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Norrænar kjarnöryggisrannsóknir
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Nordisk kjernesikkerhetsforskning
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Nordic nuclear safety research

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Baltic Nuclear workshop
Stockholm March 19 – 20, 2001
Final report

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Nordic Nuclear Safety Research, NKS

May 2001

Abstract

Proceedings of the NKS/BOK-1.6 workshop on crisis communication "Baltic Nuclear", held in Stockholm March 19 – 20, 2001, with participants from the nuclear power plants and nuclear authorities in the Baltic Sea region. The main content of the workshop was founded on the principle of "learning by doing". The participants were therefore practically trained in how to handle a crisis from an information and communication point of view. Added to that there were three different lectures.

Keywords

Emergency plans; Crisis Management; Public relations; Public information;
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BOK-1.6

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Summary

NKS took the initiative to organise a workshop on the subject "Crisis communication". The workshop took place in Lidingö near Stockholm, Sweden on March 19 – 20, 2001. The target group of the workshop was the top-management of the nuclear power plants and the authorities.

The workshop brought together a qualified group of twenty-five representatives from the nuclear community around the Baltic Sea: 3 from Russia, 5 from Lithuania, 14 from Sweden, and 3 from Finland.

The workshop functioned also as a platform to get experiences ahead of the big exercise "Barents Rescue 2001", which is part of the PfP-program, in September 2001.

The work with the realisation of a workshop started in May 2000. The NKS board decided to find out if there were any interest in the nuclear community to make a workshop on the theme "Information and communication during a crisis".

After discussions with representatives from the Swedish nuclear power plants, representatives from some of the authorities in the Nordic countries and Lithuania a preliminary program for a workshop was made. In this the following goals for the workshop was pointed out.

To increase the possibilities of maintaining public confidence in case of a serious event or an accident at a nuclear power plant by

- providing the participants a practical view on how different types of events can be handled
- providing the participants a view on today's massive search of information of different media and how the created pressure can be handled
- giving the participants experiences that can improve their emergency plans
- giving the participants knowledge on how information responsibilities of the authorities and the nuclear power plants vary in the different countries
- creating personal contacts, thereby improving the flow of information in case of an emergency

The main content of the workshop was founded on the principle of "learning by doing". The participants were therefore practically trained in how to handle a crisis from an information and communication point of view. Added to that there were three different lectures in "Crisis Management", "Human Behaviour in Crisis" and "How to handle media in a crisis".

The practical part contained three different exercises:

- An "Action exercise", where the participants were divided into four groups and looked on five short video films, each lasting a couple of minutes and presenting a problem to be solved by the groups. After the video presentations the groups had four minutes to answer a specific question regarding what they have just seen. Each group wrote down its answer. The "Action exercise" ended with a short discussion of the results and what was learned by this exercise

- Two “Simulations”. As background for these simulations two different scenarios were prepared. A scenario consists of a chain of events. These are distributed during the simulation as “triggers” to the Crisis Management Teams (CMT) via telephones, fax and by other means. The simulation- staff plays all the different contacts that the CMT-groups need to or want to get in contact with, such as different members in the plant organisation, the authorities, the media or the public. In this workshop the scenarios were different serious events at the Oskarshamn Nuclear Power Plant. Oskarshamn NPP and a Swedish reality were chosen as a model. A short sum up and discussion about the immediate experiences, what was good and what was not so good, was held after each simulation.

The final session of the workshop was a three hour discussion about what the participants had learned and what they wanted to change in their emergency plans when they got home. A list was made with all these comments and every participant received a copy of this list before they left the seminar.

The workshop showed that there is a real need in the nuclear community of more contacts regarding exchange of information in general and how to organise a good and fast information flow in case of any event in a nuclear power plant, between authorities and nuclear power plants and between nuclear power plants.

Many of the participants stated that there are indeed a need for exchange of information about preparations, planning and training regarding emergency situations. The importance of learning from each other was strongly emphasised.

Some of the participants also wanted that this kind of workshop should be repeated in a couple of years. NKS could have a role in this in the future.

1 Background

NKS identified a need for an exchange of experiences, in the field of information and communication, between the Top-Management of nuclear power plants and the nuclear authorities in the Nordic and Baltic Sea countries.

Therefore NKS took the initiative to organise a workshop on the subject. The workshop took place in Lidingö near Stockholm, Sweden on March 19 – 20, 2001. The target group of the workshop was the Top-Management of the nuclear power plants and the authorities.

NKS stated that the ideal participation from each nuclear power plant was one person from the top-management and one person from the information department, preferably the head of the department, as well as one representative from the nuclear authorities of each participating country.

The workshop brought together a qualified group of twenty-five representatives from the nuclear community around the Baltic Sea.

The workshop could also be seen as a platform to get experiences ahead of the big exercise “Barents Rescue 2001”, which is part of the PFP – program, in September 2001.

There are eight nuclear power plants situated at the Baltic coast or close to it :

- Barsebäck, Sweden
- Forsmark, Sweden
- Ignalina, Lithuania
- Leningrad, Russia
- Loviisa, Finland
- Oskarshamn, Sweden
- Ringhals, Sweden
- TVO, Finland.

In the countries around the Baltic Sea there are the following authorities working with radiological protection and/or reactor safety:

- Statens Strålevern, Norway
- Swedish Radiation Protection Institute
- Swedish Nuclear Inspectorate
- Räddningsverket, Sweden
- Beredskabsstyrelsen, Denmark
- STUK, Finland
- Vatesi, Lithuania
- Radiation Protection Center, Lithuania
- Emergency Response Center, Minatom, St. Petersburg, Russia

These were the primary target group for the workshop and as such invited to the workshop. Also invited was Kola nuclear power plant.

The work with the realisation of a workshop started in May 2000. NKS board decided to find out if there were any interest in the nuclear community to make a workshop on the theme "Information and communication in crisis".

After discussions with representatives from the Swedish nuclear power plants, representatives from some of the authorities in the Nordic countries and Lithuania a preliminary program for a workshop was made.

In this the goals for the workshop was pointed out:

To increase the possibilities of maintaining public confidence in case of a serious event or an accident at a nuclear power plant by

- providing the participants a practical view on how different types of events can be handled
- providing the participants a view on today's massive search of information of different media and how the created pressure can be handled
- giving the participants experiences that can improve their emergency plans
- giving the participants knowledge on how information responsibilities of the authorities and the nuclear power plants vary in the different countries
- creating personal contacts, thereby improving the flow of information in case of an emergency

The contacts with different actors indicated that it was a strong interest in the nuclear community to participate in a workshop on this theme.

The formal invitation to the workshop was distributed in late September 2000, Appendix 1.

The total number of participants was 25: 3 from Russia, 5 from Lithuania, 14 from Sweden, 3 from Finland - a list of participants see Appendix 2 and final program see Appendix 3.

