



International Commission
on Large Dams
79th Annual Meeting
May 29 – June 3, 2011
Lucerne/Switzerland
Initial Bulletin



Dear Guest

In the name of the Swiss Committee on Dams (SwissCoD) we are pleased to welcome you in Lucerne at the occasion of the 79th Annual Meeting of ICOLD. This event will give you an unique opportunity to discover the geographical heart of Switzerland, but also its historical birthplace, as the Swiss Confederation was founded here more than seven hundred years ago.

Switzerland has a long experience in the design, construction and operation of dams essentially for energy purpose. Almost 60% of the electricity consumed in the country is produced by hydro schemes, either as high head storage facilities or run of the river plants.

Our organizing committee has put together an attractive program, that will allow you to get acquainted with our country and with some recent Swiss projects in the field of dams.

The meeting will take place in the famous Culture and Convention Center of Lucerne, but you will have also many opportunities of enjoying the sceneries in and around the city and its lake. The full day Symposium will address the major concern of dams and reservoirs facing changing challenges and we are expecting lively presentations and discussions on this subject.

The technical visits will focus on the planning and realization of new hydro schemes in the Swiss Alps requiring the construction or the heightening of dams.

We trust that the 79th Annual Meeting of ICOLD will give you a good opportunity of renewing old friendships and establishing new ones, last but not least by participating in one of the pre- or post-meeting study tours, leading to various parts of Switzerland and also over the border to landscapes and projects in Austria, Germany, Italy and France.

We are looking forward to seeing you in Lucerne in the Spring of 2011!



Prof. Dr. Anton Schleiss
Chairman of Swiss Committee
on Dams



Marc Balissat, Chairman of
Organizing Committee



Invitation

Welcome to Switzerland, where mountain magic meets hospitality and tradition

From a country of peasants and artisans Switzerland managed to become in the last century an industrialized nation with a high standard of living. Land of mountains, rivers and lakes, but with no source of mineral fuel, Switzerland had to rely on hydraulic resources to produce a large part of the energy required for its development. Reservoirs were created as early as 100 years ago in the Alps, some of them impounded by very large dams. Headrace galleries and penstocks were built under difficult conditions to bring the precious source of energy to powerhouses. Nowadays many of these reservoirs add to the natural beauty of the Alps by reflecting mountain pastures and peaks in their crystal blue water.

Although Switzerland participated in the foundation of ICOLD in 1928, it was only 20 years later that the Swiss Committee on Dams was founded. With nearly 250 members, authorities, companies and individuals, representing all branches involved in regulation, design, construction, operation and rehabilitation of dams, the committee plays a significant role in the dam industry, not only in Switzerland, but also abroad.

Visiting Switzerland is an unique experience for everyone while offering a great variety of activities as sailing or swimming on natural lakes, hiking in the country or in the mountains, visiting historical cities or typical market towns, driving a car or riding on a train of one of the best transportation network in Europe. A country of culture and education, Switzerland is also proud of its long democratic and humanitarian traditions.

The Swiss Committee on Dams is pleased to be your host for the 79th Annual Meeting of ICOLD.



Lucerne in the heart of Switzerland

Geographically, Lucerne lies in the heart of Switzerland; historically, it is the birthplace of Switzerland: Lake Lucerne Region is one of the most diverse vacation and excursion regions in all of Switzerland. Its landscape is shaped by the spectacular world of the Alps, covered with a magical blanket of fluffy snow in winter. Lake Lucerne Region is the «pocket-size region» of Switzerland. No other region offers so many memorable Swiss vacation moments in such a small amount of space.

Lucerne is Switzerland because it encompasses all the merits of our country: The City – The Lake – The Mountains. Whatever you expect from a unique city, Lucerne will not disappoint you. Lucerne will surprise you – again and again. The avant-garde, in the form of the futuristic KKL Luzern Culture and Convention Centre designed by Jean Nouvel, is just as much at home here as historic buildings which have survived for centuries. The museums, theatres and festivals provide the perfect mix of tradition and trend, archaic customs and high-tech, making Lucerne a distinguished city of culture. Immerse yourself in this town, enjoy the magnificent landscape, stroll along the quays and don't be surprised when you feel you would never want to leave. Lucerne's charm is legendary. And we extend a warm welcome to you.

www.luzern.org



Venue: KKL Luzern Culture and Convention Centre

The KKL Luzern Culture and Convention Centre (KKL Luzern) ranks today as one of the most spectacular modern buildings in Switzerland. French architect Jean Nouvel combined design and aesthetics to create the new landmark of the city of Lucerne.

