OSART Good Practices
EMERGENCY PREPAREDNESS AND RESPONSE
Emergency response

Loviisa, Finland

Mission Date; 5-21 Mar., 2007

Estimated accidental release analysis programme "SaTu" including plant premises.

The plant use an analysis programme, named"SaTu" support the on and off-site emergency organizations to estimate accidental releases in advance and the recommendations for protective actions can be estimated based on averted dose. The accessibility of the plant locations (containment, reactor building and other plant rooms) and potential needs for improving radiation shielding can be studied by SaTu. With SaTu system it is possible to give a first estimate after starting the event for 2 hours. When it is activated it continuously maintains and completes the estimate. By using SaTu the accident scenario for exercises are more comprehensive and realistic.

Fortum Nuclear Service (FNS) has developed the "SaTu" system in 2002. In cooperation with the plant, FNS has implemented this system. People have been trained in FNS group and the plant emergency organization to use this system during accidents with radiation release. The main goal of this system is to assess and forecast the release and transportation of ionized materials during accident situations.

The assessment is based on plant process, safety, ventilation and containment system status. The "SaTu" system calculates the radionuclide concentrations in the plant and the releases to the atmosphere. It calculates also the radiation levels in different locations in the plant. The estimates of source term can be recalculated based on plant safety system status and actual radiation level measurements.

The "SaTu" system has been made to use in the emergency plan for make prognoses accidental releases, plant design in assessing the need for radiation shielding for accident situations. It is also made for emergency exercises creating accident scenarios and to use in training radiation specialists to understand and evaluate the behavior of radioactive materials in accidents situations.

This system is very useful to analyze on and off-site emergency situations with radiation releases to take protective actions.

Tihange, Belgium

Mission Date; 7-23 May, 2007

Several means are used by the site to optimize the time in emergency response.

- To ensure rapid access of emergency personnel to the site, when access is limited, specific coloured stickers have been developed and distributed for all vehicles of persons having a role in case of emergency and thus being authorized to enter the site. These coloured stickers also mention the vehicle number plate and are labeled "PUI" (Internal Emergency Plan). The colour of the sticker changes every year. There is an agreement that a specimen of the PUI sticker is sent to the authorities managing traffic in the event of a limited access zone being set up. As well as allowing entrance to the plant, the stickers enables police on roadblocks to identify emergency plan personnel and allow them to pass through. These sticks represents less then 10 % of the distributed stickers.
- If off-site emergency services have to come on site, the meeting points for emergency response teams are defined, signposted on the site and indicated on a plan provided by guards when each emergency service vehicle (fire brigade, ambulances) comes on site. Firstly, a blue flashing light system is activated from the control room to guide the fire department to the affected unit. There are 7 flashing lights on site. In order to ensure that emergency services arrive rapidly at the accident location, a member of the first response team rolls out a tape from the meeting points to actual location of accident. A tape is available in a box at each "relais EPI" (first response meeting point).
- As a result of feedback from EPP exercises, a need for a short document on immediate response management was expressed. Therefore the plant decided to draw up immediate response sheets for each role in the emergency plan on call system. These sheets are in a standardized credit-card sized format and fit easily into a pocket.

  Thanks to these immediate response sheets every role in the emergency plan has all the required information for the immediate actions required in the event of an emergency.

  The front side of the document is generic, while the back is specific to each role. Reference is made to the emergency plan. Accordingly to each type of event immediate response sheets contains following data:
  - Phone, fax and cell phone numbers of contact persons;
  - Summarized description of the roles and responsibilities of that respective individual;
  - Proper reflex sheet, good practices and immediate actions to perform;
  - Sequence in emergency deployment rooms, locations of actors and identification of information flows.

There are similar immediate response sheets for emergency functions at corporate level.

These various improvements optimize time in an emergency response. They ensure that site emergency personnel are able to get on to the plant rapidly and have all the information and instructions for initial actions available in a user-friendly form. They likewise ensure that the off-site emergency services can rapidly reach the location of the accident.

Forsmark, Sweden

Mission Date; 12-28 Feb., 2008

The plant has developed a tool that identifies strategies for solving technical problems during a nuclear emergency. This tool is the Technical Handbook for Plant Operational Manager – Technisk Handbok for Anlaggningsledare (THAL).

