Peter Eggleton (Consultant in Transportation Technology, Montreal) gave a short presentation on the status of the Canadian situation regarding locomotive emissions. As the Canadian railway sector is facing challenges similar to its U.S. counterpart, he floated the prospect of a collaborative cross-border ‘emission reduction technology development program’. He referenced as a model for the envisaged collaboration the 10-year, $10 million Track/Train Dynamics Program coordinated during 1975-85 by the AAR with U.S. DOT/FRA, Transport Canada and Railway Association of Canada as partners.

Mr. Eggleton explained that although Canada does not currently have any legislated standards for locomotive emissions, there has been in place since 1995 a Memorandum of Understanding between the Railway Association of Canada and Environment Canada for a Voluntary Monitoring Action to cap NOx and PM at 1989 levels through 1990 - 2005. For NOx, this is 115,000 tonnes per year for the approximately 3000 locomotives operating in Canada. In September 1999 following revision of the Canadian Environmental Protection Act, Transport Canada was given authority to set railway emission standards. It is currently examining various options. An influencing factor is that Canada has signed the Kyoto Protocol on Global Warming targeting to reduce by 2012, greenhouse gas emissions to 6 percent below 1989 levels.

Although not in a jurisdictional sense, the U.S. Environmental Protection Agency (EPA) standards promulgated in 1998 for locomotive and locomotive engine emissions do impact on the Canadian rail sector. The EPA standards have become, by default, the technical reference for Canadian re-manufacturers supplying Tier 0 compliant locomotives into the U.S. marketplace. Also, as owners of U.S. railroads, Canadian National Railways and Canadian Pacific Railways are responsible to EPA to ensure their U.S. subsidiaries comply. Similarly, owners of locomotives in Canada are motivated to install Tier 0 kits during re-manufacture so as to maintain the asset value for any re-sell option into the U.S.A.

The Canadian railway authorities are currently examining options regarding emission standards, establishment of a database on the Canadian fleet, compliance testing methodologies and definition of a emissions reduction technology development program. The U.S. DOE Workshop at Argonne National Laboratory was a timely opportunity for 10 Canadian attendees to be exposed to similar deliberations on the U.S. side of the international border. Roy Nishizaki of Transport Canada’s Transportation Development Centre, Montreal, is the Canadian contact for follow-up regarding collaborative activities.

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