Technologies and methodologies for reducing gas losses of the Central Asian gas transit system
Project Final Conference, Brussels. 13 October 2009

The final conference of the INOGATE Project: “Technologies and Methodologies for Reducing Gas Losses of the Central Asian Gas Transit System”, was held in Brussels on 13th October 2009. The conference was attended by a wide range of representatives (over 70) including (apart from the project team), representatives of the EC, ITS, INOGATE County Coordinators, representatives of the beneficiary countries, representatives of the European Gas Industry and other partner institutions.

The Conference was chaired by Mr. J. Piper (Directorate General RELEX). The introductory speech of Mr. F. Bensarsa (Energy Counsellor, Directorate General RELEX), who stressed the contribution of the project to an overall energy security issue of gas supply to EU, followed by the speeches of Mrs. P.A. Marques (Head of Unit, Directorate General TREN) and Mr. M. Ronconi (Programme Manager, Directorate General EuropeAid).

The Project Director Mr. J. Bacharach (WYG International) presented the project outline, the summary of the project’s actions and the achieved results. The project team carried out baseline inspections in the 4 pilot areas (in 4 beneficiary countries: Kazakhstan, Uzbekistan, Kyrgyzstan and Turkmenistan) jointly with national specialists. For this purpose a specially equipped jeep had been acquired. Using the detection equipment installed on the jeep and with the help of volumetric equipment the project team managed to survey about 700 km of pipeline across 4 countries. The results of the survey were astonishing, revealing 33 significant leaks representing 9.3m. m³ gas loss per year (about $1.4m). Moreover, during the leak measurements in the area of compressor station which includes 24 parallel units, 53 leaks were found. The total volume of gas losses detected there amounted to 13,000 m³ per year, equivalent to $ 2m. annualcost. It is interesting to note that before the survey took place the beneficiary companies were not aware of the existence of any gas losses in the examined areas. Finalizing his presentation Mr. Bacharach outlined the benefits of the project to the beneficiaries. Using low-cost techniques it is possible to detect a significant amount of gas losses, and from the findings of the project, it is obvious that there is a huge potential for leakage reduction and environmental, safety and economic gains in the Central Asia gas transit system. He also noted that the beneficiary gas companies are already acquiring similar equipment and are taking actions in order to reduce the detected losses.

Of particular interest to participants was the presentation of Mr. S. Narimanov, the Team Leader of the project; he presented the techniques that were used in the pilot areas including the detection and volumetric measurement equipment. He referred in particular to the challenges faced by the project when crossing the boarders of 4 countries many times with all the equipment.

Mr. R. Graham, the key expert of the project, presented the internet based Leakage Data Base, which was developed by the project. The developed data base enables beneficiary operators to manage and collate information on gas transit system leakage. The data base was established after a thorough review of various Incidents and of leakage databases implemented by gas operators worldwide, with identification of the
requirements laid out in an EGIG (European Gas Incidents Group) Framework document and in close consultation with the gas companies of the beneficiary countries.

The session ended with the discussion amongst the participants. Mr. Vardanyan (INOGATE Country Coordinator, Armenia) addressed the issue of electricity exports to the EU he particularly was interested whether in the EU had performed any cost analysis studies on electricity produced from the gas in Central Asia region and then exported to EU.

The representative of Marcogaz (Mr. A. Cigni) raised the question of whether a similar project is going to commence in Caucasus and Eastern Europe regions. He also asked whether the proposed Leakage Data Base is available to the general public through the internet. (It is in fact closed to all but the beneficiaries).

Mr. A. Holroyd, the representative of the International Organization of Gas Producers, raised the issue of the type of damages that most often cause the gas leakages. As the project team noted the most typical damage results from corrosion.

During the next session the representatives of the beneficiary countries presented their views on and lessons learnt from the project.

Mr. A. Jabasov, (JSC InterGas Central Asia of Kazakhstan) made a first presentation. After outlining the present activities of the company and describing the structure of the of gas transportation system of InterGas Central Asia JSC, he referred to the current situation on the gas leakages mentioning the findings of the project (generally in 4 pilot areas) and in the Kazakh gas compressor station (Makat). As regards the gas compressor station, the volume of the detected gas leakages (about 13,000 m³) and the corresponding cost (about $2mln) were itemised.