The centerpiece of the KKL Luzern is the concert hall with its acoustics, ensuring memorable concert experiences and inspiring the world's best conductors, orchestras and soloists to peak performances. The Symposium on «Dams and reservoirs under changing challenges» will be held in this beautiful concert hall.

Framed by two water channels, the Lucerne Hall, which is unique due to its modular concept in design, is ideal for product presentations, conventions, concerts and banquets. The technical exhibition with the coffee and lunch breaks will be located in the Lucerne Hall.

Lucerne's main railway station – with international connections – and the parking garage are only a few steps away from KKL Luzern.

Most of the hotels are very close to the KKL Luzern and can be reached by a pleasant walk along the lakeside within 5 to 10 minutes. Furthermore all hotels can easily be reached by public bus transport with bus-stops directly in front of KKL Luzern.



Program of the 79th Annual Meeting of ICOLD

May 29 – June 3, 2011



Sunday, May 29: Arrival of Pre-meeting study tours
Registration
Meeting of ICOLD board



Monday, May 30: Registration
Meeting of ICOLD officers and technical committees
Opening cocktail of exhibition
Welcome reception

Tuesday, May 31: Meeting of technical committees
Exhibition
Free evening



Wednesday, June 1: Symposium on Dams and Reservoirs
under Changing Challenges
Exhibition
Symphony Concert at the KKL

Thursday, June 2: Technical visits

Friday, June 3: Annual Meeting
Farewell dinner

Saturday, June 4: Departure of Post-meeting study tours



Symposium, June 1, 2011

Dams and reservoirs under changing challenges

Symposium Themes

The changing challenges for dams and reservoirs in this century will be discussed under the following topics:

A. Long-term behavior of dams

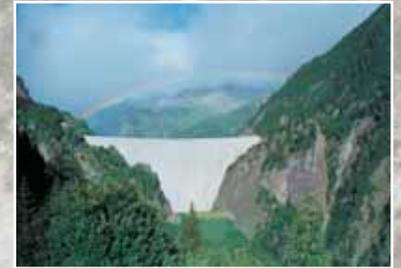
- Maintenance and surveillance
- Safety concepts
- Emergency action plans
- Alkali aggregate reaction (AAR) of dam concrete
- Rehabilitation and uprating

B. Dams and climate change

- Long-term operation of dams
- Sedimentation of reservoirs
- Water resources management of reservoirs
- Flood passage and management
- Water transfer over long distances
- Water supply and irrigation
- Energy production

C. Dams and natural hazards

- Earthquakes
- Floods and related release structures
- Landslides and avalanches into reservoirs
- Extreme climate conditions



Symposium, June 1, 2011

Dams and reservoirs under changing challenges

D. Dams in a sound environment

- Tourism and recreation
- Contribution to renewable energy production
- Ecological mitigation measures
- Navigation
- Irrigation and food production

The above list is not exhaustive and other themes related to these topics are welcome to the Symposium.

Submission procedure

Authors are invited to submit an abstract of 300–400 words (1 page) in one or more of the areas identified above.

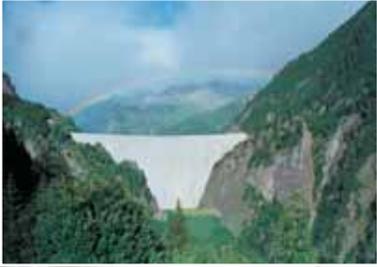
Only authors whose abstracts have been selected will be invited to submit full papers, which will be published in the conference proceedings in collaboration with a scientific publisher.

Detailed instructions on abstract preparation can be found at www.swissdams.ch.

Abstracts can be submitted by e-mail to swissdams@stucky.ch.