Using this tool, the Plant Operational Manager (AL) presents the Site Emergency Director (OL) with an assessment of the feasibility, data needs, resources, and expected results for solving technical problems that are not covered by General Disturbance Procedures. This high level view of the management of technical issues during an accident is unique in the Team's opinion.

Instead of entering directly into Severe Accident Management Guidelines (SAMG), the tool gives management-level guidance on what is needed to solve the problem, who can help and what tools can they use. The THAL does not replace the SAMG, which are used by a separate group of engineering and safety analysis specialists. The THAL explains when to start the SAMG analysis and what to expect from the group of specialists.

The THAL takes the approach that in order to be able to make decisions during a severe accident, different alternative strategies need to be considered. The THAL is a knowledge based handbook where such strategies are described, along with other essential information. The THAL also identifies the short term actions that are important for long term accident management. The THAL is organized by issues such as

- Short term actions (minimizing the spread of radioactivity, core damage assessment, reactor vessel integrity assessment, etc…)
- Long term actions (containment pH adjustment, measuring activity and chemical parameters in the containment, hydrogen control, etc…)
- Instrumentation available in the containment
- Radiological environment (habitability)
- Personal safety measures
- Alternatives for electrical supply
- Communication means
- List of mobile equipment available in the region (pumps, generators, etc…)
- Operation at non affected reactor units
- Process systems relation

Each issue is covered in a dedicated section that contains

- Info
- Strategy
- References

Using the THAL manual, the Plant Operational Manager (AL) can provide the Site Emergency Director (EL) with a very good overview of the decisions he may have to make during the emergency.

Cruas, France

Mission Date; 24 Nov.-11 Dec., 2008

The availability of a dedicated emergency response mobile command post and response team equipment vehicle (PCOM van) results in more rapid and effective response to emergencies on-site, as well as more efficient coordination between on-site and off-site responders.

- First and Second level emergency response teams, as well as the Head of Rescue (EDF) and the Commander of Rescue Operations (Local Fire Service), are situated close to the event in a protected, mobile location. This provides for ease of communication and coordination of the response.
- The PCOM van is intended for use during on-site fire, medical, and radiological emergencies.
- The emergency team's response time is shortened since they can equip themselves for the emergency in the PCOM van close to the emergency location.
- Eliminates the need for response teams to transit on foot in heavy protective gear to reach the site of the emergency.
- The reduction in response time should reduce both the risk to the personnel as well as potential damage to plant equipment.
- The van is tested weekly for operability/availability, and maintenance responsibilities are established.

Oskarshamn, Sweden

Mission Date; 16 Feb.-5 Mar., 2009

Communication between the on duty emergency planning and preparedness staff by cellular phone.

Management and plant staff members are issued company cellular phones used on the network of a cell phone operator in Sweden, which when entering the plant automatically operate at a lower intensity of electromagnetic power in order to avoid plant systems interferences and disturbances. The mobile phones are used in all spheres of the plants activities and in the case of an emergency the systems allows a zero delay and efficient means to relay emergency messages to standby persons at any location on and off-site. The system allows prompt mobilization of resources during classification and notification of an emergency as well as continuous updating and exchanging of information with support functions for emergency decision makers. The use of mobile phones in emergency communication enables the plant public announcement system to be dedicated for important messages for the protection of persons on site. In the case of an emergency it is also possible to allow the use of private phones on site if necessary.

The use of cellular phones in drills and exercises has shown that the plant is able to notify, classify and activate its emergency facilities in normal and outside normal working hours in a timely manner. It was also used to good effect during a Staff Alert at the plant in 2008, and the network proved to have sufficient capacity to handle the situation.

