



ORGANIZZAZIONE INTERNAZIONALE TRASPORTI A FUNE
INTERNATIONALE ORGANISATION FÜR DAS SEILBAHNWESEN
ORGANISATION INTERNATIONALE DES TRANSPORTS A CÂBLES
INTERNATIONAL ORGANISATION FOR TRANSPORTATION BY ROPE
ORGANISACION INTERNACIONAL DE TRANSPORTES POR CABLE

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O.I.T.A.F.-NEWS 1/2000

President's preface

Dear O.I.T.A.F. friends

The first six months of the new century have taken place against the background of an important date, May 3, date on which the European Directive relating to ropeway installations designed to transport persons has become effective, and against the background of a period of intense activity related to the production of CEN standards for ropeways. O.I.T.A.F. with their experts have made a decisive contribution to the drafting of both the European Directive and the European standards. This is the reason why in the present issue of the NEWS main stress is put on these two important aspects in the life of O.I.T.A.F, as well as on the activities of the O.I.T.A.F. committees, which might be considered as being little spectacular to the eye of an outsider, the scope and content of which however coincide with the announced development of O.I.T.A.F activities and the set objectives. The international collection of court decisions taken at the highest level related to ropeway accidents has progressed in the meantime and it is hoped that by soon it will be retrievable for all O.I.T.A.F. members thanks to our modern means of communication. I would like to avail myself of this opportunity to express my deep gratitude to Mr. Thöny and P.Vie, two members of the O.I.T.A.F. committee n° 4, for their commitment to this task. I would like to express thanks to Monsieur Crouzet, convenor of the O.I.T.A.F. committee n° 6 for all the work he has done in order to organize last spring in conjunction with SAM a highly interesting O.I.T.A.F. seminar on the safety at work of ropeways. The other committees have also been active and organized their work in accordance with the remit given to them by the Management Committee, and in saying that I would like to stress in particular the activity related to the O.I.T.A.F Forum on Environment, the presentation of which will be made in one of the forthcoming issues of the **O.I.T.A.F.-NEWS**.

Pursuant to the decision taken during the last International Conference on Transportation by Rope to enhance the attractiveness of our organisation and to give it a new structure the Management Committee have improved and strengthened contacts with the North Ameri-

can section of O.I.T.A.F. and Asia with a view to improving the exchange of information with partners that have come to play a very important role in the field of transportation by rope.

Dear Reader, you will have noticed yourself that we have tried and will endeavour in the future to further improve the new image and „New Approach“ of O.I.T.A.F. and enhance the role played as service organisation and centre of information. However in order to achieve this objective and take care of all the issues that need to be looked after it is our intention to circulate with the next issue of the O.I.T.A.F.-NEWS a questionnaire for you to use in order to let us know your wishes, your suggestions, your satisfaction with or dissatisfaction about the work done by O.I.T.A.F. And should you wish to do it right away, I'll certainly welcome and am looking forward to receive your comments.

Sincerely your

Horst Kühschelm.

Preface of the Secretary General

Unfortunately several circumstances and questions of time, such as for instance the fact that the meetings of the managing bodies of O.I.T.A.F and its committees were held late in the season, have caused this issue of the O.I.T.A.F.-NEWS to be delayed

It has actually been our intention to make in this issue a presentation of the working group „Discussion forum on Environment“ chaired by Techn. Rat Dipl.-Ing. Michael Manhart. But seen that the working group have not yet reached agreement on the actual scope of their activity we agreed to postpone the presentation of this working group till the next issue of the O.I.T.A.F.-NEWS.

This is why this time I am going to give you only a brief report on the activity of the Executive Committee and the Management Committee and a more detailed report on the activity of O.I.T.A.F. committees.

Yet above all it is my intention to report on the EU Directive 2000/9/EC relating to cableway installations designed to carry persons which has been published in the meantime in the Official Journal of the European Communities.

It is also my intention to make a progress report on CEN standards

ACTIVITIES OF THE EXECUTIVE COMMITTEE AND OF THE MANAGEMENT COMMITTEE

Executive Committee

This year the Executive Committee convened twice, the first time at the Zurich Airport on January 27, and the second time on April 5, in Munich, the main purpose of these meetings being a twofold one : to exchange views with the chairmen of O.I.T.A.F. committees on the issues that ought to be tackled by O.I.T.A.F and coordinate activities of O.I.T.A.F committees and to have a first preparatory discussion of issues to be examined by the Management Committee. All the issues listed further down have thus been examined at length by the Executive Committee prior to the meeting of the Management Committee.

Management Committee

The Management Committee met twice in the period following the last issue of **O.I.T.A.F.-NEWS**. The first meeting was held in Vienna on October 19, 1999 and the second in Grenoble on April 26, 2000.