2 Preparations

During the planning of the workshop the first idea was to use the Russian reactor type RMBK as a model for the simulations. During the discussions it became clear that the most effective way to get to the goals was to use a Swedish reactor and to make the simulations out of a Swedish reality. The main reason was that by using a Swedish model for the simulations one of the main factors, which could jeopardise the result of the workshop, was in a better control.

One of the great advantages of choosing a Swedish reactor and Swedish realities for the simulations was that it was easy to get all the documentation that was needed.

The main problem when you try to do something with people from different countries and with different languages, different organisations and different cultures is to find a way to come over this build in obstacles. Most of the participants communicated well in English and that was of course an advantage.

In this workshop we used different ways to handle these problems:

- an "icebreaker", the action exercises which forced the participants to discuss relevant matters and come to a decisions.
- in the planning work, to try to identify potential language problems and have that in mind when the groups were organised.
- two interpreters Russian-English, with special knowledge and experience from the nuclear branch, were available. They worked very pragmatic and were used as special support to participants with language problems during the simulations. During the simulations one interpreter was in the simulations staff and one in the Crisis Management Team (CMT) with most language problems. During the discussions and the lectures the interpreters used cordless equipment. This meant that those who wanted interpretation could pick up an earphone and participate in the discussions with the help of an interpreter.
- in advance, three information letters about the workshop were distributed. One main reason that this information was sent out was that it was very important that the participants had understood what they were going to participate in. Some of the documents needed to make decisions during the simulations were also distributed.
- when the different groups were organised an essential part was to spread the Swedish power plant participants in all the groups. One experienced manager from one of the Swedish nuclear power plants was appointed Plant Operations Manager in each CMT.

In spite of the different background of the participants it was in a way a homogenous group. Almost everyone had a background from the "field" so to speak.

3 The workshop

3.1 A short description

The main content of the workshop was founded on the principle of "learning by doing". The participants were therefore practically trained in how to handle a crisis from an information and communication point of view. Added to that there were three different lectures in Crisis Management, Human Behaviour in Crisis and How to handle media in a crisis.

After a short presentation of the participants and luncheon the participants were divided into four groups. Then five short so-called action-exercises were held. The participants looked on short video films, couple of minutes, each one presents a problem to be solved of the groups. After the video presentations the groups got four minutes to answer a specific question regarding what they have just seen. Each group writes down its answer. After the five videos there was a short discussion of the results and what was learned by this exercise.

The action-exercises functioned very well as a way to get people to be a little bit more acquainted to each other as well as to get the participants "in the mood" of being part of a crisis management team. In addition it was a good way for the staff to see where there were special language problems and to test the work with the interpreters.

The first simulation was in the afternoon-session the first day. It started around 1530 and ended around 1830 and the scenario had 40 "triggers". The second simulation was during the morning -session the second day. It started around 0745 and ended around 1000 and the scenario had 44 "triggers".

For each of the simulations there was a complete scenario, Appendix 4 and 5 and also prepared different plans and documentation that was needed in the CMTs, such as part of the Emergency Plan of Oskarshamn Nuclear Power Plant, to make decisions and so on.

Each scenario consists of a chain of events. These are distributed during the simulation as "triggers" to the CMT -groups via telephones, fax and by other means. The simulation-staff plays all the different contacts that the CMT-groups need to or want to get in contact with such as different members of the plant organisation, the authorities, the media or the public.

In connection with the start up of simulation 1 the groups which were going to act as CMTs got 15 minutes to organise their CMT.

Before dinner the first day the groups that had been chosen to be CMTs for simulation 2 got some background information and was told to make a telephone list for the night. In case something happened. The simulation 2 started earlier than the participants were prepared for. In fact, during breakfast. That meant that they had to start the work in the CMTs rather quickly and they did not have time for organising themselves in advance.

A short sum up and discussion about the immediate experiences, what was good what was not so good, was held after each simulation. A special assessment checklist and score chart was used during these sum ups.

The afternoon session of day two was used for a discussion about the workshop and what was learned and what the most important changes regarding crisis management the participants wanted to do in their own organisations. Each participant noted his/hers three most important knowledge and also the three most important changes. The result of these was presented at the discussion and each participant got a copy of this list before leaving the workshop.

3.2 Organisation at the conference centre

For the simulations it was decided to work with two different CMT in different rooms and a two different simulating staffs but in the same room. The technical facilities consisted of a lot of telephones, one telefax connection from each room and a radio in each of the CMT rooms, with realistic broadcasting co-ordinated with the chain of events, during the simulations, news, interviews with different people such as the chief of police, neighbours, firemen and so on. A professional TV-team was also used to sharpen the realism of the simulations. Everything that was said and done in the CMT was video taped and from monitors in the staff room it was possible to watch the activities in the two CMTs. Each CMT and each simulation-staff had a big map of the site of Oskarshamn NPP as well as a map of the city of Oskarshamn and the surroundings.

The participants were divided into four groups for each simulation two groups acted as CMT and two groups as simulation - staffs.

Each simulation - staff was managed by one person from Nordisk Beredskapsakademi. The team from Nordisk Beredskapsakademi consisted of four persons and one professional TV-photographer.

4 Results, lessons learned

4.1 Target group

The primary target group, as defined by NKS, was the right one both for this workshop and for future co-operation in the nuclear community around the Baltic Sea. Unfortunately there were no participation from Denmark and Norway or from the two nuclear power plants in Finland. It is a hope that in any other activity of the same kind it would be possible to get participation from the whole target group.

4.2 Preparations

It is essential that this kind of workshop has a relatively long time for preparations, five months at least. It takes a lot of time to make all the contacts with the participants in different countries and the planning work, especially the simulations take time. It is very important that the scenarios functions and feels trustworthy. The technical background is not the important thing but it has to be relevant.

Three separate Information letters were sent to the participants in advance of the workshop. In each one there was some information about how the workshop would be carried through. This was meant to prepare the participants especially for the simulations. Together with the Information letters there were also some material about Oskarshamn Nuclear Power Plant.

A special package about Oskarshamn NPP was prepared and distributed to the participants when they arrived to the conference centre, index Appendix 6.

There were no signals from the participants that they should have had more information about the workshop before they arrived. The only small problem was that the taxi drivers in Stockholm were not so familiar with the location of the conference centre. Some of the foreign participants therefore at first came to the wrong place.

4.3 The workshop

The concrete result of the workshop is a list "Baltic Nuclear Network", Appendix 7. This list contains names, telephone- and fax numbers as well as postal and e-mail addresses to authorities and nuclear power plants which were participating in "Baltic Nuclear" completed with - Statens Strålevern Norway, Beredskabstyrelsen Denmark, Geislavarnir rikisins Iceland, TVO NPP, Loviisa NPP and Kola NPP. It can be used in case of any need for contacts within the nuclear community around the Baltic Sea. One other list was produced at the workshop. The participants themselves produced that list at the end of the final discussion. This list contains two different aspects of the workshop from each participant – “what were the three most important things I have learned” and “three things I want to do when I get home”. Every participant got a copy of this list before they went home.