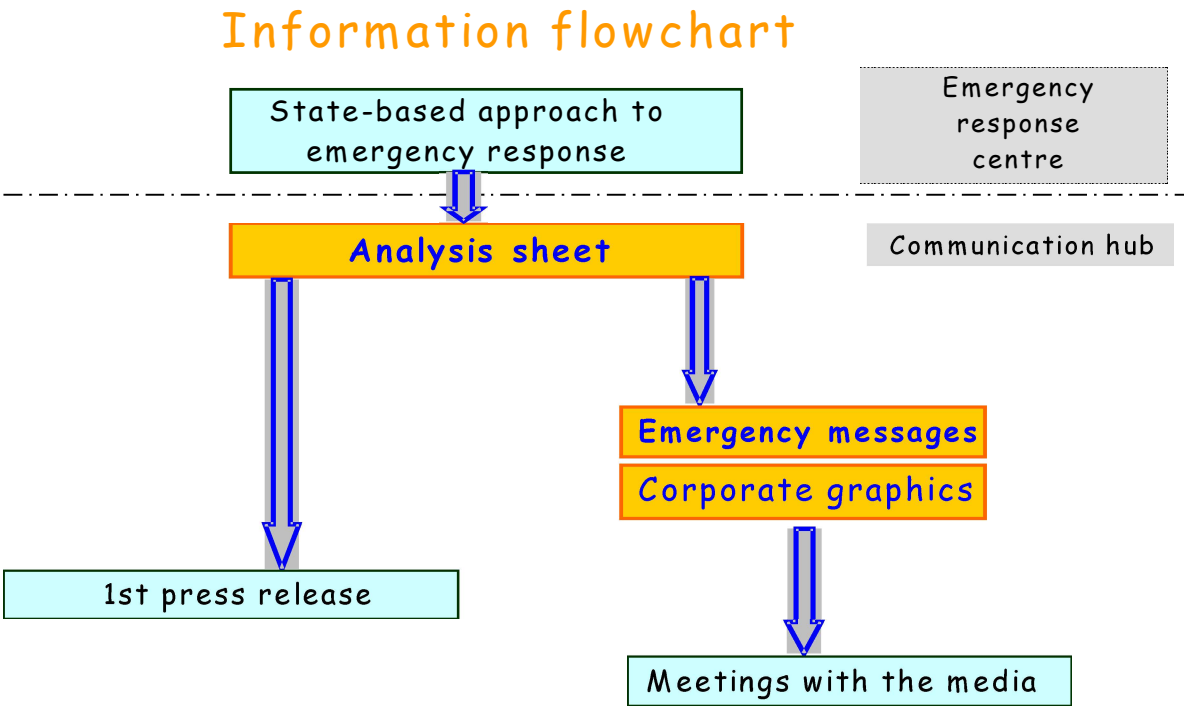
In case of a breakdown of the national cell phone network which is part of the global net, the indoor antenna system for communication radio TETRA, using digital radio technology will be utilized. TETRA has an eight hour UPS battery backup. In addition to TETRA the plant also has a blue-light-authority 80 MHz radio system and a new digital RAKEL radio system. All indoor antennas are connected to two outdoor antennas which are a backup of each other, and should this fail, direct communication with the handheld radios is still possible.

Fessenheim, France

Mission Date; 23 Mar.-8 Apr., 2009

Aids to Local Communication Command Post

The plant has developed tools to help staff from the communication command post to prepare the first communication messages and press meetings, as well as to respond serenely to telephone or face to face media communication.



This consists of the following elements:

A) Analysis Sheet:
The communication command post uses an analysis sheet which rapidly decodes the event and describes it in a reliable manner.

This provides the head of the communication command post with data and documents on the nature of the event and with key emergency messages.

B) Key Emergency Messages:
An emergency message is planned for each type of emergency event.

The emergency message is used by the head of the communication command post and the site spokesperson in preparing for their meetings with the press.

Each one contains:

- 1 introductory sheet (key aspects: human, environmental, technical),
- 4 sheets : « what has happened»; «protective measures»; «consequences » and «actions taken »,
- Prompts for the most likely questions.

Each message identifies the slides that can be used for media purposes. Those slides are provided by corporate communication services (used by all EDF communications functions).

C) Template for First Press Release:

Approved templates provide speed (within one hour after the command station has been set up) and guarantee the factual accuracy of the first press release.

A template for the first press release is planned for each key emergency message.

Once the event has been diagnosed using the analysis sheet, the head of the communication command post selects the appropriate template, fills it in, has it checked and then issues the release.

D) Media response pack (based on OEF):
These documents help the person in charge of telephone communication and the person in charge of face to face contact with media to better handle media attention.

The document provides clear and polite responses to be used for any impatient questioning by journalists.

