

Roman Karaś, director of SNC-Lavalin Polska Ltd.

## PATNÓW II General Contractor

SNC-Lavalin is one of the world's leading engineering and construction groups and a major player in infrastructure ownership and the provision of operations and maintenance services.

Founded in Montreal, Canada in 1911, SNC-Lavalin has been active internationally for over 50 years, building a multicultural network that spans five continents. It has offices across North America and in 35 other countries around the world. Together, its employees speak over 50 languages and represent 80 nationalities, and are currently working in some 100 countries.



SNC-Lavalin's Power Group has nearly 100 years of experience in more than 120 countries. Its areas of activity include hydroelectric, nuclear and thermal power generation; transmission and distribution projects; energy control systems and training. Its projects represent an installed capacity of nearly 250000 MW, over 90000 km of transmission and distribution lines, and some 1500 substations. As well as designing and building power production and distribution plants, SNC-Lavalin owns, operates and finances power facilities and infrastructure.

SNC-Lavalin Thermal has successfully installed over 60000 MW in thermal power projects worldwide. The operations of the Group provide the full scope of services, from planning and feasibility studies, through engineering, procurement and construction (EPC/ EPCM), to commissioning and takeover for operation. Its headquarters are in Bothell, Washington and it has offices in Vancouver, Montreal and Warsaw. The Group's expertise includes designing and building steam and gas power plants from 25 MW to 2150 MW; alternative fuel projects using biomass, tires and municipal waste; coal fired steam and fuel oil power stations, power plant modernizations and fluidized-bed combustion plant design.

The Group has completed more than 85 EPC power plant projects, earning it a leading position in the fields of heat and power projects, and the application of alternative fuels.

## ■ The Patnów II Project

Elektrim Megadex S.A. began the Patnów II project in 2000 with the demolition of two 200 MW oil fired units. The erection of the new Unit A began in January 2002 and continued until April 2003, when work was stopped due to financial problems at Elektrim S.A.'s mother company, which prompted loaners to withdraw their financing. At that point, the majority of the foundations and steel structures for Patnów

had been completed and most of the equipment had been purchased, some of which was delivered and standing idle on the site.

The new owner of Patnów II Power Station (EPII) invited proposals for the completion of the project. At the end of 2005, SNC-Lavalin was awarded the contract because EPII thought it would be the company most capable of restoring good relations between the original main suppliers and subcontractors, giving them the assurance they needed to reorganize their activities and complete the project.

SNC-Lavalin completed EPII, a world-class, high efficiency coal power project with low emission levels, gaining the required experience to execute similar projects

SNC-Lavalin managed to finalize negotiations and transfer part of Elektrim Megadex's staff working on the project to SNC-Lavalin Poland, its local company. The boiler passed the pressure test on July 17, 2007. First ignition took place on September 15, 2007 and on December 23, 2007 the Patnów II Power Plant's new unit achieved its full capacity of 464 MW. Now ready for commercial operation, EPII is a world-class, high efficiency coal power plant with low pollution emission levels.

## Further Opportunities

With the EPII project successfully completed, SNC-Lavalin now has a group of specialists in the centre of Europe able to execute other projects in the region.

"EPII has given SNC-Lavalin valuable experience in Eastern Europe's growing power market; we have gained a better understanding of project execution mechanisms in the region, and of local suppliers and contractors who can help the Company win and successfully complete other projects. Some large projects have already been announced in the region and we are looking forward to participating in these and other ventures in the coming years" – Roman Karas – director SNC-Lavalin Polska Ltd.

## ■ The Polish Power Sector

The national power generating system has an installed capacity of approximately 34000 MW. Due to an increasing demand for electricity it has been operating beyond its capabilities, and power reserves routinely fall below admissible levels during peak hours. The main generating units in Poland, such as Połaniec P.S., were built in the 1970s and 1980s and, despite numerous modernizations in the mid-1990s, they have been in operation for over 30 years and their service life is coming to an end. Moreover, they are fired by hard coal, which creates CO<sub>a</sub> emissions. In fact, despite the European Union's severe regulations on CO<sub>2</sub> emissions, Poland will still be firing carbon dioxide producing fossil fuels, such as hard and brown coal, for the foreseeable future.

To maintain the efficiency of the power generating system and cover the fast-growing demand for electric power, existing units will have to be replaced by new units with higher capacities, efficiency levels above 40-45% and modern environmental standards. To meet the demand for electricity, it has been estimated that a 1000 MW plant will have to be built every year. In the next three years, Poland stands to meet only 60% of this requirement.

