

Bolivia

Misicuni Tunnel Finally Holes Through

The world's most infamous and slowest tunnel in the Cordilleran Andes was finally holed through, 45 years after the project was first started surviving wars, elections, civil insurrection, lack of financing, and dispute between several teams of contractors and the client. Until finally the client took over the project, maybe a world's first. The project with over a kilometre of cover also faced endless difficulties throughout tunnelling with great rock pressure and squeezing ground, constant fallout, flooding, etc. After a jv of Condotte and Cosapi failed to complete the job within schedule, a new contract was signed with a jv of Astaldi SpA and ICE Ingenieros in November 1997. In April 2000, Astaldi-ICE filed for arbitration at the International Chamber of Commerce in Paris accusing Empresa Misicuni, the client, of having concealed geological information. They later lost in arbitration. Then in August 2001 Consorcio Astaldi-ICE's contract was extended by another year to 30th April, 2002 to complete excavation and to 11th March, 2003 for concreting works. Last January, Consorcio Astaldi-ICE decided to quit with only 500 m still to go, and to claim payment. On 21st February, Empresa Misicuni decided to finish the tunnel on its own, commissioning the last portion to The Robbins Company. More from ais@bo.net and www.tunnelbuilder.com, item bo/11. Also read E-News Weekly # 3, 9, 20, 23 & 27.

United States

Senate Approves Nuclear Waste Storage

Following the House of Representatives in May, the Senate approved on 9th July a plan to store much of the nation's nuclear waste beneath Nevada's Yucca Mountain, giving final legislative approval to a project discussed for nearly 25 years. Despite strong opposition from Nevada officials, Las Vegas' gambling business leaders and environmentalists, the Senate voted 60 to 39 to approve President Bush's finding that the \$58 billion project is "scientifically sound and suitable" and would enhance protection against terrorist attacks by consolidating the radioactive waste underground.

In the late 1980s, Congress allowed the Department of Energy to consider Yucca Mountain as the centralised site to collect and bury highly radioactive nuclear waste. As much as 70,000 metric tons of radioactive waste will be buried in desert tunnels northwest of Las Vegas. The Department of Energy still must obtain a license from the Nuclear Regulatory Commission to build and operate the repository - a process that could take four or five years - and face a series of lawsuits filed by Nevada state officials. Visit www.ymp.gov and www.tunnelbuilder.com, item us/70. Read E-News Weekly # 20.

World Digest Of Tunnels Under Planning

Australia. The New South Wales government has proposed a major road link in Sydney from Strathfield to Haberfield between the inner city road network and the M4. The M4 East motorway would continue the M4 from Strathfield through to the corner of Wattle Street and Parramatta Road at Haberfield. There would be a 3.5 km tunnel. Construction of the \$560 million link could begin within three years. Visit www.rta.nsw.gov.au and www.tunnelbuilder.com, item au/13.

Italy. A total of €87 million has been approved for lot 4 of the E78 highway between Grosseto and Fano. The 3 km-long lot 4 will be built in Mercatello sul Metauro, requiring 2.6 km of double-tube tunnel. The Due Mari Grosseto-Fano highway is a major link between two seas, the Tyrrhenian Sea on the

tunnelbuilder

E-News Weekly
No. 29 – 11th July 2002

- Projects under planning
- Up-to-the-minute news of bids and awards
- Informed comment on the state of the international tunnelling industry
- Complete spectrum of tunnelling activity
- Innovations and R & D
- Subsurface Development
- Renovation and maintenance
- Useful links

To subscribe to **E-News Weekly**, click on www.tunnelbuilder.com/eneform.htm, or visit the Sales section at www.tunnelbuilder.com and select **E-News Weekly** from the dropdown menu, or contact e-news@tunnelbuilder.com

Further details or advice on our news items may be given, when available, contacting research@tunnelbuilder.com

Published on Thursdays. 52 issues per year.

