

SEMINAR PROGRAM

WEDNESDAY, MARCH 29th

09:00 REGISTRATION

10:30 OPENING SESSION

- Opening speech, by the First Delegate of Argentina to the World Road Association (PIARC), and currently Vice-General Administrator of the Argentine National Roads Administration, **Eng. Julio Ortiz Andino**.
- Speech of the President of the PIARC *C3.3 Technical Committee Operation of Road Tunnels*, and currently Research Director of the Centre for Studies in Tunnels (CETU) of France, **Eng. Didier Lacroix**.
- Welcome speeches by the Governor of the Province of San Juan, **Eng. José Luis Gioja**, and by Mr. Ricardo Cifuentes, Intendant of the IV Region of Chile.

11:15 Coffee Break

11:30 - Presentation of the World Road Association (PIARC), by **Eng. Ada Lía González**, Chair of the Argentine Center of Road Technology Transference (CENATTEV).

- Presentation of the PIARC *C3.3 Technical Committee Operation of Road Tunnels*, by **Eng. Pierre Schmitz**, Chief Engineer for the Brussels Capital Region of the Ministry of Transport of Belgium, and French-speaking Secretary of the PIARC *C3.3 Technical Committee*.

12:15 **SESSION 1: NEW REGULATIONS FOR THE SAFE TUNNEL OPERATION, WITH FOCUS ON THE 2004 EUROPEAN DIRECTIVES.**

"Safety management in tunnels, focused on the European Directive 2004/54EC"

Eng. Rudolf Hörhan, Chief of the Tunnels Department in the Federal Ministry of Transport, Innovation and Technology of Austria.

13:00 WELCOME LUNCH

15:30 **SESSION 2: ASPECTS OF TUNNEL DESIGN DIRECTLY RELATED TO SAFETY IN OPERATIONS.**

"Impact of safety consideration on tunnel design: ventilation - escape route - particular conditions in mountain"

Eng. Bernard Falconnat, Director of Tunnels and Underground Works of SCETAROUTE, France.

"Aspects of tunnel design directly related to safety in operations"

Dr. Eng. Manuel Romana Ruiz, Spanish-speaking Secretary of PIARC *C3.3 Technical Committee*, and Professor of Field Engineering at the Polytechnic University of Valencia, Spain.

"Safety considerations in the design of La Pólvora Road Tunnels (Valparaíso Chile)"

Eng. Carlos Descalzi, Public Inspector, La Pólvora Tunnels, Valparaíso, Chile.

Eng. Ramón Ross Blondet, Associate Director Ingeniería y Desarrollo de Proyectos, Chile.

Eng. Christaki Mas'ad, Resident Advisor of Inspections La Pólvora Tunnels, Chile.

17:30 COFFEE BREAK

18:00 **SESSION 3: EFFICIENT AND SAFE OPERATION OF TUNNELS.**

"Basic tasks on tunnel operation"

Eng. Jean Claude Martin, Head of the External Controlling of Equipment, Centre d'Etudes des Tunnels (CETU) of France.

"Operation of the Cristo Redentor Tunnel at Los Libertadores International Pass"

Eng. Raúl Ramírez Torres, Chief of Tunnels Department of the National Roads Administration of Chile.

Eng. Héctor D. Rodriguez, Chief of the 4th District Mendoza, National Road Administration of Argentina.

THURSDAY, MARCH 30th

7:00 Technical Visit to the Cristo Redentor Tunnel, at Los Libertadores International Pass, province of Mendoza (Argentina) and Fifth Region of Chile.

FRIDAY, MARCH 31ST

09:00 **SESSION 4: EFFICIENT AND SAFE OPERATION OF TUNNELS.** *(Continued)*

"Management of Tunnels: Case Study of the Somport International Tunnel"

Eng. Rafael López Guarga, President of the Technical Committee on Tunnels, Technical Association of Roads of Spain. Project Director of the Somport Tunnel, facility of 8,6 km long, in the French-Spanish border.

"Smoke and fire control and ventilation systems in tunnels"

Eng. Arthur Bendelius, Expert in fire control on road tunnels. Specialist engineer of PARSONS BRINCKERHOFF, USA.

"Sub-Fluvial Tunnel Uranga-Sylvestre Begnis"

Eng. Ernesto Kuchen, Technical Director of Sub-Fluvial Uranga - Sylvestre Begnis Tunnel in Santa Fe, Argentina.

11:00 COFFEE BREAK

11:30 **SESSION 5: BASIC INSTALLATIONS TO PROVIDE SAFE OPERATION FOR LOW TRAFFIC TUNNELS.**

"Basic installations to provide safe operation for low-traffic tunnels"

Eng. Erik Norstrøm, Chief Engineer, State Roads Administration of Norway.

"Application of new safety criteria for tunnels in South America"

Eng. Martin Böfer, General Manager of GEOCADE, Chile.

13:00 LUNCH

15:00 **SESSION 6: HUMAN AND ORGANIZATIONAL ASPECTS OF OPERATION AND SAFETY IN TUNNELS.**

"Recruiting, organizing and training road tunnels operating staff"

Eng. Jean Claude Martin, Head of the External Controlling of Equipment, Centre d'Etudes des Tunnels (CETU) of France.

"Tunnel operation at the urban freeway Costanera Norte – The most important road project in Chile in the last 100 years"

Eng. Gonzalo Ardanaz, Planning and Operations Manager, Concession Society Costanera Norte. Santiago, Chile.

"Human behaviour influencing tunnel safety"

Eng. Evert Worm, Head of Centre for Tunnel Safety, Dutch Ministry of Transport, Public Works and Water Management.

17:00 COFFEE BREAK

17:30 **CLOSING SESSION**

Questionnaire.

Seminar Conclusions, by **Eng. Didier Lacroix**, President of the PIARC C3.3 Technical Committee.

Closing Speech, by **Eng. Juan E. Marcet**, Delegate from Argentina to PIARC C3.3 Technical Committee.

21:00 CLOSING DINNER