Schedule – Key Dates

Abstract submission deadline:	June 30, 2010
Notification of acceptance:	July 31, 2010
Full paper submission deadline:	October 30, 2010
Final notification of paper acceptance:	December 30, 2010



Technical Visits – June 2, 2011

Three parallel technical visits are proposed to the delegates and the accompanying persons:

A. Pumped storage project Nant de Drance

The pumped storage scheme is actually under construction and will connect the reservoir of the 180 m high Emosson Arch Dam to the Vieux-Emosson reservoir located 250 m higher. The powerhouse capacity will be 600 MW. The project is located near the French border with great views on the Mont Blanc Massif and the Valley of Chamonix. Due to environmental constraints, the entire project is underground, including a cavern system for the powerhouse and two water intakes in existing reservoirs in operation.



B. Heightening project of Grimsel reservoir and Gotthard base tunnel

The Gotthard base tunnel presently under construction consists of two tubes, each one being 57 km long. When put into operation in 2017 it will be the longest railway tunnel in the world. Opportunity will be given to visit the information center at the Northern portal (Erstfeld) that gives a realistic picture of the technical challenges encountered during the construction and how they were mastered.

The tour will bring the visitors to the area of the Grimsel Pass where the heightening of the two dams forming the reservoir of the same name is under study: the Spitallamm Dam is a 114 m high arch gravity dam that shall be transformed in a 137 m high double curvature arch dam, whereas the Seeuferegg Dam, a 45 m high gravity dam, will be raised to a height of 68 m by adjunction of a hollow concrete structure at the upstream side.



Technical Visits – June 2, 2011

C. Heightening of the Göschenalp Rockfill Dam and Linthal 2015 Pumped storage project



The 155 m high Göschenalp Dam has been built from 1955 until 1962. It consists of a central impervious core with two rockfill shoulders. To increase the reservoir volume by 15% it is foreseen to heighten the dam by 8 m while raising the crest and adapting the appurtenant structures. Beginning of the construction works is scheduled for Spring 2011 and they are foreseen to last until 2013.



The Linthal 2015 project calls for a new underground powerhouse allowing to pump the water of the existing Limmern Reservoir to the Mut Lake, located 630 m higher, and to turbine it when required for energy production. The upper reservoir will require the construction of a 30 m high and over one kilometer long concrete gravity dam. The installed capacity of the powerhouse will be 1000 MW in pumping and turbinning mode. Construction works have started in 2010 and are scheduled to be completed in 2015. For logistic reasons the visit will concentrate on the information center and the lower compensating basin of Tierfehd.



Technical exhibition

The technical exhibition will be held from May 30 until June 1, 2011 in the Lucerne Hall, immediately at the entrance of the Culture and Convention Center. The exhibition shall give the opportunity to all interested professionals in the fields of dam operation, regulation, construction, equipment supply and engineering to present their activities and extend their business relationships.

The exhibition will be the meeting point *par excellence* with the possibility of eating something at mid-day or to drink a coffee during the session breaks.

For details and reservation of booths please direct your enquiry to: icoldexpo2011@gmx.ch





Tours for accompanying persons

Various tours starting from Lucerne will be available:

City of Lucerne tours (1/2 day): A classical guided walking tour of Lucerne historical center will be offered to all delegates and accompanying persons (duration: 2 hours).

Half day tours to various landmarks in and around Lucerne (Glacier Garden, Bourbaki Panorama, Swiss Museum of Transport, Glass Factory Hergiswil) will be also available against a nominal fee.



The Rigi and Schwyz (1 day): From Lucerne by ship to Vitznau – By pinion and rack railway to the summit of the Rigi (1800 m) – Panorama over the Lake of Lucerne and Alps – Light walk – Lunch – further by railway down to Arth-Goldau and by bus to Schwyz – Visit of the historical center and of the federal archives (foundation act of Switzerland, 1291) – Brunnen and travel back to Lucerne by bus along the lake shore.



The Jungfrauoch and Grindelwald (1 day): From Lucerne by bus over the Brünig Pass to Interlaken – Lauterbrunnen – Continuation by train to Kleine Scheidegg and Jungfrauoch (3454 m) with the highest railway station in Europe – Panorama over the impressive Aletsch Glacier and many high summits – Visit of the Sphinx and Ice Palace – Lunch – Down by train to Kleine Scheidegg and Grindelwald (short visit of the alpine resort) – Interlaken – and back to Lucerne by bus.