Copyright tunnelbuilder 2002. E-News Weekly may not be reproduced in hard copy without the prior permission of the publisher.

west coast in Tuscany and the Adriatic Sea on the east coast in Marche region. One noteworthy tunnel on the project is the 6 km Guinza tunnel as part of lot 2. To date, 4.5 km have already been excavated. A second bore is being discussed. Visit www.tunnelbuilder.com, item it/30. Lot 4 is also under build.

Pakistan. North West Frontier Province governor said that the long-awaited Lowari tunnel project, 8.5 km in length, will start in August and President Musharraf will lay the foundation stone. Funds for the project have already been allocated in the current financial year's budget. The client is the National Highway Authority. Visit www.nha.gov.pk and www.tunnelbuilder.com, item pk/15.

World Digest Of Bids

France. Open tendering, deadline 24th July, 2002 for rehabilitation of the northern branch of the Sébastopol sewer, lengths 1,022 m, cross section 1.9 m-3.6 m x 2.4 m-3.6 m, and 970 m, cross section 5.3 m x 3.6 m, in the 3rd, 4th and 10th districts of Paris. First is for works and second for technical assistance during works. Visit <http://ted.eur-op.eu.int/udl?request=Seek-Deliver&language=en&docid=101665-2002>, OJ S 130, or contact City of Paris, fax +33 142768710. Read E-News Weekly # 22.

France. Two open calls for bids published, deadline 24th July, 2002 for rehabilitation of the Vincent Auriol sewer and adjacent mains, 2.1 km, in the 13th district of Paris. First is for works and second for technical assistance during works. Visit <http://ted.eur-op.eu.int/udl?request=Seek-Deliver&language=en&docid=101660-2002> and <http://ted.eur-op.eu.int/udl?request=Seek-Deliver&language=en&docid=102007-2002>, OJ S 130, or contact City of Paris, fax +33 142768710. Read E-News Weekly # 22.

France. Two open calls for bids published, deadline 24th July, 2002 for rehabilitation of the Voltaire sewer, 1,966 m, cross section 2.7 m x 2 m in the 11th district of Paris. First is for works and second for technical assistance during works. Visit <http://ted.eur-op.eu.int/udl?request=Seek-Deliver&language=en&docid=102465-2002>, OJ S 131, and <http://ted.eur-op.eu.int/udl?request=Seek-Deliver&language=en&docid=102008-2002>, OJ S 130, or contact City of Paris, fax +33 142768710. Read E-News Weekly # 22.

France. Open call for bids, deadline 24th July, 2002 for technical assistance during rehabilitation works of the Gabriel-Saint Honoré sewers, lengths 2,400 m and 2,700 m, cross section 3 m x 2 m in the 8th district of Paris. Visit <http://ted.eur-op.eu.int/udl?request=Seek-Deliver&language=en&docid=102704-2002>, OJ S 131, or contact City of Paris, fax +33 142768710. Read E-News Weekly # 24.

France. Open call for bids, deadline 26th August, 2002 for control and inspection of the operating and safety equipment in the Montjézieu tunnel on highway A 75 in southern France. Visit <http://ted.eur-op.eu.int/udl?request=Seek-Deliver&language=en&docid=102010-2002>, OJ S 130, or contact DDE de la Lozère, fax +33 466494166.

Norway. Open bidding, deadline 19th August, 2002 for project administration of the National Library in Oslo. The project deals with the extension of an underground storehouse and an underground car park. Total capacity 9,000 sq m. Visit <http://ted.eur-op.eu.int/udl?request=Seek-Deliver&language=en&docid=97837-2002>, OJ S 125, or contact Entra Eiendom, Oslo, fax +47 21605101. E-mail dri@entraeiendom.no