These sheets have been drafted in response to needs identified during communication-specific EPP exercises.

Plant results demonstrate that this practice produces the expected results and press releases issued during EPP exercises are published within the required time frame.

Ling Ao 3/4, China

Mission Date; 16 Nov.-3 Dec., 2009

A comprehensive emergency plan for unexpected events has been formulated, in which 17 unexpected events have been taken into consideration. Some of them are far beyond the normal level of contingency plans in nuclear power plants.

Seventeen sub-plans have been formulated accordingly to respond to such unexpected events as environmental pollution, food poisoning, public hygiene, infectious diseases, gang events, typhoon, geological disaster, oceanic disaster and traffic accidents.

For all these events, specific exercises are performed in a regular way. In addition, this emergency plan integrated with municipal emergency response organization from which DNMC will seek assistance whenever necessary.

Precautious measures for e.g. food poisoning provided to keep plant staff, operation personnel in particular, harmless from those unexpected events in order to ensure the safety of plant personnel and the plants property.

Cattenom, France

Mission Date; 14 Nov.-1 Dec., 2011

Robust, diversified and redundant telecommunication means deployed in the various on-site emergency response facilities.

The on-site emergency response facilities are equipped with various telecommunication means. These are redundant and diversified in order to guarantee the availability of communication channels needed to communicate the required decisions or recommendations and to communicate with the off-site authorities.

These telecommunication means are:

- Wired channels
  - normal ("PUI Site") and secure ("PUI Sûreté") site networks
  - direct external lines ("PUI SATS" (Services d'audioconférences et de télécopies sécurisés, Audioconference and fax secured services) & "PUI Extérieur")
  - intercom between emergency facilities ("PUI Interphonie")

- Radio communications
  - wireless phones (Digital Enhanced Cordless Telephone, DECT)
  - TETRA radios (PUI TETRA)
  - Pagers

- Satellite means (PUI Satellite)
  - INMARSAT
  - IRRIDIUM
  - SELCA (Système d'Echanges Local Cattenom-Autorités, local system for exchanges between Cattenom and authorities) used for alerting and information exchange with Luxembourg and Germany
  - VSAT

- These means are located in the different emergency facilities of the site:
- On-site Emergency Centre (BDS)
- On-site Technical Support Centre (ELC)
- Main Control Room
- Assembly points inside the buildings
- Gathering rooms for the rescuers (PRS)
- Fallback centre
- Media centre
- Medical service
- Security post (PCP)

The VSAT satellite system installed at the Cattenom NPP forms a fully independent network between on-site emergency facilities and the EDF national support allowing communication among the emergency facilities even in the case of a total isolation of the site.

Each of these "PUI" telecommunication means is identified by a specific colour sticker facilitating their identification and category. In addition, each emergency response function have at their disposal an information booklet, called MEMOTEC (MEmento des MOyens de TElécommunication de Crise, Memento of crisis communication means), giving practical indications on each telecommunication means (who am I?, identification/visualisation of the connections…).

Hongyanhe, China

Mission Date; 6-23 Feb., 2012

Computerized emergency decision support system.

This is a system to support decision making for protective actions both on-site and off-site.

This system enables the plant to decide proper protective actions on-site and make suggestions to the off-site authorities about protective actions in a timely manner. This includes the following:

- User-friendly interface, simplified input process for users, improving the working effectiveness of response staff.
- Quick identification of site specific default operational intervention levels (OILs) from pre-calculated OILs in accordance with the type of accident and the meteorological conditions.
- Environment monitoring data and meteorological data can be input automatically, saved, managed and can be directly used for the further revision of OILs.
- After revising the OILs based on the environment monitoring data, the emergency protective action suggestions of each area can be directly displayed on the map.
- Report formats to national emergency head quarters and other off-site relevant organizations can be automatically produced, including environment monitoring report formats and protective action suggestion report formats.
- This system had been tested comprehensively and the availability and efficiency was already proved.

Chooz, France

Mission Date; 17 Jun.-4 Jul., 2013

Immersions to build a strong relationship between the on-shift response team of the plant and the fire brigade.