Here are some examples of what the participants have learned:

- The importance of information at the need of the receiver and the importance of good media contacts
- That the people in a Crisis Management Team has to be well trained in crisis management including the human behaviour field
- The need for training to handle serious events where the real radiological risk is very low or not existing such as heavy fires, accidents with a lot of casualties.
- Simulation gives new experiences
- It is important to discuss these matters with colleagues from neighbouring countries
- There has to be a clear division of responsibility among the members of a Crisis Management Team

Here are some examples of what the participants want to do at home:

- More training, drills, exercises
- Update the emergency plans
- Regular media training
- Identify threats
- Develop training materials, emergency plans and procedures
- Develop tools, procedures and network for communication with colleagues in neighbouring countries in case of a crisis situation.

The participants also made an evaluation of the workshop. The overall assessment of the programme was 5 and 4 in a scale from 1-5.

Here are some of the comments:

- The best parts were the simulations and the lecture of prof. Lars Weiseth.
- It was very much information in a short time
- Do this again in about 18 months.
- Very good. Next time I will bring more people.
- Not enough time for "networking"
- It was very useful to share experiences with colleagues from Sweden and Finland we have a lot to learn from them.
- It is important to work in international groups.

4.4 Documentation

The participants got a file "Manual for Crisis Management Training Programme" and also some documentation of the lecture hold by Prof. Lars Weiseth and copy of slides from the lecture "Meeting the media at crisis and catastrophe" hold by editor Pelle Bergendahl.

The main contents of the crisis manual are:

- Introduction
- Crisis Management
- Preparation and analyses before training
- Execution of the training program
- Benefits gained from experience

5 Economy

This workshop was financed by NKS except for travel costs and accommodations. The travel costs etceteras for the participants from the Russia and Lithuania were paid for by NKS, SSI/SIUS and SiP. The other participants paid for themselves.

In future arrangement of this kind it ought to be possible to finance it partly with fees.

6 The future

The workshop has pointed out that there is a need in the nuclear community of more contacts regarding exchange of information in general and how to organise a good and fast information flow in case of any event in a nuclear power plant between authorities and nuclear power plants and between nuclear power plants.

Many of the participants stated that there are indeed a need for exchange of information about preparations, planning and training regarding emergency situations. The importance of learning from each other was strongly emphasised.

Some of the participants also wanted that this kind of workshop should be repeated in a couple of years.

NKS could have a role in this in the future.

Appendix 1. Invitation to the workshop



Nordisk kernesikkerhedsforskning
Norrænar kjarnöryggis rannsóknir
Pohjoismainen ydinturvallisuustutkimus
Nordisk kjernesikkerhetsforskning
Nordisk kärnsäkerhetsforskning
Nordic nuclear safety research

Baltic Nuclear

NKS/BOK-1.6 workshop on information tools 19th – 20th March 2001, Stockholm, Sweden

Invitation to the NKS “Baltic Nuclear” workshop on information tools for dealing with serious events or accidents at a nuclear power plant (NPP)

NKS has identified a need for an exchange of experiences, in the field of information and communication, between the Top-Management of NPPs and the nuclear authorities in the Nordic and Baltic Sea countries.

Therefore, NKS has taken the initiative to organize a workshop on the subject. The workshop will take place in Lidingö near Stockholm, Sweden on March 19 – 20, 2001. The target group of the workshop is the Top-Management of the NPPs. The ideal participation from each NPP is one person from the Top-Management and one person from the Information Department, preferably the Head of the Department, as well as one representative from the Information Department at the nuclear authorities of each participating country.

The workshop will bring together a qualified group and allow for valuable personal contacts. The aim of the workshop is to improve abilities of the participants to handle massive requests for information during an emergency. The workshop can also be used as a platform to get experiences ahead of the big exercise in September 2001, “Barents Rescue 2001”, which is part of the Pfp-program.

A preliminary program and a registration form are enclosed this invitation. The exact programme will be discussed with representatives from the participating NPPs and authorities, to ensure that the participants will get the most out of the event.

The registration form shall be sent no later than October 1, 2000 by fax to the NKS Secretariat, fax. no. + 45 4677 4046.

NKS will pay the costs of the seminar. The participants will pay themselves for travel and accommodation. A preliminary hotel reservation has been made for the participants for one night at the Skogshem Conference Center in Lidingö, including 2 luncheons, dinner, evening meal and breakfast for a cost of about 250 USD.

For further information, please contact
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Best regards

Bent Lauritzen

Encl.:
Preliminary workshop program
Registration form

Appendix 2. Complete list of participants with addresses

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Appendix 3. Final programme

NKS/BOK-1.6

February 22, 2001



Nordisk kernesikkerhedsforskning
Norrænar kjarnöryggis rannsóknir
Pohjoismainen ydinturvallisuustutkimus
Nordisk kjernesikkerhetsforskning
Nordisk kärnsäkerhetsforskning
Nordic nuclear safety research

Final programme

Baltic Nuclear Workshop

Workshop goals

To increase the possibilities of maintaining public confidence in case of a serious event or an accident at a nuclear power plant by

- providing the participants a practical view on how different types of events can be handled
- providing the participants a view on today's massive search of information of different media and how the created pressure can be handled
- giving the participants experiences that can improve their emergency plans
- giving the participants knowledge on how information responsibilities of the authorities and the nuclear power plants vary in the different countries
- creating personal contacts, thereby improving the flow of information in case of an emergency

Time and place

Time: 19 – 20 March 2001

Place: Skogshem Conference Center in Lidingö, close to Stockholm, Sweden.

Language

English, Russian speaking interpreters will be available.

Final programme

March 19, 2001

1100 – 1200	Opening of the seminar <i>Introduction and presentation of the participants</i>
1200 – 1300	Luncheon
1300 – 1500	Action exercise <i>Different crisis situations will be presented on video. The participants will have to handle these situations in a very short time. The exercise is followed by a short discussion.</i>
1515 – 1900	Crisis management, simulation/exercise 1 <i>Ragnar Kjeserud, President of the Nordic Academy of Emergency Preparedness</i>
1900 – 2000	Dinner
2000- 2130	Human behaviour in crisis and leadership under stress <i>Lars Weisæth, Professor MD, Division of Disaster Psychiatri, Department Group of Psychiatri, University of Oslo</i>
2200 -	Evening meal

March 20, 2001

0830 – 1100	Simulation/exercise 2 <i>Immediate experiences and analysis</i>
1100 – 1215	Behaviour of media in case of an accident <i>Pelle Bergendahl, journalist Lars-Göran Wahlberg, information consultant</i>
1215 – 1300	Luncheon
1300 – 1600	Experiences, discussions <i>What changes to do in your own organization ? Summing up</i>
1600	Closing of the work-shop