Norway. Open call for bids, deadline 24th September, 2002 for road construction works on state road 661 in Skodje municipality in Møre og Romsdal county. The 3.6 km section requires to build the single 400 m Halsane tunnel to Stette, profile T8.5 cross section 47 sq m. The tunnel will be driven in gneiss using drill-and-blast. Support will be with shotcrete and rockbolts. The project has been designed by the local branch of Statens Vegvesen, the Norwegian roads administration. The tunnel will cost

NOK25 million (value 2001) and will be financed by Statens Vegvesen. Visit <http://ted.eur-op.eu.int/udl?request=Seek-Deliver&language=en&docid=103677-2002>, OJ S 132, or contact Statens Vegvesen, Molde, fax +47 71274101. E-mail halgeir.brudeseth@vegvesen.no and hilde.moltumyr@vegvesen.no

Spain. Open invitation to tender, deadline 29th July, 2002 to build the second ring road in Vigo, Galicia. The purpose of this second ring road, totalling 9.5 km, is to connect the first ring road, subsection Castrelos-Bouzas, with highway A-57 Puxeiros-Val Miñor. There will be a 260 m cut-and-cover tunnel in Valladares. The project is worth €86 million. Construction will take 28 months. Commissioning is scheduled for 2005. Visit <http://ted.eur-op.eu.int/udl?request=Seek-Deliver&language=en&docid=103245-2002>, OJ S 132, or contact Ministry of Development, Madrid, fax +34 915978537. E-mail cpublic@mform.es. Read E-News Weekly # 22.

World Digest Of Contract Awards

France. Communauté urbaine de Bordeaux has awarded to a jv of CSM Bessac, Sade, Sogea Sud-Ouest, and Soletanche-Bachy the construction of the 1 km-long Emile Counord rainwater sewer in Bordeaux, 2.5 m finished diameter. The tunnel will be bored through sand and gravels using a CSM Bessac boom head shield with compressed air-sealed working chamber. Lining will be with cast concrete segments. Another such shield will also be required for another project in Issy-les-Moulineaux near Paris (read E-News Weekly # 28). One launch shaft, one exit shaft and intermediate shafts for operation, ventilation and connection to existing surface utilities will also be built. Work will start this month with completion programmed for September 2003. Contract value totals €6.78 million, fully financed by the client. Visit www.bordeaux-metropole.com and www.csmbessac.com

United States. The City of Portland, Oregon expects to finalize a \$260 million contract by the end of the month for the Westside Combined Sewer Overflow, a massive tunnelling project, with a jv of Impregilo and its subsidiary S.A. Healy. The city signed a pre-construction contract with the Italian-US jv in December 2001. The Westside CSO tunnel is part of the Willamette CSO programme. The scheme will extend from the area near Marquam Bridge, proceeding north paralleling the Willamette River. It will end in an area adjacent to NW 26th Street and NW Front Avenue/NW Naito Parkway, passing under Waterfront Park and seven bridges. The tunnel will collect flow from the southwest parallel interceptor and intercept overflows from existing combined sewer and storm outfalls that discharge to the Willamette River from the central business district and basins immediately north. Parsons Brinckerhoff designed the CSO tunnel. As prime engineering consultant, the firm is also responsible for project management, geotechnical engineering, design of drop shafts, civil engineering, specifications and cost estimates. Construction is expected to begin this summer and scheduled to culminate in 2006. The project includes 6.75 km of 4.27 m diameter concrete-lined tunnel. Visit www.pbworld.com

World Digest Of Ongoing Tunnelling

Italy. La Spezia-based contractor Nino Ferrari Costruzioni Generali reports breakthrough of the Marinasco tunnel on 9th July. The 2,433 m-long tunnel, of which 129 m in cut-and-cover on the Val di Vara side, is situated between La Spezia and San Benedetto on the Aurelia bypass. The tunnel will be commissioned in October to ANAS, the national roads agency. Opening is scheduled by next year, ten years after the start of the project, once lighting and ventilation are installed.