At these meetings the Management Committee addressed the following issues:

1. Election of the second Vice-president of O.I.T.A.F.
2. Report on the International Conference on Transportation by Rope in San Francisco
3. Future new organisation and orientation of O.I.T.A.F.
4. Seminar organized by committee n° 6 in Grenoble
5. Proposal on the admission of new members of the Management Committee without the right to vote
6. Approval of the draft „Technical Recommendations for the Design and Construction of Conveyors intended as a Boarding Help for Chairlifts“ submitted by committee n° 1
7. Approval of the draft „Technical Recommendations for the Design and Construction of Uphill Conveyance Systems for Wintersports“ submitted by committee n° 6

1. Election of the second Vice-president of O.I.T.A.F.

Prof. Paolini has been reconfirmed as 2nd Vice-president by the majority of members. He is holder of the chair on mechanics at the Politecnico in Milano and has until recently chaired the O.I.T.A.F. committee n° 2. He has been appointed convenor of the CEN TC 242 working group on „Ropes“ who have been given the brief to draft Safety requirements for ropes intended for ropeway passenger transportation systems

- **Report on the International Conference on Transportation by Rope in San Francisco**

Jim Fletcher, President of the Organizing Committee of the Conference gave voice to his satisfaction in reporting to the Committee that the Conference has been a great success.

440 participants, spouses and accompanying persons from 17 different countries and all continents of the world (except Australia) have attended the conference. All lectures stood out for their high technical standard. Thus the two main objectives of the conference have been met i.e.

- a truly international character of the conference and
 - high technical standard of all lectures
- The decision which had been taken to ask the authors to present themselves their paper has proven to be a wise decision. Notwithstanding that, it is felt that additional thought ought to be given to the possibility to recover the old system of general lectures that are a synthesis of several individual lectures. Another decision which has given very positive results has been the decision to ask authors to e-mail their lectures and abstracts thereof and to have them PC processed. All lectures have been saved on CD and sent to the Secretariat.

The sponsors' generosity has been essential for the success of the conference and Jim Fletcher availed himself of this opportunity to thank in particular the companies Garaventa-CTEC, Poma and Doppelmayr, Acordia Resort Services, Aerial Engineering, CWA-Constructors, Fatzer Wire Rope, Kimley-Horn and Associates, Ski Area Management, American Tramways and all those who have offered their valuable assistance to the or-

ganization of social events : CWA-Constructor, Garaventa-CTEC, Leitner and Kimley-Horn Associates.

On behalf of the American team Jim Fletcher said he wished to thank all involved for the excellent cooperation and stressed that the conference has no doubt been a great event and will be remembered as such

3. Future new organization and orientation of O.I.T.A.F.

While considering own activities and O.I.T.A.F's committeemen's the Management Committee discussed the practicability of the proposal made by FIANET, the International Federation of National Associations of Ropeway Operators.

a. Harmonisation of standards

A substantial part of the objectives of harmonisation of standards to which O.I.T.A.F. have committed themselves has been achieved in the meantime by the European Union that published a European Directive relating to cableway installations designed to carry persons and by CEN who have undertaken to produce standards for ropeways. That notwithstanding O.I.T.A.F. have the possibility to suggest amendments and additions based on the teachings of their own experience and experience made in other continents.

b. Innovation

Even though it is felt that O.I.T.A.F are made for such a job. many a concern has been expressed regarding future possibilities to innovate because it is feared that a restrictive interpretation or application of standards would hamper new developments. This is why O.I.T.A.F and in particular O.I.T.A.F committees will have to prepare the way for the future standardisation of innovations.

c. Research

Research must be given the topmost priority by O.I.T.A.F. committees, and in particular the research to be undertaken to solve outstanding problems and collect fundamental knowledge the committees need in order to draft O.I.T.A.F. recommendations.

d. Discussion of economic, administrative and legal questions affecting all activities related to ropeways

However achievement of these objectives ought not longer be restricted to European countries, which has been the case so far, but rather sought to achieve them at least in the most important continents by setting up, for instance, three continental sections

- America. The O.I.T.A.F-NACS section is already a reality, but attempts ought to be made to convince Latin America to join it
- Asia. The continental section Asia is one that needs to be set up.

Committees would have to be organized on a continental basis so as to reflect best the outlook and traditions, as well as, the specific problems of the continent , but the activity of all continental committees would have to be coordinated so as to offer them an opportunity to supplement each other's research, to exchange each others' experience and the results of their activity and make activity and results known to a wider public and in particular to avoid the duplication of projects.

There should be no particular difficulties in achieving the above objectives in America and with the American section. As for Asia it appears to be necessary to look for ways and means likely to facilitate the setting up of an Asian section.

Hence it appears to be necessary to further develop the dialogue with Asian ropeway countries in order to ensure the presence of O.I.T.A.F. all over the world and offer O.I.T.A.F a chance to learn from other continent's experience.

To this end it is felt that it is necessary

- to facilitate admission of new members
- to avoid spending unnecessary and expendable travel expenses
- to accelerate the process of a progressive build-up of the new organisation

This outline of a new approach to the organisation of O.I.T.A.F. is herewith submitted to the appraisal of all members of O.I.T.A.F. it being obvious that the implementation of the idea will require the active support of all members.

This applies in particular to members who have already developed own activities in Asian countries and are hence invited to show their willingness to support initiatives taken by O.I.T.A.F to set up continental sections and continental working groups.

4. Organisation of the seminar in Grenoble
O.I.T.A.F. working in close cooperation with committee n° 6 have organized and then run within the framework of SAM in Grenoble the announced seminar. A detailed report is given further down.

5. Proposal on the admission of new members of the Management Committee without the right to vote

The General Assembly that convened in Munich in 1996 has approved an amendment of the statutes providing the possibility to increase membership of the Management Committee by 5 additional members and offer the possibility to serve on the Management Committee in particular to those countries that have no representative in any of the organisation's senior bodies. Unfortunately so far no member has filed an application for membership and hence O.I.T.A.F. have sent a letter to all collective members asking them to let O.I.T.A.F. know whether they wish to serve on the Management Committee without the right to vote. A total of six members have applied for membership.