Appendix 4. Scenario simulation 1

BALTIC NUCLEAR SIMULATION 1

SCENARIO SIM 1

Control Room Explosion O2, cooling problems, terrorism/extortion

PRE-DRILL FACTS

Before the drill the following items are presented to the Plant Operations Manager, status Oskarshamn Unit 2:

- Fault report concerning a fan in the control room (743 F52), probably a bearing wear out – makes a lot of noise and is not possible to use, meaning that the outflow ventilation is almost totally down and out. During the day a valve is being repaired in the auxiliary feed water system (327 V42), due to an electric motor burn-out. The motor is to be replaced.
- An oil pump in the condensed steam system (442 P2) is to be exchanged during the day.
- Problems with broken ice slush in the cooling water intake appeared the last days. Today these problems have worsened. If ice barriers cannot be made function properly there is a risk of close down. Also O1 is hit by ice slush.
- Loading of a fuel transport cask has started. The loading gadget malfunctioned a few days ago, so loading is delayed according to plans.

CHAIN OF EVENTS

The simulation starts with the above pre-drill facts being conveyed to the group. Meanwhile, information arrives that a change in the rescue services preparedness has been undertaken due to an accident arrived in the neighbourhood of the nuclear plant. Fire brigade forces are being repositioned and men and engines are moved from Oskarshamn to the plant site.

At this weak moment of readiness an explosion occurs in the main control room of Unit Two. There is a fire, which the staff is trying to put out with available hand extinguishers, and a lot

of nasty smoke from burning cable insulation. After a while the control room is abandoned. There are problems to keep the water level in the reactor vessel.

The cause of the explosion is soon revealed. An international terrorist group, The Third World Liberation Army is getting in contacts with the crisis team, claiming to be the perpetrators of the explosion and conveying a message that they wish to receive a ransom of 10 Million USD not to set off more explosive charges placed at the plant.

Meanwhile an alarm goes off, stating that the cooling water level in the reactor vessel is dangerously reduced. After a while, the shift engineer suggests that the Danger Alert Signal be given for O1 and O2, and that O1 be scrambled. There is a moment of hesitation due to the fact that the energy market price is very high due to weather conditions.

Media pressure is immediate and dense. Requests for comments arise from news providers all over the world. The local radio in the area is broadcasting permanently, relaying scared inhabitants and featherbrained politicians in a confusing mixture. This news reporting is causing some panic in the area.

At the end of the simulation the local police reports that they have caught the alleged terrorist, which have been travelling in a mini bus on a nearby road. The group had an accident, and one of the men broke an ankle. Being brought to hospital in a police car, he collapsed and confessed the whole setup. They had heard of the explosion in control room on the radio, and decided to take advantage of the situation. The terrorist threat is over.

DEMANDS FOR ACTION

During the simulation the participants are presented with a number of considerations, which they are supposed to deal with in a competent manner:

- decide about release of the alarm "Immediate danger"
- close down Unit One, Unit Two perhaps Unit Three
- evacuate Unit One and Two
- forewarn about evacuation of Oskarshamn city to the county council administration, and more,
- take care of evacuated personnel,
- take care of shocked and injured staff,
- see to it that press releases are written and distributed,
- have press meetings arranged,
- hand out reliable information on the state of things, trying to calm panic stricken citizens, yet not tampering with the truth,
- take care of requests for special media contacts, such as special interviews for radio and TV,
- present correct incident facts with empathy and off guard,
- administrate contacts with
 - inspectorates,
 - government ministries,
 - Sydkraft corporate directors,
 - county governor and county administration,
 - local fire brigade brass hats.

NR	TIME	FROM → TO	MESSAGE/ACTION
01			<p>Before the drill the following items are presented to the Plant Operations Manager, status Unit Two:</p> <ol style="list-style-type: none"> 1. Fault report concerning a fan in the control room (743 F52), probably a bearing wear out – makes a lot of noise and is not possible to use, meaning that the outflow ventilation is almost totally down and out. During the day a valve is being repaired in the auxiliary feed water system (327 V42), due to an electric motor burn-out. The motor is to be replaced. 2. An oil pump in the condensed steam system (442 P2) is to be exchanged during the day. 3. Problems with broken ice slush in the cooling water intake appeared the last days. Today these problems have worsened. If ice barriers cannot be made function properly there is a risk of close down. Also Unit One is hit by ice slush. 4. Loading of a fuel transport cask has started. The loading gadget malfunctioned a few days ago, so loading is delayed according to plans.
02	09.00	Oskarshamn Fire Brigade Duty Officer → Security Center	Oskarshamn NPP fire brigade alerted to traffic accident on nearby main road, E22 – to maintain required preparedness there will be a repositioning of fire forces; Oskarshamn engines moving to the plant site.
03	09.02	Local Radio Station	Traffic information – road accident at E 22, beware of blue light vehicles.
04	09.04	Shift Manager Unit Two → Engineer on duty	- Explosion in Control Room Unit Two. Part of some racks wrecked. Smoke and fire behind the control room racks. Fire alarm and scram Unit Two
05	09.05	Engineer on Duty → Security Centre	Alarm the Emergency Organisation
1	09.20	Shift Manager Unit Two → Plant Operations Manager	There has been an explosion in the control room of Unit Two. Part of some racks wrecked. Smoke and fire behind the control room racks. We have some problems with the water level in the vessel. We try to be here.
2	09.22	Journalists from several media to anyone	What has happened at the plant. The police and the fire brigade are on their way
3	09.25	Conference hostess → anyone	Envelope containing blackmailing letter requesting 10 Million US\$ is delivered. Threats of several more bombs in OKG properties, Unit Three, to be detonated if OKG refuses to pay up. Demand shall be acknowledged and granted by showing a white flag in a window in the conference room before X pm
4	09.28	Shift Manager Unit Two → Plant Operations Manager	We have still problem to establish the water level in the vessel. – People are badly affected by the smoke, coughing and panting. We are missing the control room technician