Berne and Emmental (1 day): By bus on the freeway to the capital city of Switzerland – Visit of the famous historical center registered as world heritage by UNESCO – House of parliament and federal government – Bear park and pit – Lunch – Continuation to Burgdorf – Visit of a cheese factory in Affoltern i.E. – Huttwil and return to Lucerne.

The Rhine and Schaffhausen (1 day): By bus over the freeway/main road to Rapperswil – Toggenburg Valley – Wil – Stein am Rhein: short visit and boarding of the ship to travel down to Schaffhausen on the Rhine River – En route lunch – Visit of the historical city of Schaffhausen – Transfer by bus to the nearby Castle of Laufen – Visit of the Rhine waterfalls (the largest in Europe) – Free time – Return to Lucerne via freeway.



Study Tours

Diversity of the Swiss sceneries and of Swiss dams will be highlighted in several study tours.

Opportunity will be given to visit also dams in the Austrian, French and Italian Alps as well as in Southern Germany.

A. Pre-Meeting Tours (May 26 to 29, 2011)

A1. Western Switzerland

Day 1: Meeting of participants in the evening in Geneva.

Day 2: City tour of Geneva and travel by bus along the Lake of Geneva – Rhone Valley – Visit of Les Toules Arch Dam recently rehabilitated and strengthened (2008–2010) – Continuation of trip to Chamonix (F) – Overnight in Chamonix.

Day 3: From Chamonix to the Trient Valley – Presentation of the Nant de Drance Pumped Storage Project under construction, then travel by cable car to the Emosson Arch Dam – Information about the monitoring of the dam during the construction works – Continuation by bus along the Rhone Valley to Visp and Zermatt – Overnight in Zermatt.

Day 4: Return to the Rhone Valley. Travel by bus up to the Grande Dixence Gravity Dam (still holding the world record in height) – Visit of the dam – Continuation by bus via Loetschberg – Interlaken – Lucerne. Tour ends in Lucerne.



Study Tours

A2. Southern Switzerland

Day 1: Meeting of participants in the evening in Zurich.

Day 2: City tour of Zurich and continuation by bus to Andermatt (Urseren Valley) – Oberalp Pass – Sedrun (Vorderrhein Valley) – Visit of the intermediate construction access for the new Gotthard Base Tunnel (2x57 km long) and information about the intensified monitoring of the Nalps and Santa Maria Dams – Continuation to Disentis (important cloister of 17th century). Overnight in Disentis.

Day 3: Departure by bus to the Lukmanier Pass – Visit of the Santa Maria Arch Dam on the way – Continuation to the Blenio Valley on the Southern side of the Alps – Visit of the Luzzone Arch Dam, heightened in 1997–1999 – Continuation to Bellinzona and Lugano – Overnight in Lugano.

Day 4: From Lugano to the Magadino Plain – Visit of the Contra Arch Dam and continuation towards San Bernardino (Mesocco Valley) – Visit of the nearby Isola Dam and information about the rehabilitation project of the dam – Continuation to the Hinterrhein Valley – On the way visit of the Romanesque church at Zillis with its unique painted wooden ceiling (12th century) – Continuation to Chur – Sargans Country – Lake of Zurich and Lucerne. Tour ends in Lucerne.



Study Tours

A3. Eastern Switzerland

Day 1: Meeting of participants in the afternoon in Zurich – City tour.

Day 2: Travel by bus to Sargans Country and Prättigau – Transfer through Vereina Tunnel to Lower Engadine – Visit of Ova Spin Arch Dam and Powerhouse – Entering the Swiss National Park and passing the Punt dal Gall Arch Dam (short visit) – Continuation to Livigno (I) – Bormio – Overnight in Bormio.

Day 3: Departure by bus from Bormio and travel along the Valtellina to Tirano – Boarding a panorama car of the Rhaetian Railways (RhB) and continuing on the Bernina Railway Line (UNESCO world heritage) – Stop at the lower station of the Diavolezza cable car and ascent to the mountain station (2980 masl) – Panoramic view on the Bernina Massif – Continuation by train to St. Moritz – Free time – Overnight in St. Moritz.