At their meeting in Grenoble the Management Committee have examined these applications and have decided to admit for the time being the following applicants as new members of the Management Committee without the right to vote

- Główny Inspektorat Kolejowego Dozoru Technicznego (Central technical railway supervisory board) Warsaw (Poland) to be represented by Dipl Ing. Stefan Krychniak
- Association of Ropeway Operators of Slovenia, GIZ, to be represented by Mr. Gorazd Bedrac
- Lavex, Ropeway Association of Slovakia to be represented by Mr. Miroslav Grešo

The three new members will hence be invited to attend the next meeting of the Management Committee

6. Approval of the draft „Technical recommendations for the Design and Construction of Conveyors intended as a Boarding Help for Chairlifts“ submitted by committee n° 1

The Management Committee have moved by a unanimous vote the approval of the „Recommendations for the Design and Construction of Conveyors intended as a Boarding Help for Chairlifts“ written by O.I.T.A.F. Committee n° 1 who are chaired by Dr. Sedivy. The Recommendations have been joined to this issue of the **O.I.T.A.F.-NEWS** and may be retrieved from the O.I.T.A.F. website (www.oitaf.org) either in German, French or Italian.



Conveyor intended as a Boarding Help for Chairlifts

7. Approval of the draft „Technical Recommendations for the Design and Construction of Uphill Conveyance Systems for Wintersports“ submitted by committee n° 6

The Management Committee moved by a unanimous vote the approval of the „Recommendations for the Design and Construction of Uphill Conveyance Systems for Wintersports“ written by O.I.T.A.F. Committee n°6 who are chaired by Ing. Francis Crouzet. The Recommendations have been joined to this issue of the **O.I.T.A.F.-NEWS** and may be retrieved from the O.I.T.A.F. website (www.oitaf.org) either in German, French or Italian.



Uphill Conveyance System for Wintersports

Organisation of the Seminar in Grenoble

Pursuant to the decision taken two years ago to organize each year a seminar O.I.T.A.F have organized this year a seminar in Grenoble in conjunction with SAM on the following theme

„ORGANISATION OF SAFETY AT WORK AS ADOPTED IN ROPEWAY OPERATION“

Committee n° 6 chaired by Ing. Crouzet have accepted to organize this seminar and have done it with a highly satisfactory result. 8 lecturers have indeed accepted to deliver papers and the President of O.I.T.A.F had the pleasure to welcome more than hundred participants.

The original version of the following papers may be loaded down from the O.I.T.A.F. Homepage (www.oitaf.org) or sent to you on request made to the O.I.T.A.F. Secretariat.

- Safety at work policy of an industry -
submitted by Alain SOURY – LAVERGNE SNTF (France)

- Safety at work approach to the design of monocable aerial ropeways -
submitted by Hervé PETIT – STRM (France)

- Economic and technical support given to actions taken by the French health and safety board with a view to promoting safety at work -
submitted by Michel GRANIER – CRAM (France)

- Application of the European Directives and of the Italian legislation to transportation by rope in Italy -

submitted by Mauro JOYEUSAZ – CERVNO SpA (Italy)

- Safety requirements for rescue equipment in view of the requirements laid down in the European Machine Directive and requirements for the personal safety equipment -

submitted by Fritz MAYER – SUVA (Switzerland)

- European standards' approach to safety at work -

submitted by Wolf Dieter FEIX, Railways Health and Safety Board, Hamburg – Conve-nor of the CEN TC 242 ad hoc working group (Germany)

- Application of safety criteria to the everyday work on ropeways -

submitted by Jean-Paul HUARD – POMA (France)

- Design and solutions adopted by ropeway manufacturers to reduce casualty risks of employees while operating or carrying out maintenance work of detachable ropeways -

submitted by Christoph HINTEREGGER – DOPPELMAYR (Austria)



The Lecturers, President, Vice-President and Secretary General of O.I.T.A.F.

European Directive relating to cableway installations designed to carry persons

With reference to the announcement in the last issue of the **O.I.T.A.F-NEWS** we can now confirm that the EU Directive 2000/9/EC relating to cableway installations designed to carry persons has at last been approved by the European Parliament and the Council on March 20, 2000 and published in the Official Journal of the European Communities on May 3, 2000. Ever since the first initiative taken by the European Commission O.I.T.A.F have given their full support to the intuitive and elaboration of the directive by making own positions known to the competent bodies of the European Commission either verbally, or by submitting to them their position documents. Now, at last ten years of labour were crowned by success. The first steps were made in 1989 by the Italian and French experts (Prof. Greco and Monsieur Cambau) who were given by the European Commission the mandate to define essential requirements. Later on they were joined by experts of the European Commission (Monsieur Mourarau) and were asked to prepare a first draft of the future directive. Their draft, which has been revised several times was at last submitted to the Economic Committee of EC, which repeatedly discussed the draft in many of its sessions, most of which were chaired by a different president, without a positive outcome till 1998. At last a breakthrough in 1998 when member countries of the EU finally reached an agreement and the European Commission and the most important countries in the field of ropeway transportation accepted a compromise which crowned with success the efforts of all these years. It should be pointed out that the success is due to the relentless and stubborn efforts of our president in office, Dr. Kühschelm, and Dipl. Ing. Starnberger, officers of the Austrian Ministry for Transports who have done their best in order to find a common denominator for the different positions and make it acceptable to everybody.