NR	TIME	FROM → TO	MESSAGE/ACTION
5	09.30	Local Radio Station News Break	Quoting official information from the Fire Brigade in Oskarshamn the station reports of an explosion in a control room at Unit Two. Interviewed Engineer on duty says it is too early to completely rule out risk of nuclear accident, but states that no indications of such is at hand.
6	09.32	Voice on phone → anyone	You have received a most important message in a bag envelope from us. Now read it carefully and follow the instructions. Your time is running out. You are now experiencing what powers we possess. The explosion at your site is just one warning. Six more bombs are set out inside your plant to be released by just one mobile phone call. Remember that we will see your response to our demands before 10.30 a.m. Now read the letter we have sent to you. (To be phrased according to the groups handling of the parcel.)
7	09.34	Shift Manager Unit Two → Plant Operations Manager	- There is too much smoke here now - we are retreating to reserve control room.
8	09.36	Journalists	Several national media now alerted by routine incident info sent to Swedish news agency TT. They ask for more details on the fire in the Unit Two control room. Journalist from local radio station ask for a telephone interview for the 10.00 news.
9	09.38	Local Radio Station News Break	- There is a fire on Oskarshamn Nuclear Power Plant. No details yet. County Defence Director says no reason for alarm and urges everyone to remain calm. No outlet indications.
10	09.40	People worried by the Local Radio message to stay calm → anyone	Calling in to find out what has happened in the nuclear power plant. Risky to go out? Take iodine pills now?
11	09.42	SVT24 News Desk technical supervisor → Communication Manager	- Can we set up an uplink car inside the fence? Are there positions for us somewhere? Don't you have any plans for broadcasting facilities on the site? Terracom will send several transmission vans, we will have a 4 camera production lorry sent over from Malmö and several roving eye units... Where do you plan to have them parked? We will be using the Reuters contribution satellite at 14 degrees West of South and we must have clear track on the bearing... Will there be a pressroom? Isn't this all prepared and thought through?
12	09.44	Sydskraft Power Control Room → Site Emergency Director	- Heard you have problems with Unit Two – we sincerely hope that you will be able to keep it running, we have a 100% price raise on the market this morning due to the cold weather.
13	09.46	Shift Manager Unit One → Plant Operations Manager	- Suggest scram Unit One and Immediate danger alert at Unit One and Two. We will now leave the control room and go to the reserve control room.
14	09.48	Local Radio Station extra	Reports on Immediate Danger Alert in Oskarshamn Unit One and Two (if so). No interview/ comments from Oskarshamn NPP Retired control room technician states in telephone interview that this alert code is only used when there is immediate risk of a serious accident with personal injury.

NR	TIME	FROM → TO	MESSAGE/ACTION
15	09.50	Sydskraft Production Director → Site Emergency Director	- Could you give me a short survey, please.
16	09.52	Oskarshamn city councillor → Site Emergency Director	- What's up? We have heard rumours about a core meltdown! Should we evacuate the city. I have talked with the county governor he is very worried...
17	09.54	Swedish Nuclear Power Inspectorate → Communication Manager	- Short survey, please! What has happened? What action has been taken?
18	09.56	Swedish Nuclear Power Inspectorate → Plant Operations Manager	- Short survey, please! What has happened? What action has been taken?
19	10.00	Local Radio ordinary news	Summary of information available. Interview with the Communication Manager or someone else.
20	10.02	Shift Manager UnitTwo → Plant Operations Manager	- We have no start of the condensed steam pumps and due to that no start of the main feed water pumps, the water level is + 0,7 meters above the core decreasing, restart of auxiliary feed water pumps OK, reactor pressure 70 bar We are not feeling well probably due to the smoke we go before we left the control room. We need assistance. We still miss the control room technician. He can be inside the control room. There can be other people in the control room as well.
	10.03	Alarm level Emergency	
20	10.04	Swedish Radiation Protection Institute → Radiation Protection Manager:	- Short survey, please! Releases? Radiation levels? Dosimeter readings? Any foreseeable problems?
21	10.06	CLAB construction site → Radiation Protection Manager	- I have understood that there is some sort of incident at Unit One and Unit Two. What's up? Is it serious? My people are very concerned, a lot of rumours are spreading – what are the facts?
22	10.08	Fire Brigade Rescue Leader → Service Operations Manager	- We have now completed the search of persons in the control rooms of Unit One and Two. We have found one injured person in the debris of the racks in the control room, he is unconscious and is now being taken to hospital. We have released CO2 in Unit Two Control room

NR	TIME	FROM → TO	MESSAGE/ACTION
23	10.10	Shift Manager Unit Two → Service Operations Manager	- We have problems with a valve in the condensed steam system. We cannot open it. We need assistance.
24	10.12	County Governor of Gotland → anyone	The meteorological station here says winds are turning east now, which means that a fall-out will hit us right in the eye. Evacuating an island is not an easy task. Should we start now, just to be sure?
25	10.14	Evening newspaper Expressen → anyone	- Sources within the Swedish Security Police says that you are subject to extortion from a militant Third World terrorist group. What are their demands? Are you going to accept?
26	10.16	Alarmed farmer neighbours → anyone	- Heavy smoke pouring out of your site – dangerous? Can we have the cattle out on the fields? Can you guarantee there is definitively no risk at all? There will be absolutely no radiation?
27	10.18	Information Assistants → Communications Manager:	- What can we tell the media and the public? What shall we do with journalists and TV broadcasting vans?
28	10.20	County Defence Director → Site Emergency Director	- Are you completely sure that there will be no radioactive outlet from the reactors? We are considering to prepare evacuation of Oskarshamn city and the nearby countryside.
29	10.22	Shift Manager Unit Two → Plant Operations Manager	- The water level is still decreasing + 0,2 meters above the core
30	10.24	Local Radio Station extra news broadcast	- One injured person on his way to Emergency Ward in hospital. Status unknown. Interviews with County Defence Director, SKI General Director, someone from the Emergency Organisation.
31	10.26	Reporter → Communication Manager	- Ambulance flashing blue lights is leaving the site – what's happened?
32	10.28	Unit One & Unit Two employees next of kins → anyone	- There has been a report on the local radio that people are brought to hospital. Who has been injured?
33	10.30	Shift Manager Unit Two → Plant Operations Manager	- Preparations to start boron injection. The water level - 0,20 meters below the core, decreasing
34	10.31	Staff Manager → Site Emergency Director:	- How long do we need to keep alarm level 1? People are frustrated and some are worried about radiation. There are rumours about low levels in the reactors, and some are out by the fence talking to journalists, explaining the China Syndrome...

NR	TIME	FROM → TO	MESSAGE/ACTION
35	10.32	Shift Manager Unit Two → Plant Operations Manager	- The boron injection system started and operates normal. Water level - 0,25 below the core
36	10.34	Local Radio	Police inspector being interviewed reports that four persons in a mini-van car with German registration have been arrested by the police in the neighbourhood of the Oskarshamn nuclear plant. Refusing to stop at a police barricade, they drove their car into the ditch. One person broke an ankle, and being brought to hospital in a police car he broke down and confessed that the four of them had decided to make use of the news broadcast information on the explosion in the control room to extort the nuclear plant for money. There are no more bombs set up in the plant. Police says danger is over.
37	10.36	Shift Manager Unit Two → Plant Operations Manager	- The water level is - 0,15 and increasing
38	10.38	Rescue Leader → Service Operations Manager	Smoke helmeted firemen have investigated the site of the explosion and found a high voltage short circuit in cables passing the spot. One cable attachment had loosened and caused the cable to bend and break. Bad skill seems to be the root of the problem.
40	11.00		Press conference

Appendix 5. Scenario simulation 2

**Background, chain of events,
simulation overview:**

A group of 30 high level politicians from European nuclear countries has arrived in Oskarshamn to participate in a two-day meeting on nuclear power safety issues. Oskarshamn is thought to be a good Swedish example to study, and use as a case in the matter. Two Swedish ministers will host the sessions – the premier Göran Persson and the minister of environment, Kjell Larsson. The group of politicians is travelling in the company of about 15 people from various international media firms – TV channels, newspapers, technical magazines. The party is travelling in two coaches. The media group will use a separate “press coach” for its local transport.