In addition to visits to the plant by the fire-fighters in order to identify access points and the main fire risks, the plant has implemented a programme of exchanges in order to build a strong relationship between on-site and off-site response teams. This exchange provides instruction based on extensive exposure to the surroundings and conditions present at the plant. The main objective of the programme is to improve the efficiency of fire fighting and rescue operations.

These exchanges are organised as follow:

- A fire brigade officer spends three days of immersion training with an on-site shift team. The first two days are devoted to shadowing the team in its daily work. The third day is based on discussions with the on-shift designated individual for first response. It also includes the preparation, observation and feedback on an exercise with the response team. These training activities improve the knowledge of the plant and its risks for the fire-fighters.

- Each on-shift designated individual for first response spends one or two days at the fire station. These days are devoted to visiting and presenting the facilities of the fire brigade (command centre, call centre, response centre, etc.). The on-shift designated individual for first response also discusses with his counterparts maximum credible fire scenarios on the site of Chooz and how to tackle them. These activities improve the professional development of the designated individual for first response.

Advantages and benefits:

- Building a strong relationship between the fire brigade officers and the on-shift designated individual for first response

- Improved understanding of what is expected of the on-shift designated individual for first response and fire fighters during a fire.

- Better understanding of priority actions for the on-shift designated individual for first response concerning the appropriate response to a maximum credible scenarios (for example, main transformer fire).

- Better understanding in the changes to the on-site emergency plan (for example, presentation to the fire-fighters of corrective actions implemented after the update of the fire protection technical basis in 2010).

Kashiwazaki 6/7, Japan

Mission Date; 29 Jun.-13 Jul., 2015

Common situational awareness enhancement tools

The operating organization of Kashiwazaki-Kariwa Nuclear Power Station has introduced an innovative system that could greatly alleviate the risk associated with different response organisations having different and incomplete awareness of plant status and response during an emergency.

The coordination of technical and operational information is harmonized and synchronized through an information management system consisting of the Common Operational Picture (COP) web-based platform and the common CHAT communications web-based platform, which capture up-to-date information about plant status, emergency actions and major decisions. He COP and CHAT information is shared between all operational organizations, including the station, the municipal and prefecture authorities, TEPCO headquarters and the Nuclear Regulatory Agency.

This greatly enhances the overall situational awareness of all organizations involved in the emergency response. It allows them to perform a consistent assessment, to communicate consistent information and to take consistent actions.

This system has proven very effective in exercises.

Chashma1, Pakistan

Mission Date; 23 Nov.-10 Dec., 2015

The Plant owns a fully equipped Personnel Decontamination Facility, staffed 24 hours a day and 7 days a week all through the year for cases of injury and radioactive contamination.

The availability of a decontamination facility on a NPP is an essential requirement especially for the radiation workers who routinely work at the plant site. The plant has established a fully equipped and specialized Personnel Decontamination Facility (PDCF) at Pakistan Atomic Energy Commission (PAEC) Hospital, located near the plant. The major function of this facility is to provide medical treatment and decontamination for patients either from NPPs or any other radiological incident events.

The facility has four medical teams, each includes doctors, nurses and two health physicists; it is also equipped with four ambulances and two diesel generators. The material inventory includes provisions for the staff and injured personnel – KI pills, combined filters and full face masks, respirators, thermo luminescent dosimeter (TLD), electronic personnel dosimeter (EPD), special protective clothing, protective shoes, gloves and hats.

The personnel at this facility are able to handle six patients simultaneously. A special entrance is arranged for reception of injured or contaminated workers, then a decontamination room, surgery room, cardiology room, observation room, and two more rooms for decontamination with four hyperbaric chambers. Contaminated fluids are collected in dedicated decay tanks and then transferred by using pumps connected to the power plant for further processing.

This facility can provide timely treatment and effective decontamination of injured personnel.

Pickering, Canada

Mission Date; 19 Sep. -6 Oct, 2016

The Potassium Iodide (KI) Pill Distribution Campaign was proactively organized and, will ensure new residents who move to the primary zone of the plant will continue to be included in the distribution.

In 2015, the plant, in a proactive partnership with off-site authorities completed, a KI distribution campaign which includes positive public awareness benefits and a sustaining program to ensure new residents who move into the zone are provided with the KI pills and information.