Scope of the Directive

The Directive is primarily intended for cableway installations put into service in tourist resorts, but may also be applicable to cableway installations used as urban transport facilities. This definition of the scope of the Directive

automatically introduced a kind of order of priority of the systems. even though it is almost certain that in future cableway installations will have a growing importance as an urban transport facility and growing importance in other areas, such as transport facilities in airports for instance.

Field of application of the Directive

The Directive is applicable to all cableway installations designed to carry persons, i.e. is concerned with the following systems

- funicular railways and other installations with vehicles mounted on wheels or other suspension devices where traction is provided by one or more cables
- cable cars where the cabins are lifted and/or displaced by one or more carrier cables; this category also includes gondolas and chair lifts.
- drag lifts, where users with appropriate equipment are dragged by means of a cable

The Directive shall not apply to

- lifts within the meaning of Directive 95/16/EC
- cable operated tramways of traditional construction
- installations used for agriculture purposes
- on-site or mobile equipment for use in fairgrounds and/or amusement parks which are designed for leisure purposes and not as a means for transporting persons
- mining installations or on-site installations used for industrial purposes
- cable-operated ferries
- rack railways
- chain-driven installations

Enforcement of the Directive

Member States shall adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive not later than 3 may 2002

Objectives of the Directive

- Approximation of significant divergences of provisions contained in national laws, regulations and administrative provisions in terms of specific procedures adopted by the national industry, as well as regional traditions and know-how.

- Establishment of a free market for cableway installations by specifying essential requirements that are equally binding for all Member States and shall have to be met by all Member States
- Provision of identical safety levels for all users of cableway installations subject to the territorial authority of EU Member States
- Introduction of harmonized commissioning procedures of safety components and sub-systems
- Specification of harmonized requirements for inspection and testing to be equally applied by all Member States
- Application of 13 harmonized CEN standards on safety requirements for passenger transportation by rope
- Compulsory marking of all safety components with the CE-mark

What are the new implications and consequences for Member States

Governmental supervisory boards

There should be no important changes of the national authorisation procedures for the construction and commissioning of cableway installations the choice of the procedure being a decision which is left within the competence of Member States. Hence it is most likely that in most cases Member States will continue to specify procedures they have already enforced. Yet Member States will have to take legal provisions to deal with the procedure for the approval of certification bodies, i.e. the certification body Member States are requested to notify to the authorities of the European Union. These „notified bodies“ shall be given the responsibility to certify the conformity of safety components and subsystems in accordance with one of the conformity certification procedures specified in the Directive. It should be pointed out that it has been accepted that in some countries certification of conformity may be issued, during a given period of transition, by Governmental bodies, provided they are not the responsible Agreement body.

CEN standards, once they are completed, will replace national safety regulations and shall have to be used to assess conformity with essential requirements listed in Annex II of the Directive in accordance with the specifications given in Annex II. Supervisory bodies are facing a new position both in

are facing a new position both in terms of their agreement and agreement procedure and as well as in terms of application of technical safety regulations. Seen that CEN standards specify requirements for precommissioning inspection, maintenance and operational inspection (prEN 1709) as well as operational requirements (prEN 12397) it is very much likely that these provisions will also affect the supervisory board's position.

Manufacturers

Manufacturers will be most deeply affected by the changes brought about by the Directive. So far none of the terms „safety component“, „subsystem“, „installation“ or „infrastructure“ were terms they would use.

Safety components are identified by the so called safety analysis (this is also a new concept), the six subsystems are listed in Annex I of the Directive and the installation consists of the infrastructure and the subsystems listed in the Annex. Infrastructure in turn is a concept that encompasses the layout, system data, station structures and structures along the line without which no installation can be built or operated..

As for construction and commissioning the Directive specifies the following procedures
Safety components

The Directive rules that the conformity assessment shall be carried out by a notified body in accordance with the assessment procedure and „modules“ adopted in virtue of the decision of the Council 93/465/EEC. This implies that manufacturers shall have to operate a quality assurance system, which actually is already the case for the most important manufacturers.

Subsystems

Conformity assessment of subsystems shall be carried out by the notified body in accordance with the procedure specified in Annex VII of the Directive

The installation

Construction and commissioning of the installation is governed by the procedures established by Member States for their territory. Hence it is most likely that procedures established by Member States will differ from each other. Some countries may decide to entrust one part of the procedure, for instance precommissioning inspection or acceptance control to the „notified bodies“, whilst other countries may decide to confirm the actual proce-

ture and entrust the precommissioning inspection to the governmental supervisory board.

Operators

Implications for operators are by far less trenchant. Actually the situation changes to the advantage of manufacturer who will be in the position to buy the same product and be offered the same conditions in all member states. Their position is hardly affected by the new procedures that govern the construction and the commissioning of installations because the Directive does not cover issues related to the operation of installations or operational inspection in service. Hence these issues are subject to national regulations to be established by Member States.

The only requirements related to operation specified in the Directive are the so-called „operational requirements“ i.e. all technical solutions and measures affecting design and execution in that they need to be taken for the sake of the safety of operation of the installation and „maintenance requirements“ i.e. all technical solutions and measures affecting design and execution in that they need to be taken in order to make sure maintenance can be done properly (servicing, inspection and repair) and that hence safety of operation of the installation is guaranteed.