Next morning, the politicians will meet the power plant management group at a breakfast meeting at 0730 hrs, in the village at the plant site. They will get a plant presentation and the opportunity to discuss actual safety issues with their hosts.

The bus with the politicians is guided by an information officer from the plant, from Oskarshamn to the site. Before breakfast they will have a short trip around the site.

During the tour on the site the bus with the full group of politicians crashes into a gasoline truck. The two vehicles catch fire. The rescue operations become complicated as the exit doors of the bus are blocked.

At the same time a process is started in Unit Three, to move used fuel. The shift team has a critical situation developing, as the transport truck scidded and got stuck in the gate, before it reached the loading point. This situation becomes further complicated when a fuel cask is dropped from the overhead conveyor, then damaging the walls of the fuel water basin as well. The cask had not been effectively closed and the radiation level is now rising in this section of the Unit Three. The open gate presents a serious risk of radiation exposure. The water level in the fuel basin is falling, increasing the pressure on the Unit Three shift team, and they ask for assistance by health physics and mechanics. At this point, *alarm level Emergency* becomes effective.

The radiation level continues to rise, and when the control level of *100 mrem/h* is reached at the Unit Three fence, the Oskarshamn NPP crisis management team must decide if *alarm level General Emergency* shall become effective.

Sooner than expected, the rescue force and the trouble shooting team in Unit Three manage to resume control and a reasonable command of the various dangerous situations that have occurred in the morning hours of this unfortunate day. The plant management then feels that the current operations may continue as normal and planned.

If the alarm level two, in fact, has become effective, several concerned authorities have already initiated some far reaching safety measures, which are difficult to stop in a short time, e.g. warning and possibly evacuating residents in the assumed danger zone.

As all these events are developing, the media attention is close and intensive, and increasingly so, if the site crisis management team has chosen to hold back information.

Employees, their families, local authorities ask for reliable and reassuring information. Regional authorities and industry inspection bodies ask for facts based reports and prompt attention to their requirements.

Cast of characters, organisations, CMT contacts in the simulation:
(listed in order as they appear in the simulation process)

Engineer on duty, OKG site
Local morning paper
Chairman of the City Council of Oskarshamn
Radio Kalmar (regional radio channel), news broadcast
Rescue Team leader
Shift Manager, O3
Swedish national radio channel, P1
Swedish Government, press and media service
SSI (Swedish: *Statens Strålskyddsinstitut*) - Swedish Radiation Protection Institute
OKG power plant switchboard
OKG site security centre
SKI (Swedish: *Statens Kärnkraftsinspektion*) - Swedish Nuclear power Inspectorate
Kalmar County government
CNN, TV channel, reporter
Site HR manager
Several journalists
CNN broadcast (if not actually sent, referred to in telephone conversation)
TT News agency
OKG Managing Director

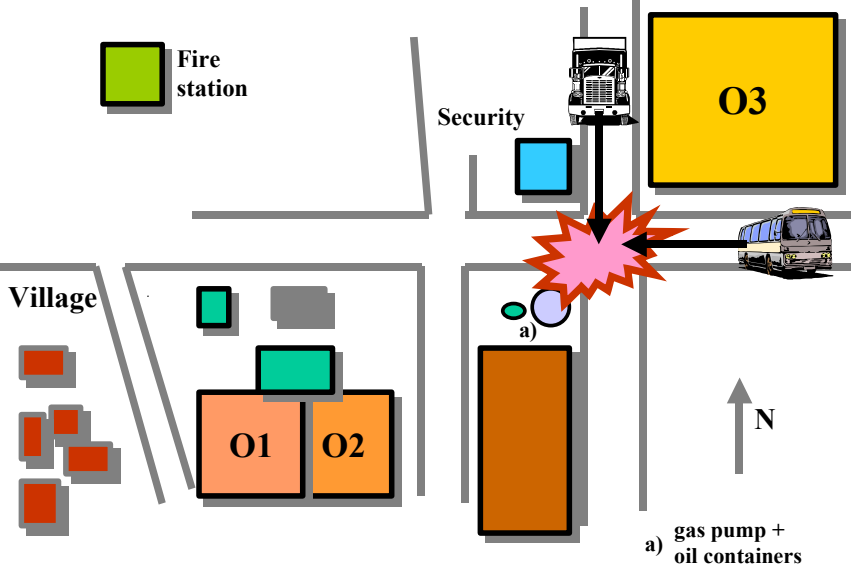
Abbreviations and specific terms:

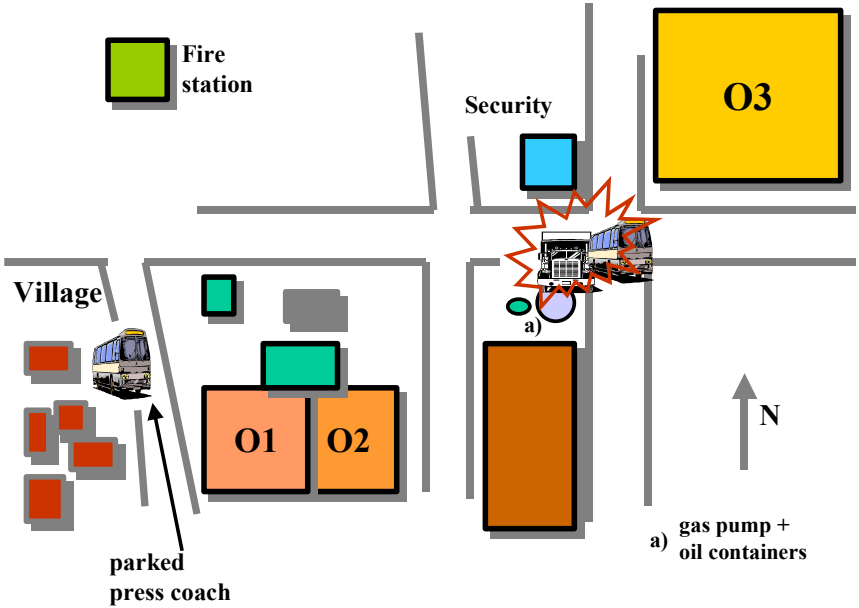
Site management functions and roles:

