

A few years ago, a leak problem emerged in the plastic pipes owned by Vodokanal, the St. Petersburg firm that is the equivalent of a municipal water board. Closer inspection of the leaks revealed that they were caused by breaks in the butt welds where the polyethylene pipes are joined together.

Vodokanal first suspected that the pipes were faulty, but more careful inspection revealed that the problem stemmed from the welding methods used.

“We offered to help Vodokanal resolve the problem with training, as we have the necessary welding expertise,” says Tapio Alanen, marketing manager at KWH Pipe Technology.

The first butt-welding course arranged by KWH was held in late 2006, and three of the three-day courses have been held for Vodokanal welders so far, with 15 people taking part in each.

#### **STRICT THEORY AND PRACTICAL WELDING EXERCISES**

The principal instructor on the welding course was Hannu Heikka from the Hyvinkää-Riihimäki Vocational Adult Education Centre, who has been training welders for over 20 years. Heikka has three assistant instructors and an interpreter to help him.

“The syllabus first covers the theory side, which deals with the study of materials, properties of plastic, pipe manufacturing technology, dimensions and markings, and the standards used in different countries. We also go through butt-welding techniques and delve into welding equipment and maintenance, and welding-pressure tables,” explains Heikka.

The second day of the course is used for various pipe-welding exercises followed by instruction in the use of welding tables and welding-equipment reporting units. In the evening, there is a strict theory exam to see whether the students have taken in the subjects studied on the first day. According to Heikka, the students have to take the theory side seriously in order to pass the exam.

## KWH Pipe organizes welding courses in St. Petersburg, Russia

# Training for Vodokanal welders

**KWH Pipe Technology is training welders at the St. Petersburg water company in butt-welding, to teach them how to weld to European standards. Besides a demanding theory section, the course syllabus includes practical welding exercises.**

“On the third day, there is an opportunity for the students to show what they can do. Each of the participants welds their own section of the sample pipe to produce a long pipe full of butt welds. The climax of the course is the tense moment when a pressure test is carried out on the pipe and the water pressure in the pipe is built up until it bursts. The students brace themselves to see where the pipe eventually fails – at one of their welds or at some point in the pipe itself. So far, the joints have not failed once,” says Heikka with satisfaction.

Each of the students is given a personal certificate with a number which they write beside every welded joint they make at work from that moment on. This means that all welding work is traceable.

#### **CLEANLINESS IS VITAL**

“The most important thing the students learn is that cleanliness is vital. Problems can be caused if the ends of the pipes are dirty or greasy. I also emphasize that good equipment on its own is not enough; whether or not you get a good result depends on the skill of the welder,” Alanen points out. •