Day 4: Departure by bus to Chur (via Julier Pass) – Glarus to Linthal – Visit of the information center Project Linthal 2015 and compensating basin Tierfehd – Transportation by aerial cable car to the construction site of the Mutsee Dam: *to be confirmed* – Return to Tierfehd and continuation by bus to Glarus – Lake of Zurich – Lucerne. Tour ends in Lucerne.



Study Tours

B. Post-Meeting Tours (June 4 to June 7, 2011)

B1. Western Switzerland



Day 1: Departure of Lucerne by bus to Interlaken (via Brünig Pass) – Loetschberg Tunnel to Visp – Continuation by train to Zermatt – Excursion to Gornergrat (panoramic view of the Monte Rosa Massif and Matterhorn) – Overnight in Zermatt.



Day 2: Return to Visp and Rhone Valley – Travel by bus up to the Grande Dixence Gravity Dam (still holding the world record in height) – Visit of dam – Continuation by bus to Martigny – Lake of Geneva – Visit of the Castle of Chillon (13th century) on the shore of the lake – Overnight in Montreux.



Day 3: Departure to the Rhone Valley – Martigny – Bagnes Valley – Visit of the Mauvoisin Arch Dam, heightened in 1991 – Stop at the Fionnay Powerhouse – Continuation to Les Toules Arch Dam, recently rehabilitated and strengthened (2008–2010) – Continuation of trip to Chamonix (F) – Overnight in Chamonix.

Day 4: From Chamonix to the Trient Valley – Presentation of the Nant de Drance Pumped Storage Project under construction, then travel by cable car to the Emosson Arch Dam – Information about the monitoring of the dam during the construction works – Continuation by bus to Chamonix – Cluses – Annemasse – Geneva – Farewell dinner and overnight in Geneva.



+ Possibility of adding two extra days (unaccompanied travel B1+):

Day 4: After lunch transfer from Le Châtelard by train to Martigny – Brig. Overnight in Brig.

Day 5: With the Glacier Express train from Brig to Andermatt – Chur – St. Moritz. Free time. Overnight in St. Moritz.

Day 6: Transfer by train to Chur – Zurich (– Zurich Airport).



Study Tours

B2. Southern Switzerland

Day 1: Departure by bus from Lucerne to Andermatt (Urseren Valley) – Oberalp Pass – Sedrun (Vorderrhein Valley) – Visit of the intermediate construction access for the new Gotthard Base Tunnel (2x57 km long) and information about the intensified monitoring of the Nalps and Santa Maria Dams – Continuation to the Nalps Dam: visit of the dam – Transfer to Disentis – Overnight in Disentis.

Day 2: Departure by bus to the Lukmanier Pass – Visit of the Santa Maria Arch Dam on the way – Continuation to the Blenio Valley on the Southern side of the Alps – Visit of the Luzzone Arch Dam, heightened in 1997–1999 – Continuation to Bellinzona and Locarno – Overnight in Locarno.

Day 3: Departure by bus from Locarno to visit the nearby Contra Arch Dam in the Verzasca Valley – Continuation to Lugano – Riva San Vitale – Ascent by railway to the Monte Generoso (1700 masl) with panoramic view over the Alps and the Lake of Lugano – Transfer to Lugano – Free time – Overnight in Lugano.

Day 4: Departure from Lugano to Bellinzona – Misox Valley – Visit of the Isola Dam – Presentation of the rehabilitation project of the dam – Continuation to the Vorderrhein Valley – Visit of the romanesque church of Zillis with its unique painted wooden ceiling (12th century) – Continuation to Chur and Zurich – Farewell dinner and overnight in Zurich.

+ Possibility of adding two extra days (unaccompanied travel B2+):

Day 4: After visit of church at Zillis, transfer by train from Thusis to St. Moritz. Overnight in St. Moritz.

Day 5: With the Glacier Express train from St. Moritz to Andermatt – Brig – Zermatt. Overnight in Zermatt.

Day 6: Transfer by train to Visp – Bern – Zurich (– Zurich Airport) or Visp – Lausanne – Geneva (– Geneva Airport).





Study Tours

B3. Eastern Switzerland

Day 1: Travel by bus from Lucerne to Glarus – Linthal – Visit of the information center Project Linthal 2015 and compensating basin Tierfehd – Transportation by aerial cable car to the construction site of the Mutsee Dam: *to be confirmed* – Return to Tierfehd – Overnight in Glarus.



