequate numbers of qualified individuals are available to support station activities. Rotating experienced line personnel through the training function is beneficial in maintaining recent plant knowledge in the instructor workforce and capturing this in training materials. This also helps ensure adequate instructor resource. Training demands are optimized by evaluating new employees soon after hiring for qualification equivalency to avoid unnecessary duplication of previous training. Training and line supervisors are engaged in approving these exemptions. The station has partnered with the corporate human resources function to agree the behavioural traits the station is seeking as well as the qualifications and experience needs so that candidates have the right attributes to fit the station culture. This results in new hires that ‘hit the ground running’ and gives first line supervisors’ confidence in the process.
Borssele, Netherlands  

Process maturity model for monitoring the progress and improvement of the integrated management system. EPZ has developed a process maturity model. Its main purpose is to make communication about the status of a (complex) Integrated Management System (IMS) easy and to help process owners and management improve the management system. The maturity model is a powerful tool because:

- It serves as a common reference for talking about processes, which makes communication about the status of the IMS easier.
- It helps to create awareness about the gaps within the IMS.
- It shows which aspects of a process need the most improvement.
- It stimulates process ownership.
- It helps to make objectives SMART and to make progress visible.

The model is based on six areas that are key for any process: Process ownership, process performance, process risk control, compliance, process structure and process execution. For each area the maturity level is determined periodically. Characteristics of the levels are:

1. not present,
2. activities are only done when necessary,
3. activities are done but not organized as a process,
4. the process is well organized and executed,
5. pro-active behaviour and continuous improvement are normal.

In December 2012 two internal auditors assessed twenty processes. The average maturity level of the assessed processes was 3.1. This was communicated to the senior and middle management and created the awareness and sense of urgency which was required for starting the IMS improvement project that is currently on-going. Now the maturity of a process is assessed during the execution of internal audits and the progress is monitored and reported by the Quality Assurance Department. Currently the average process maturity level (same processes as in 2012) has increased to 3.3. The best example of a single process improvement is the ICT process: 2.2 (Dec. 2012), 2.5 (Sept. 2013) and 3.6 (July 2014).

Flamanville, France  

Dedicated field team

The plant has a dedicated field team, EDT, consisting of four managers at different organizational levels that, within one week, will spend two full days in the field, observing activities and correcting behaviour that is not aligned with management expectations. This task rotates between managers and is seen as complementary to the line managers being present in the field supporting their staff as part of their job. The team writes a report that is presented to management. The dedicated field team is an effective communication tool for reinforcing management expectations to the line workers and provides management feedback from the field. This process contributes to cross-functional organisational learning.