

## **PSC Severodvinsk Trip**

**September 23 – October 5, 2010**

### **Sub Dismantling/Nuke Waste Disposal Report**

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(Note: Since John Brissette compiled a fine and otherwise comprehensive report on the events of our trip together, this present effort only covers events of which I was the primary US participant, along with some general comments on the goals and results of the trip.)

As an environmentalist with a focus on nuclear waste and military hardware and toxics issues, as well as a veteran of previous P/S Connection efforts, I had the goals on this trip of connecting or reconnecting with Russian environmentalist counterparts and obtaining an update on decommissioning of retired submarines and nuclear waste handling in Severodvinsk. My interest and background on other issues of energy development, solid waste and water quality would also be used to inform our joint discussions on those issues in meetings with city officials, educators and activists. Within the constraints imposed on us by the schedule of events as well as the authorities in charge, I was largely successful on the latter goal in being able to report tremendous progress in getting nuclear waste secured and out of Severodvinsk's vicinity, yet efforts at linking with local environmentalists were less successful and in need of greater follow-up.

The first event during the trip in which these issues would be broached was in the meeting with researchers of the Institute of Ecological Problems of the North, an arm of the Russian Academy of Sciences in Arkhangelsk, on Monday, September 27<sup>th</sup>. In a general presentation on their work, we were informed of their Lab of Ecological Radiology's work on determining baseline levels of radioisotopes in the environment of the White Sea region. From my previous understanding of Russian disposal of naval nuclear materials in the region, this appeared as a promising step in potential accountability. In response to a question on cooperation with government/military authorities, they said the research was an open process and that they had a good working relationship with Russian and neighboring government agencies.

In less formal conversation with staffer (and translator) Nicolay Larionov over tea afterward, I found out that they had produced maps of these radiation levels around the region, and got a commitment to have them sent to me via email. I have subsequently been in touch with Nicolay and he sent an image of a presentation poster with some of these maps. In subsequent (though all too brief) conversation with PSC veteran activist Alexi Klimov at our farewell party, he seemed pleased that Russian institutions were taking on this work, as opposed to foreign groups like Bellona Foundation from Norway.

On Tuesday, September 28<sup>th</sup>, after a long day of tours of the city landfill, commercial recycling center and the city museum, we got a presentation by staff of the "Information Center" on radioactive materials issues, set up in 2007 by the Green Cross Russia organization. Their prepared presentation focused mainly on public information events and student programs, including hearings held on a radiation monitoring program going into effect later this year associated with the decommissioning of submarines, but they did also include an overview of the submarine dismantlement program.

Since the Nunn-Lugar Act funded program began in the early 1990s, 30 nuclear powered submarines have been dismantled at their shipyard, including 2 Oscar II class and 2 Typhoon class (the world's largest and most threatening, costing \$10 million each to dismantle), out of 128 in need of dismantlement around Russia. Other sub scrapping has been done at Murmansk and Vladivostok (with a total of 120 done as of 3/09, according to Bellona Foundation), so the “backlog” of retired subs appears to have been largely eliminated. In our brief “drive-by” of the shipyard the next day on the way to Yargri Island, I did notice one rusty-looking sub docked there, though I wasn't able to follow-up with anyone about its status.

In response to my further inquiry about the decommissioning program, Vladimir Vashenko (radiation hygienist with the shipyard, PSC member and affiliated with the Information Center) gave a more detailed description of the program, accompanied by slides of the process. The low-level waste generated in the process is loaded into the cut up reactor compartments, which are hermetically sealed, made seaworthy and towed to outlying naval bases, eventually to be interred in pits at the old nuclear test site in Novaya Zemlya in the far north Barrents Sea. He claimed that the compartments meet strict requirements to remain sealed for 50 years. He explained that the spent fuel is removed, put in casks and taken by train to Siberia (presumably the Mayak facility in Chelyabinsk). I pressed him on whether the stockpile of spent fuel was really removed, and he described past problems with shipments, including a sub-standard train bridge from Yargri Island which the waste had to be carried over (and which I subsequently found out that Canada had chipped in \$15 million to replace), but insisted that all the old waste had been removed, with the last shipment having left this spring.

While we had limited time for follow-up questions in this meeting and didn't get to discuss radiation monitoring or exposure issues at all, I was able to further quiz Vashenko on the waste issue at our farewell gathering. He explained that they had picked up the shipment pace in recent years, sending 3 shipments a year with each carrying 1-2 subs-worth of fuel (depending on the class/number of reactors). He further explained that they were now trying to ship the waste as they received it, to which I remarked that that approach was what our shipyard has been doing as well (since the mid-1990s, when the whole naval fuel program was opened to greater scrutiny after the State of Idaho objected to current practices), so perhaps we are finally “on par” with respect to each other's naval nuclear waste handling – at least as far as Portsmouth and Severodvinsk are concerned..

In the afternoon of Wednesday, September 29<sup>th</sup>, we participated in a “round table” discussion on environmental issues at the Knowledge Center. In addition to a reporter from a local newspaper and staff of the Knowledge Center, we met Vyacheslav Chatuntsev, founder of the Severodvinsk public environment council and a member of Green Cross Russia, the one NGO environmentalist we were to encounter on the trip. Unfortunately, beyond introductions and the usual questions about our interests and impressions, we weren't able to get too deep into current environmental issues. Between time needed for translation and a tight event schedule, we again didn't have time for extended discussion.

Given the limited contact we had with non-governmental environmentalists during our trip, it's uncertain at this point what options we have for further environmental exchanges. A proposal by Dima Ryzhikov for a joint environmental photographic exhibit is promising, and could be coupled with student projects in both communities. We were very impressed with the breadth and detail included in the presentations given to us (in very good English) by Katya Boikova's students, and their work might serve as a basis for the project at their end. It would be worth pursuing other contacts on the Severodvinsk environmental council as well, perhaps through Dima or other PSC members, to learn

what other issues they are dealing with.

Despite the limitations of our schedule and frustrations with questions/information lost in translation, it was great to see many of my both long-time and recent acquaintances from Severodvinsk in their native “habitat.” There is no better way to create lasting bonds across continents than sharing good times and personal experiences in each other’s communities, and those growing connections will no doubt serve our organizations well as we plan future phases of this program.