He then described in detail the techniques which have been adapted from the project and are currently used in detection, metering and prevention of gas leakages. A part of his presentation was devoted to the processes of gas detection and reduction that were taking place in the company before commencement of the project.

In the following presentation Mr. Djusupov (OAO Kyrkazgaz, Kyrgyzstan) shared with the participants the experiences from the project. He provided the concrete results of the project in the Kyrgyz pilot area. As he mentioned, within the framework of the project the gas transit system in the north of the Kyrgyz Republic was inspected for gas leakage detection with the help of project experts, including the main pipeline the compressor station and gas metering and reduction stations. In the gas transit system were found 17 gas leakages and in the compressor station (Sokuluk) the number was 39, making in total 1 428 000 m³ of gas losses. Finalising his presentation Mr. Djusupov referred to the actions taken currently to repair the detected leaks, mentioning particularly the methods used. A good indication of the benefits of the project was the fact that KyKazGaz specialists inspected the Bishkek-Kant-Tokmak gas pipeline branch for leakage detection using equipment supplied by the Project (Remote Methane Leak Detector) and detected 14 gas leakages.

The representatives of UzTransGas (Mr. B. Eshmuratov, Acting First Deputy General) in his presentation speech referred to the lessons learned from the project and appreciated the work of consultants. He particularly mentioned the benefits of the methodology on low-cost techniques used in detection of gas losses, training, and seminars performed with the company’s staff. He finally noted that the EC projects bringing concrete results, as was the case with the project “Technologies and Methodologies for Reducing Gas Losses of the Central Asian Gas Transit System”, are highly appreciated by the beneficiaries.

The representative of TajikTransGas (Mr. S. Sharofidinov,
Chairman) in his brief speech noted that although Tajikistan participated in the project just as observer the specialists of TajikTransGas had the opportunity to attend the training sessions and seminars which were very interesting and instructive. He also pointed out that TajikTransGas will try to obtain similar equipment to that used by the project team.

The session was finalised by the presentation of Mr. Berdyklychev (Turkmengaz, Turkmenistan). He briefly presented the activities of Turkmengas referring also to the Turkmen gas industry, strategies of the government, ongoing gas projects and the future perspectives in gas exports to the East and to the West. He then addressed the successful cooperation of the company with the project "Technologies and Methodologies for Reducing Gas Losses of the Central Asian Gas Transit System". It was mentioned that within the framework of this project 3 workshops have been delivered, in which the Turkmen specialists from the administration office and production enterprises participated. Most importantly, it was mentioned that the project provided the no-cost supply of appropriate machinery (cars) and equipment totalling €500,000. As Mr. Berdyklychev noted the specific results of the project include the sufficient and sustainable opportunities provided to the local specialists to develop and apply technologies and methodologies at the local level and acceptance of operating systems on the basis of reliability criteria.

In questions following the presentations the representative of Marcogaz (Mr. A.Cigni) was interested in the experience of beneficiary countries in process of handling the cut out of parts of pipeline to be replaced. Another question addressed by the EC representative to the Turkmengas representatives touched the issue of the Turkmenistan gas pipeline explosion in April 2009.

In the final session of the conference, a presentation was given by Mr. Webenbock (Operations Manager, OMV Gas GmbH, Austria) on the approach of OMV to gas losses minimisation. First the structure of OMV Gas was presented in brief. Then Mr. Webenbock addressed the issues of main sources of gas losses occurrence and the ways of mitigation of gas losses during the normal operation of the gas pipeline. The particular attention of participants was drawn by the interesting visual video-presentation of the mitigation of gas losses during the pipeline intervention, which included the latest techniques such as mobile flare, mobile compressor and smart plug.

During the discussion followed, Mr. Berdyklychev (Turkmengaz, Turkmenistan) addressed a question to the EC representatives asking to explain the reasons of reduction in gas consumption in the EU by 30% this year.

The Conference was closed, after conclusions made by Mr. F. Bensarsa. He outlined to the participants the meaning of the EU-Central Asia Common Strategy. He particularly noted that Central Asia region is a good supplier of energy for the EU while the EU is a best energy market for the Central Asian energy producers. He also mentioned that the EU Industry should be more involved in cooperation with the Central Asia region.