

## The Emergency Preparedness Unit at Svanhovd - 10 years

The Emergency Preparedness Unit at Svanhovd was established in 1993 and is today one of the two regional units of The Norwegian Radiation Protection Agency (NRPA). The unit works with questions concerning regional preparedness in the event of a nuclear accident, monitoring of radioactive contamination and dispersion of information and knowledge. The unit is situated on the premises of the Svanhovd Environmental Centre only a few kilometres from the Russian border, and was established as a result of the increasing focus on questions concerning preparedness in the event of a nuclear accident in the North.



*The Emergency Preparedness Unit is situated in beautiful surroundings at Svanhovd Environmental Centre in the Pasvik Valley.*

*Photo: Svanhovd Environmental Centre*

### Norwegian Radiation Protection Authority in the North

The Emergency Preparedness Unit at Svanhovd was the first regional unit in the NRPA and was established in 1993 as a result of the increasing focus on questions concerning preparedness in the event of a nuclear accident in the North. In February 1999 it was decided to establish a unit in the Polar Environmental Centre in Tromsø focusing on radioactive contamination of the environment in the North.

Important tasks for the unit in Tromsø are research, monitoring, impact assessments and to contribute to better knowledge about sources, transport and the mechanisms for absorption of radioactive contamination in the Arctic.

NRPA is located at Østerås in Bærum near Oslo and has a staff of approximately 90 employees. The NRPA is an agency under the Ministry of Health and is the only professional authority in Norway in the fields of radiation protection and nuclear safety. The NRPA is also working as a

professional authority for the Ministry of the Environment in the field of radioactive contamination of the environment.

### **The Emergency Preparedness Unit at Svanhovd**

The unit assists and strengthens the regional and local preparedness systems in case of a nuclear accident and also has important tasks in connection with mapping of radioactivity in the environment. Dispersion of information and knowledge in the fields where NRPA is the professional authority in Norway, is also an important task. At the Svanhovd Environmental Centre in Svanvik, 40 km from Kirkenes, the NRPA has posted three employees with knowledge about radiation protection, preparedness and radioecology. Administratively speaking, the unit is a part of the Section for preparedness in the Department for preparedness and environment of the NRPA.

### **Regional preparedness in the event of a nuclear accident**

The Emergency Preparedness Unit plays a central role in the construction and maintenance of the nuclear accident preparedness system in Norway with a special focus on the regional and local preparedness systems. This means:

- To assist the county governors office of the three northernmost counties of Norway in their planning and during exercises,
- To inform the county governor's office, municipalities, the civil defence and others with responsibility for nuclear accident preparedness,
- To keep in contact with the Norwegian general consulate in Murmansk and with Russian authorities with responsibility for nuclear accident preparedness,
- To monitor and oversee the Norwegian, Nordic and Russian networks for monitoring of the radioactive situation,

- To assist local authorities in their work to stop smuggling of radioactive and fission materials.

The Unit is a part of the secretariat for the Crisis Committee in the event of a nuclear accident and therefore it also has national emergency preparedness tasks and participates in the work of the secretariat and in the Nordic emergency preparedness work. The Unit also takes part in the planning, implementation and evaluation of large and small exercises, both on the national and international level.



*The exercise "Trang radiator" in Tromsø in 2002 used the cleaning up unit of the civil defence after a simulated accident with a Tc-generator on its way to the University Hospital of Northern Norway. Photo: NRPA*

### **Environmental monitoring**

The Unit is involved in terrestrial and marine monitoring programmes. After the accident with the Russian nuclear submarine "Kursk" a marine monitoring station was established at Grense Jakobselv. Every three months samples of seawater for analysis are taken here. At the same place samples of seaweed and laminaria are taken for technetium analysis in connection with the discharges from Sellafield.