The plant campaign began in January 2015 with the first focus groups established in the primary zones. The intention was for focus groups to know about KI pills and emergency planning, but mainly about what they would think if a box of radiation-blocking pills suddenly landed on their doorsteps.

Results obtained from the focus groups helped to form the basis of a two-part communications strategy for pre-distribution and distribution campaigns. Pre-distribution was a focused and intensive education campaign that raised public awareness of KI distribution by explaining why it is taking place, and what it means. The distribution campaign utilized product packaging to improve the public's understanding of when and how to use the KI pills.

The KI packages were sized to easily fit in medicine cabinets, with frequently asked questions and user instructions printed on the front. All of the information and the pills are in one easy-to-read package.

Pre-distribution took place from 4 September 2015 to 1 October 2015. It included a letter to all homes and businesses, newspaper and out-of-home advertising, a targeted Twitter campaign, a traditional media and social media outreach and an independent website (www.preparetobesafe.ca).

Then, the distribution of an over-packaging (uniquely coloured packaging) took place in October 2015. It was supported by ongoing advertising, an enhanced website, a social media

campaign and community information sessions. The public information campaign also included ‘open house’ sessions for residents

A sustainability program was also set. Public access continues to be available through requests to a dedicated website and public information sessions continue. Moreover, the plant has set a specific agreement with Canada Post so that ‘New Neighbours’ are identified 3 times per years by the postal service and provided information packages including residential KI distribution.

Torness, UK

Mission Date; 22 Jan. - 8 Feb, 2018

Beta Hood - Protection of emergency responders from skin contact to radioactive water.

During an emergency radiation event, responders could be exposed to contamination water runoff. In a normal fire kit of flash hood and tunic, this water can run down into the clothing and rest on the skin of the responders. Any beta contamination within the water will then irradiate the skin and cause harm to the responder. Due to this the station has utilized a Beta Hood that improves on the normal flash hood and provides protection to the responders. It adds a covering to the shoulders of the responders that is incorporated into the hooded protection for the face. The benefit is that any possibly contaminated water runs down and off the responders, rather than inside the protective clothing and putting them at risk.

Belarusian, Belarus

Mission Date; 5-22 Aug., 2019

The fire station at the plant includes a shelter for 60 people.

The fire station has its own protected facility, with the same level of protection as the plant's emergency response center and shelters for other on-site personnel.

Ventilation modes include filtered air intake and recirculation mode with air regeneration (i.e. complete isolation mode).

The facility has an air lock, provisions for decontamination and medical care, its own potable water well, emergency diesel generator, food and drink for 5 days, radiation monitoring and places to rest.

The protective structure is seismic-resistant.

This facility allows the fire station to be fully manned and operational, even in situations with airborne radioactive substances or toxic gasses. Equipped with appropriate PPE's, available in the shelter, the firefighting capability of the station in emergency conditions is ensured.