Day 2: Travel by bus from Glarus to Chur – Thusis – Via Mala Gorge – Continuation to Solis Dam: visit and presentation of the bypass tunnel project for bed load transport – On the road to the Julier Pass visit of the Marmorera Embankment Dam – Continuation to St. Moritz – Overnight in St. Moritz.

Day 3: From St. Moritz continuation of the trip by train on the Bernina Railway Line (UNESCO world heritage) – Stop at the lower station of the Diavolezza cable car – Ascent to the mountain station (2980 masl) – Panoramic view of the Bernina Massif – Continuation by train to the Bernina Pass – Poschiavo – Tirano (I), then by bus along the Valtellina to Bormio – Overnight in Bormio.



Day 4: Travel by bus to Livigno – Punt dal Gall Arch Dam: visit of the dam located just at the Swiss-Italian border – Continuation to Il Fuorn and Zernez: visit of the information center of the Swiss National Park – Transfer by bus to Sargans and Zurich via Vereina Tunnel – Farewell dinner and overnight in Zurich.

+ Possibility of adding two extra days (unaccompanied travel B3+):

Day 4: After visiting the Swiss National Park information center in Zernez, transfer by train to St Moritz. Overnight in St. Moritz.

Day 5: With the Glacier Express train from St. Moritz to Andermatt – Brig – Zermatt. Overnight in Zermatt.

Day 6: Transfer by train to Visp – Bern – Zurich (– Zurich Airport) or Visp – Lausanne – Geneva (– Geneva Airport).



Study Tours

B4. Southern Germany/Austria

Day 1: Departure from Lucerne for Baden – Stein – Bad Säckingen (D) – Visit of the PSP Hornberg at Wehr – Presentation of the extension project PSP Atdorf (1400 MW installed capacity) with the new Hornberg II Basin – Continuation along the Rhine River to Schaffhausen – Constance (D): visit of the city – Transfer by ferry to Meersburg and continuation along the Lake of Constance to Lindau – Overnight in Lindau.

Day 2: Travel by bus to Bregenz (A) – Montafon Valley – Visit of the new powerhouse of the PSP Kops II Scheme (525/450 MW) – Continuation to the Vermunt and Silvretta reservoirs – Passing the Bielerhöhe and continuing to Landeck – Innsbruck – Visit of the city and overnight in Innsbruck.

Day 3: Leaving Innsbruck for Wattens (possibility of visiting the Crystal World by Swarovski) – Achensee – Sylvenstein Dam (D): visit of the dam – Continuation to Tegernsee – Rosenheim – Visit of the park and castle of Herrenchiemsee, built by Ludwig II of Bavaria – Overnight in the Kaisergerbirge Region (A).

Day 4: Travel by bus to Zell am See – Kaprun – Visit of the Limberg 2 Scheme. Continuation to Bischofshofen – Salzburg: City tour – Farewell dinner and overnight in Salzburg.

Transfer to the Munich International Airport (130 km) available.



Study Tours

B5. Northern Italy



Day 1: Travel by bus from Lucerne to Lugano – Menaggio (Lago di Como / I) – Sondrio – Continuation to Val Malenco and Alpe Gera Dam: visit of the dam (first RCC gravity dam, completed in 1964). Overnight in Sondrio.



Day 2: From Sondrio in the Valtellina to Bormio and San Giacomo di Fraele Buttress Dam and Cancano II Arch Gravity Dam: visit of the dams and presentation of the recent strengthening works – Continuation by bus to the Stelvio Pass and Val Venosta (Vinschgau) – Overnight in Merano (Meran).

Day 3: City tour of Merano – Transfer to Val d'Ultimo (Ultenthal) to visit the Zoccolo Dam (earthfill dam on alluvium) – Continuation by bus to Bolzano (Bozen) and the South Tyrolean Wine Road – In the afternoon, by bus along the Adige River to Trento and Verona – City tour and overnight in Verona.



Day 4: Travel by bus to Vicenza – Padova and Venice – Guided visit of the city – Farewell dinner and overnight in Venice

Transfer available to Venice Marco Polo International Airport.