Hence implications of the Directive will hardly affect the present situation, such as licensing conditions or concessioning, staff, training of the staff etc. nor affect other issues related to the operation of ropeway installations.

That notwithstanding operating conditions and operational inspection will have to comply in future with the safety requirements specified in CEN standards (prEN 12397 and prEN 1709) and hence entail a change of present operating procedures.

Conclusion

As you may see only construction of installations and to some extent operation are covered by the provisions of the Directive. That notwithstanding this is a first step leading to the harmonisation of safety requirements. As for the operation of installations major and minor differences between the regulations of Member States will persist in the future, seen that only some aspects of the operation of ropeway installations are covered by CEN standards which however do not address is-

such as training, number of staff, physical and psychological requirements for staff, specific areas of responsibility of the staff, etc.

CEN Standards

Another meeting of CEN TC 242 convened in Munich on April 6 and 7, 2000 and discussed draft standards for safety requirements for passenger transportation by rope. Both the President of O.I.T.A.F., Dr. Kühschelm, and the Secretary General of O.I.T.A.F. have attended the meeting

The President of CEN TC 242, Monsieur Fougea, informed the meeting that the European Commission has conferred to CEN the official mandate for the elaboration of safety regulations for cableway installations designed to carry persons.

The meeting had a very long agenda before them and this is why once again no time was left for the discussion of prEN 12929-2 – General requirements, part 2 : Additional requirements for jig back bicable aerial ropeways without carrier truck brakes. On the other hand the meeting covered part of the standard prEN 13107 – Civil engineering works and expects to cover the remaining part of the standard at the next meeting.

Discussion of standard prEN 12930 has been completed and the draft released for formal vote with minor amendments and forwarded to the CEN Technical Bureau.

CEN TC 242 approved a proposal submitted by Austria to proceed to a round robin test of the method specified in prEN 12930 to calculate the line and the method specified to calculate the longitudinal section and to chose to this end significant examples.

In order to give you an idea of the present situation with regard to CEN standards for safety requirements for passenger transportation by rope I thought it to be best to list all standards and indicate the latest developments of each of them

Progress sheet of standards

Standard 1 – Terminology (prEN 1907)

Decision taken by TC 242 to release the draft for formal vote

an additional draft has been approved as working document

Standard 2 : General requirements (prEN 12929 – part 1 and part 2)

Part 1 : Requirements applicable to all installations

Decision taken by TC 242 to release the draft for formal vote

Part 2 : Additional requirements for jig back bicable aerial ropeways without carrier truck brakes. Yet to be discussed in TC 242 (discussion has been postponed twice)

Standard 3 : Calculations (prEN 12930)

Decision taken by TC 242 to release the draft for formal vote

Standard 4 : Ropes (prEN 12927, parts 1, 2, 3, 4, 5, 6, 7 and 8)

Part 1 : Selection criteria for ropes and their end fixings

Part 7 : Inspection, repair and maintenance and

Part 8 : Non destructive testing

Having been released for a CEN enquiry comments are now discussed and the draft revised

Part 3 : Long splicing of 6 strand hauling, carrying and towing ropes

Part 5 : Storage, transportation, installation and tensioning

CEN enquiry closed

Part 2 Safety factors

Part 6 Discard criteria

CEN enquiry still running

Part 4 End fixings (WI 00242028)

Drafting still in progress

Standard 5 Tensioning devices (prEN 1908)

Decision taken by TC 242 to release the draft for formal vote

Standard 6 Mechanical devices (prEN 13223)

Decision taken by TC 242 to release the draft for formal vote

Standard 7 Carriers (WI 00242023/4/5)

Part 1 : Grips, cabins, chairs, T-bars and plat-
ters (WI 00242023)

CEN enquiry closed. Comments and remarks are being examined by the working group

Part 2 Carrier trucks, suspensions of aerial ropeways, rods and spring boxes, carriages, onboard brakes (WI 00242024)

Drafting still in progress

Part 3 Fatigue testing
(WI 00242025)

Drafting still in progress

Standard 8 Electrical installations (prEN 13243)

CEN enquiry closed. Comments and remarks are being examined by the working group

Standard 9 Civil engineering works (prEN 13107)

The draft is being examined by TC 242

Standard 10 Precommissioning inspection, maintenance and operational inspection

Decision taken by TC 242 to release the draft for formal vote

Standard 11 Recovery and evacuation (prEN 1909)

Decision taken by TC 242 to release the draft for formal vote

Standard 12 Operation (prEN 12397)

Decision taken by TC 242 to release the draft for formal vote

Standard 13 Quality assurance (prEN 12408)

Decision taken by TC 242 to release the draft for formal vote

Standard „Y“ Electromagnetic compatibility of ropeways

The decision to set up this working group has been taken by TC 242 at their meeting in Milano in autumn 1999 The working group will start their activity as soon as a convenor has been nominated

The conformity of all these standards with essential requirements of the Directive relating to cableway installations designed to carry persons shall have to be assessed prior to their final approval.

