



As in many other countries much of the electricity in Sweden is based on nuclear power. Three of the biggest nuclear power plants are placed in southeast of Sweden, outside the city of Oskarshamn. In Oskarshamn the local newspaper Nyheterna is covering the production at the nuclear power plants, but also much of the discussion how to handle the waste from the plants. In order to produce nuclear power it is necessary to have uranium. That is why Nyheterna's journalists Fredrik Loberg and Mattias Rubin went to Canada.

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All surveyed had uranium in their bodies



Photo: Mattias Rubin

THE ORIGIN OF NUCLEAR POWER

In the town where uranium used in Oskarshamn nuclear power plant has been processed, nine local residents were tested.

The test results showed that all nine had industrial uranium isotopes in their bodies.

- We want more people, especially children, to be checked Andrew Johncox says.

After 23 years as an engineer working with the uranium process he has got prostate cancer.

In september-october 2009, we continue to Port Hope. It is a town in the eastern of Canada, and it is about the size of Oskarshamn. Port Hope is three time zones from the mining areas in Saskatchewan and located just beside the busiest highway in Canada, between Toronto and Ottawa. Port Hope is a popular excursion place for people from big cities. Especially nice fishing in Ganaraska River attracts many city dwellers.

Port Hope has become known also because of another reason. No other city in the world has such a long history of nuclear facilities and therefore Port Hope has much radioactive waste to take care of.

Representatives from OKG company have during 2009 and beginning of 2010 told us that a large proportion of the uranium used in the Oskarshamn nuclear power plant has been processed in Port Hope. After the mining in Saskatchewan much of the uranium to be used for example in Europe has been processed outside the small town Blind River, then driven in large cylinders to Port Hope. Uranium to eventually be used in a nuclear power plant also has to be converted one more time, and this process is done in the middle of Port Hope.

- There was a beautiful beach here before, John Morand Says.

- A dangerous facility like this should not be placed in the middle of a city, and definitely not close to a large lake.

John Morand has worked as a lawyer and has been responsible for an international institute of economic development, working in Washington and St Petersburg. Now he lives in Port Hope, almost next door to the conversion facility.

- I had a positive attitude to nuclear power as an energy source, he says.

- But now, when I learned much more about what's behind, I am very critical to the process.

- There is so much that people don't know, John Morand says.

Too many questions

A few years ago he founded one of the local community organizations which is critical of the nuclear industry in Port Hope.

It is called FARE, Families Against Radiation Exposure. John Morand thought there were too many questions to ask about the uranium industry's plans for a new process to re-use enriched uranium in Port Hope. After hundreds of critical questions from FARE, and other organizations and concerned citizens about health risks and technical implementation the industry's plans were finally cancelled. Cameco has after this invested more resources to appear in a positive context in Port Hope. Among other things, the town's theater now uses the nuclear company's name, as well as a gymnasium in a recreation centre in Port Hope because of donations.

- I think it's good that the company is trying to do something for the residents here, John Morand says.

The Port Hope Community Health Concerns Committee, PHCHCC, is another organization worried about the health of residents who live without a buffer zone from the local uranium emissions. In 2007 this organization asked John Morand if he want to be tested if he had uranium in his body or not. He said yes. John Morand thought the Uranium Medical Research Centre in Toronto would not find industrial uranium in his body. But the laboratory did.

- I was extremely surprised, even if it was not large amounts. I have not worked with the uranium process, and have only lived here for eight years.



When I did these tests, I certainly did not think that I would have uranium left in my body.



Approximately 300 locations in Port Hope have been identified as contaminated by the uranium industry.



- I nearly died, says Dan Rudka.



The plant where the uranium to OKG for decades has been upgraded is almost in the middle of Port Hope.



- I have problems with my heart. If it is because of this I don't know. It would be reasonable, of course, that the authorities will do major health studies here, but it seems they are not interested in this, John Morand says.

Andrew Johncox has also been tested. He worked with Cameco predecessor, Eldorado, in Port Hope 1968-1982. He had some responsibility in a process of developing a new, more efficient conversion method that would minimize the emission of pollutants and gases.