Study Tours

B6. French Alps and Rhone Valley

Day 1: Travel by bus from Lucerne to Berne – Geneva – Bellegarde (F) – Transfer to the Génissiat Dam and Powerplant: visit of the highest gravity dam on the Rhone River – Presentation of the Chautagne Dam – Continuation to Seyssel and short stop to the Chautagne Dam – Transfer to Annecy – Visit of the old Annecy and overnight.

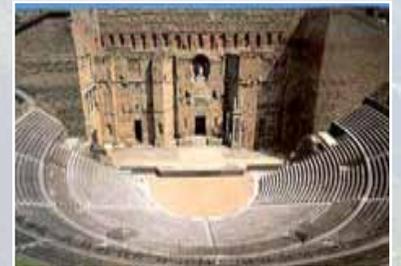
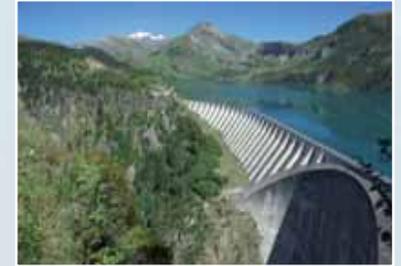
Day 2: From Annecy to the Roselend Dam by bus: visit of the dam and detailed presentation of the latest piezometric data – Continuation to Bourg St-Maurice via the Cornet de Roselend (stop) – Continuation to the Tignes Dam (short stop and presentation of the dam) and Col de l'Iseran (2764 masl) – Entering the Maurienne Valley and continuing along the Arc River – Overnight in St-Jean de Maurienne.

Day 3: Departure for the Col de la Croix de Fer (2068 masl) and the Grand Maison Scheme – Short visit of the embankment dam – Continuation to the Allemont Powerhouse: visit of the plant and the Hydrelec Museum – Continuation of trip to Grenoble and Voiron. Visit of the Chartreuse Cellars in Voiron and liquor tasting – Transfer to Valence – Overnight in Valence.

Day 4: By bus from Valence to Montélimar and the Donzère-Mondragon Scheme on the Rhone River – Detailed visit of the scheme and continuation to Orange: visit of the roman theater and the old city – Transfer to Avignon – Overnight in Avignon.

Day 5: Visit of the Palais des Papes and the City of Avignon – Transfer to the Roman aqueduct of Pont du Gard – Free time – Continuation to Les Baux de Provence, one of the most beautiful villages of France – Return to Avignon – Farewell dinner and overnight in Avignon.

Transfer available to the Avignon TGV railway station or to Marseille Provence International Airport.



Dams in Switzerland

With a surface area of approx. 40 000 km² and 160 large dams in operation, Switzerland is the country with the highest density of dams in the world. 48 dams exceed 60 m in height, and 25 are more than 100 m high. With a height of 285 m, the almost 50 years old Grande Dixence dam is still the highest concrete dam in the world. All dams are well integrated in the environment and contribute to the economic prosperity of the country.



How to reach Lucerne

By train:

Lucerne is situated on the main route running from north to south and is connected with the Swiss railway network. Direct fast trains link Lucerne to the international airports in Zurich, Basel and Geneva.

Further information: www.sbb.ch

By car:

An excellent network of fully developed freeways serves to link Lucerne to all of the most important cities in Switzerland and abroad.

Further information: www.tcs.ch

By plane:

The international airports of Zurich, Basel and Geneva are only a short distance away from Lucerne, and are also well connected with direct fast trains.

Distances:

Zurich Airport: 65 km

Geneva Airport: 250 km

Basel Airport: 110 km

Further information: www.swiss.ch

Swiss International Air Lines is proud to be the Official Carrier for the 79th Annual Meeting of ICOLD 2011 in Lucerne and is offering special Congress Fares to all participants. These Congress Fares offer reductions of up to 25% depending on the fare type, route and space availability.

Congress Fares are valid on the entire SWISS route network for flights to Switzerland, including flights operated by partner airlines under an LX flight number. These fares are bookable starting end of June 2010 for the travel period 14 days prior to and 14 days after the event.

To take advantage of this offer, book easily and conveniently through SWISS.COM via the following link: www.swiss.com/event

Please enter your email address and the following event code: 8563-8966-2491-5756



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Swiss Committee on Dams
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