ACTIVITIES OF O.I.T.A.F. COMMITTEES AND O.I.T.A.F WORKING GROUPS

Committee n° 1: Ropeway engineering and technical recommendations

Chairman : Dipl.-Ing. Dr. techn. Peter Sedivy (A)

In 1999 the committee met twice

The first meeting convened on February 24 and 25, 1999 in Dübendorf near Zürich in the

meeting room made available by the Eidgenössischen Materialprüfungs- und forschungsanstalt (EMPA the Federal Materials Testing Institute). 17 members attended the meeting

The second meeting was held on September 30 and October 1st 1999 in a meeting room made available by the Schweizerische Unfallverhütungsanstalt (SUVA, the Federal Institute for Prevention of Accidents). 18 members attended the meeting.

A new system of organisation that has been adopted has given satisfactory results in terms of members' attendance at meetings. Regular members now have the possibility to delegate a deputy to represent should they be prevented from attending the meeting. Deputy members can thus represent their interests and contribute to the continuity of the acquired knowledge or information. There is another advantage to it in that work involved by reporting on the outcome of the meetings can be restricted to the essential aspects and a discussion on issues that have been tackled in a meeting can be directly picked up and the discussion continued in the next meeting. This continuity is of particular importance in times the committee is about to write a recommendation. The meeting was thus opened to additional experts who attended the meetings as deputy representatives of a regular member and even committed themselves to carrying out some specific studies. Following deputy representatives have been appointed so far : Dipl.-Ing. Hadorn as deputy of Dr. Gassmann, Ing. Meindl, Ing. Schmidinger and Ing. Feuerstein as deputy representatives of Dipl.-Ing. Hinteregger

The composition of regular members has also changed in the meantime. Dott. Ing. Bruno Brani (I – consulting engineer) has resigned from membership after having served for many years on this committee. The new members who have joined the committee are Jean-Claude Bonneton (F –STRM) and Jean-Paul Huard (F –Pomagalski)

Having first examined administrative issues the committee worked at full stretch at the last two meetings determined as they were to finalize the draft „Recommendation for the Design and Construction of Conveyors intended as a Boarding Help for Chairlifts. The committee revised once again the technical content of the draft and decided to adopt a number of editorial changes. The final draft

has been submitted to the approval of the Management Committee of O.I.T.A.F who approved it.

It should be recalled that another draft has been completed last year by committee n° 1 and has already been circulated with the **O.I.T.A.F-NEWS** 1999, 2nd issue.

The situation with regard to the other recommendations the committee had been asked to draft is as follows

I „Recommendations for the Design and Construction of Double Monocable Aerial Ropeways with regard to their specific features

At their meeting in Berne the committee decided that the recommendation to be drafted should address the specific features of the Funitel system, as well as those of other systems that pose the same problems (having also two carrying hauling ropes), i.e. the DMC and the DML systems. They also reached agreement on all issues that are directly affected by the specific features of these systems and should for this very reason be dealt with in the Recommendation. the agreement has been reached on the following issues

1. Definition of the system
2. Design wind loads (during and out of operation)
3. Track gauge
4. Maximum structure gauge, lateral clearance
5. Amplitude of the transverse swing
6. Limitation of the lateral winding angle
Span length limitation
7. Safety distance at the end of the conveyor
8. Line speed
9. Rope tension to load ratio
10. Tower roller pressure
11. Grip pressure, Grip lorry
12. Number of grips
13. Minimum resistance to slip
14. High of the sheave flange
15. Shape of sheave grooves
16. Monitoring of rope synchronism, skewing of the travelling carrier due to the differential elongation of the ropes
17. Monitoring devices (for instance redundancy, line, stations)
18. Longitudinal torsion of grips

In the meeting several members of the committee were asked to contribute to the elaboration of the draft and accept responsibility for a or several parts of the recommendation and the decision was taken to examine their drafts during the first meeting to be held by the committee in the year 2000

II. „Recommendations for the design and construction of devices that trigger a forcibly actuated separation of grip and rope in the station of detachable ropeways.

The need for such a recommendation was clearly demonstrated by a video film shown by Dipl.Ing Zbil. Accepting a proposal made by the French members the committee agreed to widen the scope of the recommendation and that for this reason it was essential to clarify the following questions of principles

1. Requirements to be met by this device. (Circumstances in which such a device is needed)
2. The actual purpose and function of the device needs a clear definition

The second meeting of committee n° 1 convened in Innsbruck on May 11 and 12 2000 in the premises of the University of Innsbruck.

Working group : Non public ropeways : „Material handling ropeways and cable cranes“

The working group is chaired by Dr. Ing. Achille Bonini (I)

After a long standstill the committee met again in Bolzano. The meeting was chaired by Dr. Ing. Bonini and attended by the President of committee n°1 and the Secretary General of O.I.T.A.F. 9 experts were present representing different systems and fields of application of material handling ropeways and cable cranes..

The meeting felt that the convenor, Dr. Ing. Bonini, ought to have a secretary to assist him in his activities and decided to nominate Dr. Ing. Graziano, representing the company POMAITALIA, Secretary of the working group.

Revision of the technical recommendations for the construction and operation of material handling ropeways und cable cranes (O.I.T.A.F. Bulletin n° 8) and elaboration of a draft recommendation for temporary material

handling ropeways are the two main objectives of this working group.

In order to accelerate own work the working group have taken the following decisions to request the convenor of the working group to send to all members a revised draft of chapter 1 for them to examine it to have a risk analysis made for this type of ropeways

to have the problem of accidents and risk of accidents examined

and to split down the work to be done into three groups and entrust the different parts to the following task groups :

- Cable cranes
- temporary material handling ropeways
- Permanent material handling ropeways

Members agreed to use wherever possible, electronic means of communication (fax, e-mail, etc)

The committee felt that operators of material handling ropeways ought to be invited to attend the meetings of this working group and contribute to the discussions with their input of their experience of operational problems.