Italy. Lombardini has just started to build the 1.8 km Valgelata di Vado tunnel between Bossarino and the port of Savona-Vado in the region of Liguria. The €25 million tunnel aims at speeding up the transport of goods for heavy freight vehicles. Construction was launched in 1992 when a TBM-driven pilot tunnel was started. But the project suffered constant hold-ups and was re-tendered. Lombardini will enlarge the pilot tunnel. It will take two years to finish the job.

World Digest Of Tunnel Renovation & Maintenance

France. Further to a survey conducted to assess safety in three tunnels in the city (Halles, Tuileries and Courcelles), Paris has decided to secure two of its tunnels. The survey has shown that the Tuileries tunnel (1st district) and the Courcelles tunnel (8th-17th districts) need renovation work that will be focused on emergency exits and smoke removal. In accordance with a new law, implemented since 3rd January, 2002 the municipal authorities will survey the 16 tunnels longer than 300 metres throughout the city and order renovation works if needed.

Switzerland. The 340 km-long crude oil pipe conveying Lybian oil from the port of Genoa, Italy to the Tamoil refinery in Collombey, Switzerland runs one metre under the carriageway of the 5.8 km Grand Saint-Bernard tunnel linking Switzerland to Italy. Further to the Mont-Blanc and Gothard fires, the tunnel operator, Société d'exploitation du tunnel du Grand Saint-Bernard, ordered an inspection which has shown that the tunnel needs to be secured. Not many drivers know that an oil pipe is running under the tunnel but a fire could potentially be very destructive. Experts said that the oil in the pipeline flows at a speed of 10 kmph and would have no time to heat in case of fire in the tunnel. Moreover, the pipeline is protected by a insulating sand layer and coated with concrete. Nevertheless, the operator decided to move the oil pipe. The idea of constructing a second tube has been envisaged for road traffic but was abandoned for cost reasons. It has then been decided to build a parallel rescue and safety tunnel with a ditch designed for the pipeline. The new tunnel will be 4 to 5 m in width and cross-connected to the main tube. The project will cost CHF70-75 million. The tunnel operator grasped the opportunity of the renewal for another 30 years of the contract signed with Société de l'Oléoduc du Rhône, the oil pipe owner, to get them to finance over half of the cost. Visit www.grandsaintbernard.ch

World Digest Of Inaugurations

Germany. After four years of construction, the 1,472 m Petuel tunnel has opened on Munich's middle ring road, north of the city on 6th July. The Petuel tunnel has been built in cut-and-cover and is lined with a 60 cm-thick concrete layer. The tunnel cost €204 million. Two other tunnels, currently in the planning stage, will be built from 2005: the eastern tunnel (1.5 km), and two southwest tunnels (1.2 km and 600 m). Visit www.petuelunnel.de

Companies

Czech Republic. Construction company Zakládání staveb posted a net profit of Kc44.5 million last year. Zakládání staveb's sales were up 17% to Kc985.2 million. Last year, the company has been involved in the construction of the twin Mrazovka tunnel (838 m and 1,013 m) on the Prague ring road and the IV.C section of Prague metro. The company has 360 employees and its largest customers are construction firms Metrostav, Subterra, Stavby silnic a zeleznic and VSB Hochtief. Visit www.zakladani.cz

Spain. Tecsa, a subsidiary of Grupo Dragados with headquarters in Bilbao, predicts a 53% increase of its sales this year to €200 million. The company is currently investing massively in equipment and staff to get ready for the major Basque infrastructure projects such as the so-called Basque Y, the high speed rail link between Bilbao, Vitoria and San Sebastian for which extensive tunnelling is planned. Tecsa's ongoing tunnelling contracts include the Guadarrama tunnel, the east Abdalajis tunnel on the Cordoba-Malaga high speed line and a €42 million contract to transfer below ground rail tracks in Espinho, Portugal. Visit www.tecsa.es and www.tunnelbuilder.com, items es/16, es/41 and pt/27.