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"Recycling" Nuclear Waste

Nuclear or radioactive waste recycling has several meanings. The terms have been used to refer to reprocessing of irradiated ("spent") nuclear fuel. Another meaning is use of plutonium and highly enriched uranium to make nuclear power reactor fuel (MOX i.e. mixed oxide fuel). NIRS is actively campaigning against these practices in the U.S. and internationally.

Here in Stockholm in the Baltic Sea Region, I will focus on a third meaning of recycling nuclear waste: the poisoning of everyday materials with radioactively contaminated wastes from the nuclear power and weapons fuel chain. Two of the three known facilities in the world that routinely process and release radioactive metal from nuclear decommissioning activities are located in this region, in Sweden and in Russia.

As nuclear reactors and weapons sites close down, enormous amounts of radioactive metal, concrete, asphalt, soil, plastic, buildings, equipment, chemicals, and more need to be dealt with. However, licensed storage is expensive and space is more limited than the nuclear generators would like.

There is no storage that can isolate radioactive wastes from the environment for as long as they are hazardous, but the expectation of the public is that an effort is made to prevent the release of these radioactive materials. The non-solution to this situation is to sell the waste to make money rather than to spend money in an effort to protect the public and isolate the wastes.

Major efforts have been undertaken by the nuclear industry, the so-called regulators and the international radiation promoting agencies such as IAEA, ICRP, OECD NEA and EURATOM/EC to deny the danger of dispersing large volumes of radioactive materials. Computer codes have been devised and false claims about acceptable doses have been perpetrated and circulated to give the impression that nuclear waste is being safely taken care of, but it is not. Dispersion starts here in the Baltic Region and it can be stopped here.

In the U.S. we have been fighting every agency's efforts to legalize selling nuclear waste for commercial purposes. We appeal to our allies in Europe and elsewhere to join this battle, which was waged here years ago but is currently not well known.

Two of the world's few radioactive waste metal recyclers are Studsvik in Nyköping, Sweden and Ecomet-S across the Baltic Sea in St. Petersburg. These companies are recycling radioactive metal from nuclear power and other facilities and selling them to companies for use in a wide range of products.

In the U.S. we have been fighting hard to stop these practices. Several companies have licenses to process and release radioactive metal in the U.S. We believe that pressure from the public and metal industry are preventing wholesale unrestricted releases. Three of the U.S. companies, ToxCo, EnergySolutions (formerly Duratek) and Aerojet (which processes

depleted uranium), have Metal Melt licenses from the State of Tennessee. The U.S. federal government has not been able to make rules via democratic public processes to generically deregulate nuclear wastes. The only way they are able to do it is secretively through exemptions and license amendments. There is a U.S. Department of Energy (DOE) ban on the commercial recycling of nuclear weapons wastes. However, as metal prices rise, there is growing pressure from DOE sites where the metal is stored to overturn or circumvent that prohibition.

Only the transportation regulations have adopted the IAEA exemption levels for radioactive recycling, and this was done while denying that the purpose was to deregulate nuclear wastes. The false claim was made that it was to "harmonize" and update the transport regulations, which were developed in Europe to make it easier to ship nuclear waste to unlicensed destinations.

I would like to discuss the ways nuclear waste is being "let go" and ask for assistance from my colleagues in Europe in establishing ways to stop and reverse the unnecessary releases of nuclear metals and other materials into commercial recycling, everyday household items and industrial projects, homes, cars, baby toys, zippers, belt buckles and frying pans.

From an economic perspective, when considering new nuclear power, it is essential to factor in the inestimable costs of truly managing all of the contaminated resources that result from the nuclear fuel chain. Allowing all of this material to be recycled into commerce or dumped as regular trash threatens our health, the economies of legitimate (non-radioactive) recycling industries, and externalizes the real costs of nuclear power.