Belarusian, Belarus

Mission Date; 5-22 Aug., 2019

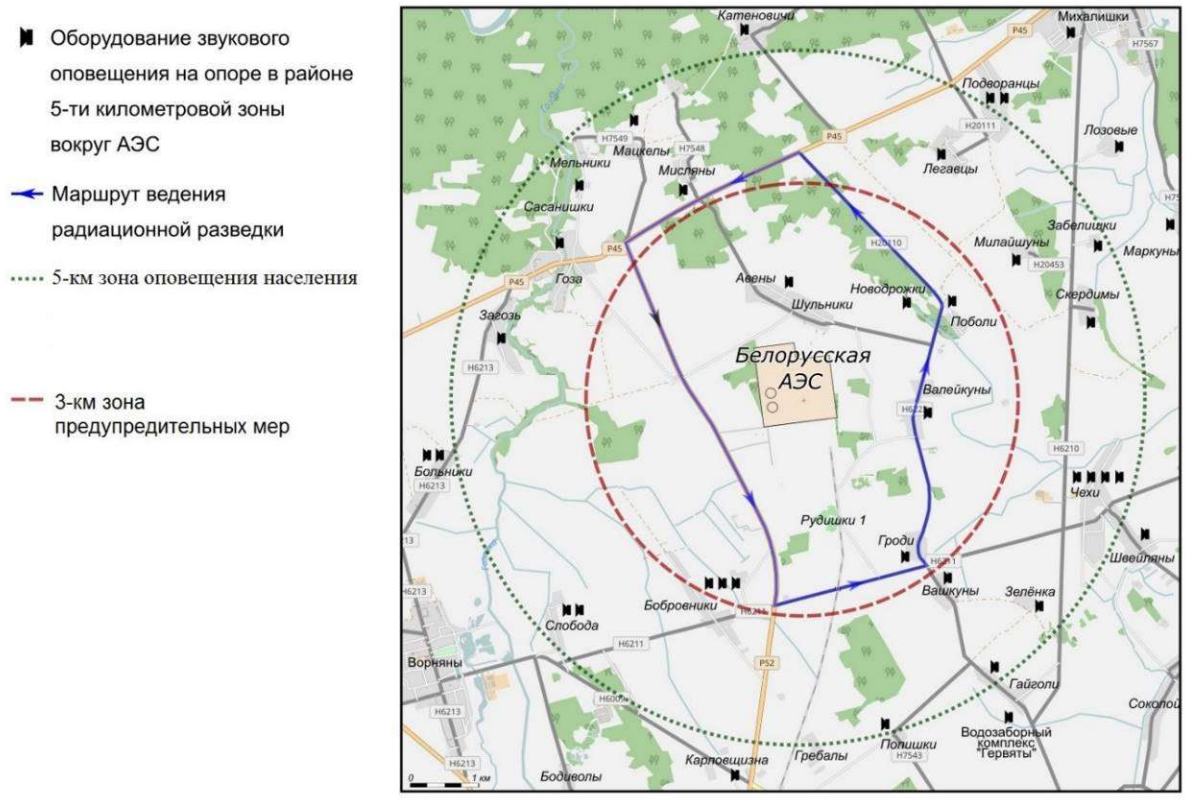
System to notify and inform population in an emergency

The population within a 5 km radius around the NPP is notified with the use of an automated alarm and information system. Dedicated alarm posts with speakers capable of sounding both an alarm signal (siren) and verbal information (direction of evacuation, taking iodine prophylaxes, etc.) are located in each settlement within this zone. The system can be controlled from the NPP electrical equipment control room, the on-site Emergency Response Centre and the backup Emergency Response Centre in the nearby town of Ostrovets.

Alarm posts can be addressed simultaneously or individually.

The time to provide this information is minimal and it does not require people to use a radio or television, or any other action to obtain necessary information.

This system does not rely on external power, sufficient for two days in standby or one hour continuous sound, as each alarm posts is equipped with a storage battery and a radio receiver.



The advantages of this alarm and information system has proven itself in a large scale exercise (2017) where the population was informed to use their emergency kits and to evacuate (not simulated).

Paluel, France

Mission Date; 20 Sep.-7 Oct., 2021

Silent monitoring of emergency calls

When a person at the plant detects an event that requires emergency intervention (fire, medical emergency or injury), they dial 18 to reach the main control room of the unit. This call also rings the nurse on duty at the medical center and simultaneously lights up an indicator on the wall that shows from which unit the call originated. The nurse listens silently to the call and determines if it is a medical emergency, in which case he/she will immediately go to the unit to give first aid to the victim. Meanwhile, the control room calls the off-site medical responders to request assistance on site.

Benefit: By monitoring the emergency calls to the main control room, the nurse on duty minimizes the delay for assistance to the victims. In those instances where intervention is required promptly, this can save lives.

Tricastin, France

Mission Date; 28 Nov. -15 Dec., 2022

Differential pressure gauge indicating the pressure difference between inner and outer spaces mounted on the entrance door.

Purpose:
Each room or building during radiological event shall be equipped with equipment or tools for differential pressure measurement.

Description:
The indication of the pressure difference between inner and outer spaces during radiological events is very important to ensure safe sheltering. This equipment mounted at entrance doors can immediately indicate the pressure difference and it does not depend on availability of power supply.

Benefits:

- Easy implementation
- Clear information
- Facilitates decision making
- Applicable to any place, where operation of large machinery may create overpressure in case of an emergency.