- When I made these tests, I was certain that I had no uranium in my body, because I haven't been in the plant for 23 years. But I had what they told me one of the highest rates of industrial uranium measured in a human being 23 years after exposure in the workplace, Andrew Johncox says.

- I guess it is because the long life of uranium, so these substances remains in the body a long time, probably all my life. I don't know what this means for my health, he says.

- I am most disappointed with the authorities. Still today, there are really no rules for how much uranium particles may be released into the air in Canada. It is absolutely incredible!

Andrew Johncox got prostate cancer after his years in the plant. The cause of this will probably never be proven. He has no right to financial compensation from the Canadian State.

Nearly died

Dan Rudka has not received any compensation either. A few years after he completed a 53-week period of employment at a nuclear plant in Port Hope he nearly died. Among other ailments Dan suffers skin changes, intense pain, a very bothersome lung disease and weakened immune system. He has been treated by doctors at various clinics. Around the year of 2000 his lung function was so bad that continuous oxygen supply was necessary. In recent years he is a little better, but can not walk longer distances.

Dan Rudka is also one of the nine tested persons in Port Hope. He also has industrial uranium residues in his body. 15 years have passed since he worked at a uranium industry facility in the city.

- We mixed uranium fuel powder with other powder and used a snow shovel!
- You could see the dust from the uranium. The worst thing was that most of the workers did not even have a mask to protect their faces, Dan Rudka says.

As it is now proven that he has uranium isotopes in his body Dan Rudka is hoping to initiate a process for compensation for the diseases he believes that he suffers because of his former work.

- Money is not the important thing to me. The important thing is receiving an acknowledgment of what has happened to me. It would also be important for others in similar situations in the future. I know several former workers who also became sick in different ways, Dan Rudka says.

When the research results were published in the media 2007 Cameco and the authorities said the test results were not approved.

Also many Port Hope-citizens were displeased with the publicity. They found the health investigation only resulted in unnecessary anxiety and decreased tourism, and some people held a small demonstration in the city. Also Mayor Linda Thompson stated there are no health concerns in Port Hope.

Investigations done by the regulator Canadian Nuclear Safety Commission, Health Canada and at the municipal level has shown that residents of Port Hope will not suffer more disease than others, Linda Thompson says in Canadian national television.

Has not approved

The authorities, which focused their studies on a number of cancers, has not approved the analysis made by the contracted laboratory (Institute for Mineralogy, J.W Goethe University in Frankfurt) of the nine people in Port Hope.

- But this work was done by internationally recognized scientists, with a methodology previously published many times and peer reviewed by the European Association of Nuclear Medicine, Faye More says. She is chairman of the Port Hope Community Health Concerns Committee which took the initiative to contact Uranium Medical Research Centre in Toronto and arrange the health tests.

- It is obvious that the authorities must do bigger health studies including much more people.



Pat Lawson believes that the big clean-up becomes difficult. - Despite all the money spent I do not understand how it would be done, "she says.



To have both the uranium industry plants and waste near by has brought many negative consequences, says Sanford Haskill.



Jon's and AJ's way to school is right next to areas where large amounts of radioactive waste at one time have been placed.



The uranium is transported through large parts of Canada.

- We are a volunteer non-profit organization and are limited in our ability to raise the money necessary to test large numbers of people, Faye More explains.

- The fact that no level of government has never done this type of testing or will do it tells us they simply don't want to know the truth.

During our time in Port Hope we meet another ten persons who talk about themselves and their families affected by various forms of extraordinary diseases, and that it is hard to explain the causes. Everyone is disappointed by the lack of support, particularly from the authorities.

Instead a large decontamination in the entire town of Port Hope is planned, financed by the state of Canada. One of the largest of its kind in the world. In this small town where much of the uranium used in Oskarshamn have been converted over the years, too high levels of radioactivity have been measured at more than 300 different places. Most locations are not known to the public.

260 million Canadian dollars has so far been allocated for the decontamination. According to a representative of the funder, Natural Resources Canada, the total amount of taking care of all the waste could end up at as much as 1-2 billion dollars. Then this means between 7 and 14 billion Swedish kronor.