SED	Site Emergency Director
POM	Plant Operations Manager
SOM	Service Operations Manager
RPM	Radiation Protection Manager
COM	Communication Manager
CMT	Crisis Management Team
EOC	Emergency Operations Center
TSC	Technical support Center

Swedish authorities:

SSI	(Swedish: <i>Statens Strålskyddsinstitut</i>) - Swedish Radiation Protection Institute
SKI	(Swedish: <i>Statens Kärnkraftsinspektion</i>) - Swedish Nuclear power Inspectorate

No.	Time	From / to	Content
01	Evening before simulation		<p>The CMT receives a background document: A group of 30 high level politicians from European nuclear countries has arrived in Oskarshamn to participate in a two-day meeting on nuclear power safety issues. Oskarshamn is thought to be a good Swedish example to study, and to use as a case in the matter. Two Swedish ministers will host the sessions – the premier Göran Persson and the minister of environment, Kjell Larsson. The group of politicians is travelling in the company of about 15 people from various international media firms – TV channels, newspapers, technical magazines. The party is travelling in two coaches. The media group will use a separate “press coach” for its local transport.</p> <p>Next morning, the politicians will meet the power plant management group at a breakfast meeting at 0730 hrs, in the village at the plant site. They will get a plant presentation and the opportunity to discuss actual safety issues with their hosts.</p> <p>The bus with the politicians is guided by an information officer from the plant, from Oskarshamn to the site. Before breakfast they will have a short trip around the site.</p> <p>The bus with the media representatives will then arrive at 0730 hrs for the breakfast meeting.</p>
1	07.45	Engineer on duty, asking for someone in the management team	<p>We just had major traffic accident, at the road crossing facing the Security centre building. A heavy, southbound truck, – a gasoline tanker, crashed into a bus coming in the westbound direction.</p> <p>OKG Nuclear Power Plant; site section overview</p> 

No.	Time	From / to	Content
2	07.50, or when the crisis team is in place	Engineer on duty, new report to SOM (Service Operations Manager)	<p>Police and fire team are on their way. The truck turned over by the impact. Its trailer is leaking and has caught fire. The bus is standing on its wheels and is burning too. Its exit doors are blocked. The crash is very close to the oil tanks.</p> <p>OKG Nuclear Power Plant; site section overview</p> 
3	07.50	Local morning paper, Oskarshamns Tidningen	- Fire brigade (AC) and county police HQ (LKC) states that they are alerted to traffic accident on the OKG site. Are OKG vehicles involved? Whose truck? Your driver?
4	07.55	Chairman of the city council of Oskarshamn	Somebody called about the accident a minute ago. I know that Göran is on that bus! What a terrible thing to happen? What can you tell me?
5	08.00	Local radio Radio Kalmar	<p><u>08.00 hrs morning broadcast:</u> Live report from the scene of the accident, in the centre of the nuclear plant site:</p> <p><i>This morning, a bus with the Swedish prime minister Mr. Göran Persson, and the minister of environment, Mr Kjell Larsson, crashed into a gasoline truck at the the Oskarshamn nuclear plant. The Swedish ministers are hosting a group of European energy ministers, who were travelling in the same party when the incident occurred.</i></p> <p><i>The report from the site of the crash says that both vehicles are burning, the rescue team is presently struggling to create evacuation routes out of the burning bus. Radio Kalmar will be back with a news update, soon.</i></p>

No.	Time	From / to	Content
6	08.02	SKI, Swedish Nuclear Power Inspectorate, Anders Jörle Head of information	The incident at the Oskarshamn site is a first news item on all channels. Please tell me what has happened. Is anyone injured?
7	08.04	Rescue team leader to Service Operations Manager (SOM)	The rescue team leader calls SOM in the crisis team to coordinate: Issues to discuss: <ul style="list-style-type: none"> - At the first press release, how do we handle the media on site, - Press conference ?, Oskarshamn NPP responsibilities, immediate contact with Sydkraft, how to avoid or decrease the risk that this will be another nuclear accident in the media, Discussions with the police and the firebrigade and others about to organise the work.
8	08.06	Shift Manager Unit Three to POM (<i>Plant Operations Manager</i>)	We are now in the process of moving used fuel. The transport truck is stuck, halfway through the open gate. The gate is damaged. We need a security person to guard the gate.
9	08.08	Rescue team leader to SOM	We have problems ... The fire caused by the crashed vehicles has spread to the area around the oil tanks. They could be damaged as well.
10	08.10	Sw Broadc Corp News Desk	We understand that our prime minister and about twenty European energy ministers are involved in a bus crash at the Oskarshamn NPP site. We have a team there already. Please give me an overview of the situation and what has happened. Will you organise a press conference? Where, when?
11	08.12	Rescue Team Leader, To SOM	The fire is handled, but we are struggling to rescue the bus passengers. It will take some time to get them all out. The oil tanks? The tanks are secure! But, there are too many curious people driving into the site area, just to watch. Rescue vehicles have difficulties coming through. Can we close the west gate of the outer fence?
12	08.14	Sw Gov. Press Room	- Would be much obliged to hear your side of the story – what was the task of the truck driver, what security measures did you undertake to protect VIP traffic?
13	08.15	Shift Manager Unit Three to POM	A fuel cask loaded with used fuel has been dropped and it fell straight down into the basement. The gate is still open. The transportation truck is still blocking the gate to the reactor building.

No.	Time	From / to	Content
14	08.16	SSI, Swedish Radiation Protection Institute, inspector on duty to Radiation Protection Manager (RPM)	SSI had a person on the bus, which crashed. What do know about him? How could this happen? Are there any other security or safety issues that I should be aware of?
15	08.16	Power plant switchboard	There are so many external calls, that we may not be able to handle them all. Please tell us what to do!
16	08.17	Rescue Team Leader, To SOM	We are standing at the gate # 312. It is blocked. We need assistance by health physics and mechanics
17	08.18	Shift Manager Unit Three to POM	<p>The water level in the fuel basin is falling. Damage is the probable reason.</p> <p>We have now a reasonable understanding of what happened to that dropping fuel cask: The conveyor wire broke. The fuel cask went through the bottom of the cask basin. One of the operators got hurt by the broken wire, is bleeding and unconscious. The cask could be damaged too. A cloud of steam / smoke came out of the cask when it dropped. <i>The hall monitors</i> are now sending alarm signals.</p> <p><i>The stack monitor</i> indicates increased activity level. This could mean that the cask is damaged.</p> <p>We estimate that it will take about 2,5 hours for the water level to be at the bottom section of the gate.</p> <p>I have activated the “immediate danger” alarm for Unit Three!</p>
17	08.19	Rescue-leader to Service Leader	We have a rescue team coming down. We need assistance. <i>Alarm level Emergency</i> is now effective for Unit Three!
18	08.20	Site Security centre, to POM	<p>The security person at gate #312 reported that some heavy object has fallen down and broken a hole in the wall of B1.04.</p> <p>Lots of water is coming out of the opening. The security guy ran away, afraid of radiation activity.</p>
19	08.22	Local Radio (Radio Kalmar)	We understand that the <i>alarm level Emergency</i> is now effective at Oskarshamn NPP. What has happened?