It has been agreed to convene the next meeting on October 2 and 3 in Bolzano

Committee n° 2: Characteristics and inspection of ropes

President : Prof. Dr. Ing. Enrico Bazzaro

The committee met in Milano on March 9 and 10, 2000. Approving a proposal made by Prof. Giorgio Paolini attending members decided to nominate Prof. Enrico Bazzaro chairman of this committee. Prof. Paolini accepted to continue to serve on the committee and assist the new chairman.

The committee addressed all the issues which had been suggested as likely scope of the committee (all these issues are listed in the last issue of the **O.I.T.A.F.-NEWS**) and agreed that the following issue should be given top priority :

Optimization of the safety level of closed coil carrying ropes

What are the additional measures that need to be taken in order to reduce the minimum permissible safety level.

In view of the discussion of this issue Prof. Paolini has suggested to adopt a table of requirements he had plotted and invited mem-

bers of the committee to consider these requirements and communicate their views. Seen however that at the last meeting attendance of invited experts was very poor, the Management Committee wondered whether this committee should be disbanded or kept alive and decided that O.I.T.A.F. should confirm its mission only if a reasonably higher number of rope manufacturers and operators would have confirmed their willingness to participate and confirmed their attendance at the meetings of the committee. The Management Committee decided to take a final decision on the future of this committee after the committee's next meeting, scheduled to take place on October 11, 2000 in Innsbruck.

Committee n° 3 : Electrical equipment and components of ropeway installations

Chairman : Dipl. Ing. Ruedi Schüle (CH)

In the period under review the committee met on September 20, 21 and 22, 1999 in Kitzbühel and again on March 29, 30 and 31, 2000 in Bolzano (I). At their meeting in Kitzbühel the committee addressed items of their permanent agenda i.e. incidents and disorders during operation. Experts addressed in addition the following issues

Verification of safety as part of the pre-commissioning inspection

The exchange of information has shown that the approach is different from one country to another, in that each country specifies a different type of verification. The Austrian authority specifies exactly the type of certificate, verification, test report etc which the manufacturer or respectively the operator have to submit to the inspector carrying out the pre-commissioning inspection. Manufacturers of the electrical equipment are requested to certify that the installation or component has been designed and produced or assembled in accordance with the set specifications and the rules of the relevant code of practice. In Switzerland a working group has been set up and given the remit to draft guidelines for the verification of the safety. In Italy ropeway manufacturers have to declare that the installation meets requirements laid down in standards and regulations. However in some instances the Ropeway Commission in Rome is requested to make an expertise in the case of special installations and components. In

Germany there is nothing like a „safety verification“ in that detailed documents and verification certificates have to be submitted to TÜV for the preliminary approval of the project. Projects are submitted to an accurate analysis which includes also its check against safety principles. TÜV may request manufacturers of the electrical installation and components to submit additional certificates of verification to the authority carrying out the pre-commissioning inspection.

Protection of line safety circuits

Here again the exchange of information has shown that requirements for protective measures vary from one country to another. Austria, for instance, does not require any short circuits or shorts to earth of the leads of cables to be monitored, whilst it is a safety measure which is specified in the Italian and German regulations. Austria and Germany have issued specifications for the cabling. The approach to the insulation of non-insulation of breaking rod switches is also different from one country to another. There is also from one country to another a differing approach in regard of the power supply to the power circuit. In Italy, for instance, the power supply from the main must be fed into the return station.

Automatic operation of funiculars and reversible aerial ropeways

Requirements for mechanically operated doors of reversible aerial ropeways and funiculars : what are the monitoring requirements ?

Here again requirements vary from a country to another, yet all countries specify monitoring requirements for the assessment of the closed position of the doors while Germany is the only country that requires the locking of the doors to be monitored as well..

The committee also exchanged information on regulations regarding the „Emergency stop in a gallery“ in the case of fire

Fire or other disorders of automatically operated funiculars

Members of the committee asked themselves whether requirements for fire resistant execution and the use of fireproof materials ought to be specified in a standard for electrical installations. The discussion has shown that such an issue cannot be settled in a standard for electric installations and ought to be dealt with in a standard for general requirements.

Requirements for the recovery drive :
recovery drive with or without remote control equipment ?

It emerged from the discussion that the different countries have adopted diverging views on this issue. In Austria no mode of operation that triggers an automatic stoppage of the installation may be used in rescue operations with a recovery drive while in Germany and in Italy the remote control equipment must be operative during rescue operations with the recovery drive, provided the necessary shunting devices have been installed. In Switzerland requirements specify the tripping devices that must be operative. The required reduction of the operating speed is specified in three countries : Austria (1m/s), Italy (1m/s) and Switzerland (2m/s).

A detailed report on the other issues that have been addressed by the committee during their meeting in Bolzano will follow in the next issue of the **O.I.T.A.F.-NEWS**.

They are as follows :

- Occurrence of operational incidents and disorders
- The use of stored program-controls and of complex electronic systems
- Signalling and electronic storage of disorders and operating states

The meeting has been rounded off by a visit to the company Leitner where participants were given the opportunity to visit the first detachable grip monocable uni-directional aerial ropeway with gearless drive.