Bohunice, Slovakia

Mission Date; 6 – 23 Nov., 2023

The plant has developed unique monitoring tools used to perform early classification and notification.
The “Radiological Forecast Application” (ESTE) is online the client – server computer system for Emergency response organization for both units of plant. The ESTE consists of several modules (classification, radiological, meteorological, etc.) and is used for on-line early classification of emergency events, including automatic reporting of the recommended public protection measures.

It is designed for:

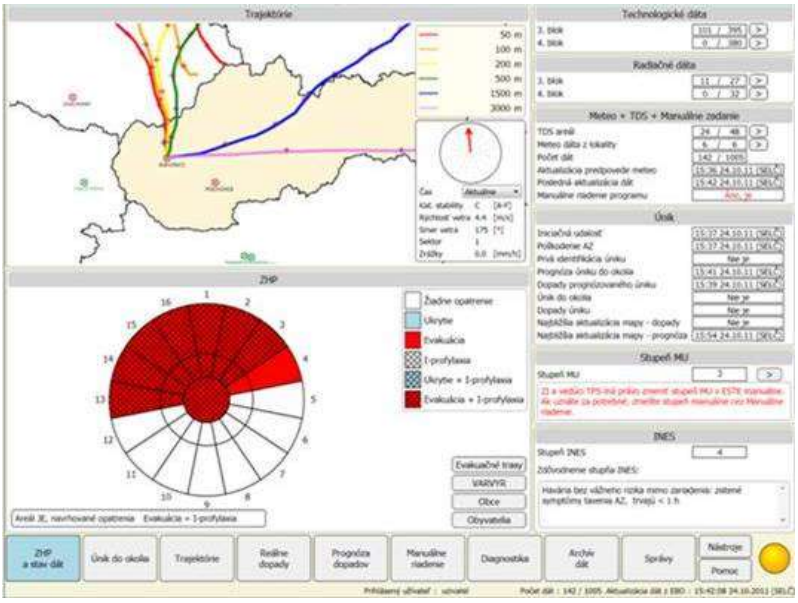
- On-line monitoring of the plant status and can analyze technological, radiation and meteorological data,
- Early classification of events according to their severity (from real time data as well as from previously analyzed events contained in a data library),
- On-line determination of the source terms and adequate prognoses of radiological releases,
- On-line proposal of protective measures for plant personnel and the residents in Emergency Planning Zones,
- Calculation of real release and predictive (expected) release impacts,
- Generating maps of real time release impacts for designated radiation thresholds for the site and its surroundings,
- Display of graphical on-line parameters with the possibility of binning them into groups,
- Automatic message generation and distribution (via e-mail and fax) with basic information about an event, prognosis, and proposal of protective measures in the Emergency Planning Zones to supervision bodies, the required ministries, and authorities in the Emergency Planning Zones.

The ESTE tool works as a client server with redundant servers and multiple clients. This application receives the parameters from the plant systems and radiation monitoring equipment as well as meteorological data for the affected zones surrounding the plant. The meteorological data is obtained from SHMÚ (Slovak Hydrometeorological Institute) for a 72-hour period following the event initiation. This application is available at workstations in the emergency management work positions such as the Main Control Room, the Radiation Monitoring Control Room, the Emergency Control Centre, the Technical Support Centre, the Monitoring Support Centre, and the Back-up Emergency Control Centre. The Emergency Response Centre of Nuclear Regulatory Authority has the read-only access to this classification application .

This application can be used with simulated data (pre-calculated scenarios).

The ESTE application enables easy and early classification and notification of events. The main benefits of the ESTE are:

- Early classification and notification,
- On-line monitoring of NPP status using technological, radiation, and meteorological data,
- Rapid support of decision-making process designed for emergency response management. This includes supporting the Plant Shift supervisor, Emergency director, Technical Support Centre (TSC) and other functions of ERO with determining the event status and event severity classification,
- Online determination of protective measures for plant staff and residents of the Emergency Planning Zones,
- Automatic message generation and distribution (via e-mail and fax) of basic information about an event, prognosis, and proposal of protective measures in the Emergency Planning Zones to supervision bodies, appropriate ministries, and authorities in the Emergency Planning Zones,
- Possibility to use it in the training process since the system supports the use of a pre-planned scenario instead of real data.



Picture 1: Main screen of Classification tool (ESTE)