No.	Time	From / to	Content
20	08.24	SSI, Swedish Radiation Protection Institute, inspector on duty to RPM	The alarm and contingency level has been raised at Oskarhamn NPP, alarm level Emergency is now effective, why? What has happened? Give us a status report, and promptly!
21	08.24	SKI, Swedish Nuclear Power Inspectorate	The alarm and contingency level has been raised at Oskarshamn NPP. Alarm level Emergency is now effective, why? What has happened? Give us a status report, and promptly
22	08.24	The County Government (<i>director of defence and emergency planning</i>)	The alarm and contingency level has been raised at Oskarshamn NPP. The alarm level Emergency is now effective, why? What has happened? Give us a status report, and promptly!!
23	08.25	Site Security centre, to POM	Plenty of water and steam is still coming out through gate #312. The gate is still open.
24	08.26	Rescue Team Leader, To SED (<i>Site Emergency Director</i>)	We have finished the work with the accident at the road crossing. Three passengers in the bus are dead. Several others are seriously injured, by fire and smoke.
25	08.27	Shift Manager Unit Three to POM	Two technicians are missing, no report at evacuation meeting point(s). We may need more hands to deal with this situation.
26	08.30	Local radio (Radio Kalmar)	<u>News broadcast:</u> a) reported dead and injured at the traffic incident at Simpevarp (three persons killed, not yet named, 10 persons seriously injured by smoke, also no names) b) a dangerous situation seems to be developing at Oskarshamn NPP/Unit Three

No.	Time	From / to	Content
27	08.33	Site Security centre, to RPM (Radiation Protection Manager)	<i>Dose rate at Unit Three fence is more than 1 mSv/h (100 mrem/h).</i>
28	08.35	Rescue Team Leader, To SOM	Our team has found three seriously injured persons on floor 3 in RB They cry for help. The activity level is too high to allow a direct rescue effort.
29	08.37	CNN	Please tell us what has happened at the power plant site this morning. The unfortunate accident inside the plant area. We understand that you currently are dealing with a dangerous situation at the Unit Three reactor. Please provide us with the facts.
30	08.39	Staff Manager	We are now receiving many telephone calls from our employees' families. What can we tell them about the incident in the Unit Three plant? How dangerous is it? Have you received any information from the Rescue Team Leader? There is a rumour that several technicians are seriously injured.
31	08.41	Shift Manager Unit Three to POM	The rescue / fire team has managed to pull the blocking truck away from gate 312. The gate is now clear. We have organised a group of technicians with AGA sets, to help the fire team to close the gate.
32	08.44	Journalists	Please give me a facts based summary of what has happened this morning. Is Oskarshamn NPP a safe plant – for the region, for the people who work there? What safety procedures failed today? What will be the consequences for the production capacity? How long will the Unit Three be shut down?
33	08.46	Rescue Team Leader, To POM	All missing persons are now found. The numbers are reconciled. Three employees are seriously injured and brought to hospital.
34	08.48	CNN, broadcast	The TV channel runs a report from the Oskarshamn NPP. It is based on telephone interviews, with the site management, with employees, with politicians involved in the early morning accident, with inspection authorities in Sweden and in Europe. The report is well done and dramatic. It seems obvious from this report that the site management has not had the command of the development that would be expected of a power plant site management team in a similar situation anywhere else in Europe.
35	08.50	Extra News BC Radio Kalmar	Starts with the status at Unit Three, then the status of the bus accident then interviews with politicians who were involved in the traffic accident. An interviewed politician had then watched the development caused by the dropped fuel cask, and had very critical viewpoints. Mr Göran Persson, also interviewed, happened to say that the bus was hit by one of Oskarshamn NPPs trucks, driven on the wrong side of the road. He goes on saying that he deeply regrets that he ever suggested running the nuclear safety conference in Oskarshamn.

No.	Time	From / to	Content
36	08.52	Vice President, Sydkraft Information and PR	We are surprised to see / listen to the CNN report on the current incidents at Oskarshamn NPP. We feel that the information that is now broadcasted over Europe could have been more accurate if your management team would have been more active. We are here to assist, but you must put your act together, and fast.
38	08.53	Oskarshamn NPP Info Dep	- What can we say about the traffic accident? Whose car? Whose driver? What was the purpose of the car on the site?
39	08.54	Oskarshamn NPP Info Dep	- There is a lot of pressure from the media. We have to arrange a Press Conference. Where? At what time? Who will represent the Management?
40	08.56	Editor-in-chief TV4 morning program	- Could someone from the Oskarshamn NPP Crisis Team be in Stockholm and in our studio at 5 a.m. tomorrow, to be interviewed on nuke power safety?
41	08.58	Editor-in-chief Aktuellt Sw TV 2.	- We will broadcast tonight's entire Aktuellt from Oskarshamn NPP from a 4 camera outside broadcast unit directly from the site. The content will be nuclear reactor safety. Who will be participating from plant?
42	09.00	OKG Managing Director, to SED	<p>The MD is asking for an update report on the development in the two unfortunate events this morning. He understands that the primary disaster is under control :</p> <ul style="list-style-type: none"> • The traffic accident is handled, dealing with its consequences is delegated • Unit Three operation stopped, cooling process currently ongoing, according to set procedures • Gate 312 is closed • The fuel basin's water level is acceptable, and controlled • No external release to the atmosphere; slightly increased activity level in the stack <p>- Why not call the county government and suggest that they cancel the Emergency General?</p>
43	09.02	County Government Director of Defence to SED	It is impossible to cancel the alert now – do you have any idea of the size of the operation that is now rolling, and the cost?
44	09.20		Press conference

Appendix 6. Index Oskarshamn package

Baltic Nuclear, index of the Oskarshamn package

1. Technical information about Oskarshamn nuclear power plant
2. Technical information about the Central storage of spent fuel, CLAB
3. General information about Oskarshamn nuclear power plant
4. General information about the city of Oskarshamn with a map
5. The tasks for the Crisis Management Team of Oskarshamn nuclear power plant

Appendix 7. Baltic Nuclear Network

Baltic Nuclear network

April 24. 2001

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Abstract	Proceedings of the NKS/BOK-1.6 workshop on crisis communication "Baltic Nuclear", held in Stockholm March 19 – 20, 2001, with participants from the nuclear power plants and nuclear authorities in the Baltic Sea region. The main content of the workshop was founded on the principle of "learning by doing". The participants were therefore practically trained in how to handle a crisis from an information and communication point of view. Added to that there were three different lectures.
Key words	Emergency plans; Crisis Management; Public relations; Public information; Reactor accidents