Monitoring of freshwater fish, mushrooms and food chains like lichen – reindeer – man is especially important. The Unit collects samples and analyses them. The Unit also takes part in the measuring of caesium-137 in reindeer herders in Kautokeino, in a project coordinated by the

county governor's office to map radioactivity in wild life products and also takes part in the national network for monitoring of radioactivity in food, LORAKON.



*Measuring of radioactivity in reindeer herders from Kautokeino has been going on since 1965. Photo: NRPA*

The Unit is responsible for NRPA's monitoring of the atmosphere. This system consists of five monitoring stations (suction pumps) placed at different spots in the country. These suction pumps have an online measuring instrument measuring the radiation level in real time on the spot. If a defined limit is exceeded, an alarm will be triggered.



*Changing of filters at the suction pump at Svanhovd. Photo: NRPA*

### **The laboratory of the Unit**

The Unit has a measuring laboratory for radioactivity analysis and also the possibility to use a common laboratory at Svanhovd Environmental Centre. In the laboratory one can find advanced gamma detectors with high and low

resolution and also a number of handheld instruments for use in the field if an incident or accident demanding immediate action should occur. The laboratory, with its existing instruments and competence, will play an important role in the northern part of Norway if a nuclear or radiation accident should occur. In addition the Unit is also an important resource for other authorities in the region in the field of measuring radioactivity.



*The laboratory of the Unit with its two gamma detectors Photo: NRPA*

The measuring laboratory and the quality insurance programme were accredited in 2000 and they yearly take part in comparable laboratory test. This ensures good quality of the measurements.

### **Cooperation with Northwestern Russia**

The Norwegian-Russian Expert Group for Investigation of Radioactive Contamination of the North was established in 1992 as a part of the Norwegian-Russian Joint Commission for Cooperation in the Environmental Field. It was established as a result of information emerging in the autumn of 1990 about dumping of radioactive materials in the Barents and Kara Seas and the need for a closer cooperation with Russia in the fields of mapping and impact assessments of radioactive contamination.

The Action Plan for nuclear questions, which is the Governments follow-up of Report to Parliament no. 34 (1993-1994) is the most important instrument used by the Norwegian

authorities in the cooperation on nuclear safety and prevention of radioactive contamination from nuclear-powered installations in Eastern Europe and the former Soviet Union.

The Unit is taking part in the Norwegian-Russian cooperation and has, since its beginning, been involved in several projects. Amongst these are:

- Upgrading of the safety at Kola NPP,
- Establishing of an automatic monitoring network at the Kola Peninsula,
- Modernizing of the existing installation for cleaning of liquid low and medium level radioactive waste at GUPRTP "Atomflot" in Murmansk,
- Control at the Boarder Crossing Station at Storskog in order to prevent smuggling of radioactive material,
- Clarification of the waste situation in the Andrejeva Bay,
- Replacement of Strontium-90 sources from lighthouses along the Kola coast with solar energy (solar panels),
- Alarm systems at Kola NPP and the icebreaker fleet.

Participation from the Unit in these projects is important in order to take care of the radiation aspects in the regional cooperation.



*Russian lighthouse at the Kola Peninsula with a solar panel installed. Photo: County Governor's Office, Finnmark*

## **Dispersion of information and knowledge**

Dispersion of information and knowledge are important tasks for the Unit. Talks about the nuclear threat in the North and the Norwegian emergency preparedness system are given during meetings and seminars with lots of different groups. The Unit also arranges seminars and courses within the fields of responsibility of the NRPA, like for instance nuclear preparedness, the use of measuring instruments and general radiation protection for authorities such as the civil defence, the customs services, the police, the military and the hospitals. It is also very important to assist the media, both on a day-to-day basis and in case of incidents/accidents. The accident with the nuclear submarine "Kursk" demonstrated the importance of information to the media.

## **The future at Svanhovd**

The Unit is a resource in the North within its professional field. Local and regional cooperation in the field of emergency preparedness will continue to be important. At the same time the emergency preparedness work is being internationalised and the cooperation with Russia is a priority here.

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