One question is how many millions or billions it would cost to move the conversion facility from the lakefront, which John Morand and several others have suggested because of emissions and security concerns.

Already a school in Port Hope, where too high concentrations of radon has been found, has closed and many other places in the town are forbidden to enter.

Sandra Homes, who is working hard with the decontamination project, Port Hope Area Initiative, is very positive about what will come out of it.

- I really believe that it is possible to do this properly, Sandra Homes says.

- Much people are looking forward to finally get a solution of this, she says.

Difficult to implement

It will take a few more years before the clean-up can get started. At several public meetings for example PHCHCC, FARE, Cameco, police and other authorities, are involved in workshops, giving their comments and suggestions about the clean-up. Pat Lawson, who has lived all her life in Port Hope and now reached the age of 80, thinks that the initiative is well-intentioned. But she believes that the clean-up will be difficult to implement.

- In spite of all the money spent I do not understand how this could be possible, when you look at the geography here, Pat Lawson says.

She says because of the hills in Port Hope the water in the ground will lead the waste to other areas in the city.

Helen and Sanford Haskill says the same thing. They have a farm just a few kilometers outside of Port Hope. There are plans to put waste from the clean-up in areas close to where they live, not far from small rivers. The nuclear industry in Port Hope has for nearly 70 years placed the radioactive residues in the vicinity of Haskills land. Now is the idea to put more waste there. Much more.

- More than 20 of my parents' cows and calves died when they drank from a creek in the late 1950s, Sanford says.

The family received compensation from the uranium industry at that time, he says.

- But only for the animals that died. If this happened today my parents would receive a large compensation. The animals that survived were moved to another area, Sanford says.

Having both the uranium industry plants and waste next to their doorstep has already resulted in many negative consequences, Helen and Sanford Haskill explains. The value of their property has been reduced.

They believe there is no one who wants use their land in the future. Some years ago Helen and Sanford discovered a pipeline from one of the waste places. From the pipe water was leaking into Lake Ontario.

Helen and Sanford got the water tested. It contained elevated levels of both arsenic and uranium. This was told in a Canadian TV-program about the situation in Port Hope.

At one of the places in the middle of Port Hope where low-level radioactive waste has been buried in the ground for many years we meet, by total coincidence, two 15-year-old boys. It is Jon Foster and AJ Walsh. Every day back and forth from school they pass a few of the forbidden areas. At the fence around there is a sign saying "Danger".

- In the beginning I was a little scared to walk here. I walked in the middle of the road. We don't know how dangerous it is, Jon Foster says.

- Eventually you stop worrying, but it doesn't feel good. There is so much poison in this town.

Jon, AJ and many other young people in Port Hope often talk about uranium and nuclear power.

- It's really sad that our city is famous for this uranium industry, and what it causes. I think I will move out of here when I grow up, Jon Foster says.

Will keep on fighting

Pat Lawson and her husband Tom don't have plans like that. They will stay in their big, old house placed just between two of Camecos facilities in Port Hope. And they intend to keep fighting against nuclear power.

- People say nuclear power is good for stopping the climate change because it's not producing a lot of carbon dioxide. But then they don't think about the extremely long process and all the steps from mining to electricity production, Tom Lawson says.

He doesn't agree with friends of nuclear power saying nuclear energy, despite the long journeys for the uranium, is the best energy source for the environment because of its unique energy intensity.

- Looking at the whole process, it is no doubt that nuclear energy is the energy source that causes the greatest problem of all. Think of all the trucks transporting the uranium, he says.

- You see, nuclear power is so complicated and people simply do not have time to learn what this is about. But I have lived with this industry for a long time and have seen what it means, Pat Lawson says one day in October 2009.

She and other Port Hope-residents planted a Japanese cherry tree in a park in Port Hope between the City Hall and the Ganaraska River.

We were a group of people wanted to commemorate the victims of Hiroshima and Nagasaki because the uranium producing nuclear bombs were processed here in Port Hope. We want to say sorry to the people of Japan, Pat Lawson says.

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