Committee VI visiting the first detachable grip chairlift with gearless synchronous motor drive

Committee n° 4 : Legal, administrative, economic and statistical matters

Chairman : Dr. Horst Kùhschelm (A)

The committee convened for their 45th meeting in Bolzano (I) on October 13 and 14, 1999 and for their 46th meeting in Dresden (D) on May 2 and 3, 2000.

The following main issues have been addressed at both these meetings

1. Responsibility and liability of ropeway operators and ski-run owners
2. Transport conditions
3. Collection of court decisions

1. Responsibility and liability of ropeway operators and ski-run owners

Frau Dr. Wagner representing the VdS (Verband deutscher Seilbahnen (German Ropeway Association)) informed the meeting on the situation with regard to the replies to the questionnaire she has received from the Alpine countries on the following issues

- Legal basis of liability of ropeway operator in the case of accidents
- Binding obligation to take a third party insurance
- Liability of the ropeway operator for damage caused by avalanches, storm or any other external cause of damage
- Liability of the ropeway operator for injuries to persons due to the special system of transportation of a ropeway (circulatory troubles, great difference in altitude etc)
- Legal situation with regard to the responsibility for the ski-run maintenance
- Hazards that fall within the ski-run owner's liability
- Liability for accidents caused by ski-trail growers or snowmobiles
- Settlement of liability issues in the case of ski racing runs, transportation of alcohol addicts, triggering of artificial avalanches etc
- Responsibility for ski-run grooming
- Responsibility for closing ski-runs

Dr. Wagner stressed in particular the significant difference of regulations from one country to another and the difficulty to approximate these regulations the settlement of cases involving liability or responsibility

The committee intend to further discuss and analyse the replies to the questionnaire at their next meeting. The final result of their

discussion will then be published in an annex to the next but one issue of the **O.I.T.A.F-NEWS**

2. Transport conditions

Referring in particular to the rules recommended in the O.I.T.A.F. Recommendations the committee exchanged information on the present situation in the different countries. Statements listed below do not reflect a complete picture of the situation; hence additional comments and objections are welcome.

General

By and large Austria, Italy and France apply O.I.T.A.F. Recommendations on transport conditions. Even though this is the general rule, they sometimes depart from these recommendations.

Germany and Switzerland rather disregard the O.I.T.A.F. recommendations.

Significant differences of national provisions governing transport conditions

Transportation of children

Regulations for the transportation of children differ very much from one country to another and are not in line with O.I.T.A.F. Recommendations.

The only rule concerned with the transportation of children established by the O.I.T.A.F. Recommendation is based on the height of the children and rules that children less than 1,25 m high may proceed to the carrier only if they are accompanied. Special regulations may be issued for the transportation of a group or groups of children.

Austria

Austrian regulations for chairlifts specify different requirements according to whether children are less than 1,10 m high or 1,10 to 1,25 m high.

While children less than 1,10 m high must be seated in the lap of a person who is fit to accompany the child or seated on the seat next to this person, children 1,10 to 1,25 m high may be seated alone on a seat of three or four seats provided that a suitable person fit to accompany the child is seated on another seat of the same chair

Italy

In Italy application of O.I.T.A.F. recommendations for the transport of children is also but

partial : for instance children who are less than 1,25 m high may be carried alone if they are more than 8 years old.

Two years ago chairlifts designed to carry only children more than 1,10 m high and more than six years old were tested in the region of Alto Adige and Trentino. These chairlifts must satisfy the following requirements

- The safety bar of the chair must be given a shape that will prevent the child from slipping down from the chair and if children travel alone the safety bar must remain blocked during the whole travel along the track
- Speed of the installation not greater than 1,8 m/s (a possible increase of the speed is now contemplated)
- Maximum length of the installation : 500 to 600 m
- Maximum ground clearance : 6 m (so as to have always the possibility to get in touch with the children and have them within easy and rapid reach should it be necessary to rescue them)

Germany

In Germany conditions for the transport of children with chairlifts are based on the age at which school attendance is compulsory

It is an important issue and harmonisation of transport conditions appears to be essential. The committee are going to address this problem

Reimbursement of the fare.

O.I.T.A.F. recommendations recommend the reimbursement of the fare if passengers cannot be taken on board and carried either because some events that are within the operator's competence or circumstances which he could not prevent or cannot remedy have caused the operation of the installation to be stopped.

The same approach to this issue is adopted in the Italian and Austrian regulations of transport conditions. In Switzerland the fare is reimbursed only if the operator is guilty of an offensive action, which means that for a rule no reimbursement is paid if operation of the installation is stopped because of bad weather.

In Italy and Austria tickets that have not been used because the ticket holder has suffered a skiing accident may be reimbursed. This claim for reimbursement is not contemplated by the O.I.T.A.F. recommendations. Neither

is it contemplated by the Swiss transport conditions .

Ski pass transferability

In principle ski passes are not transferable. in Austria, Italy and Germany.

In the relevant Swiss legislation and regulations there is no ruling against cession of ski passes; hence in principle ski passes may be transferred to others but actually ropeway operators are free to decide whether to offer or not to offer to their clients the possibility to pass their ski passes to others. In France ski passes are transferable.

Seen that some of the countries have given but an incomplete or very succinct reply to the questionnaire no general synopsis or comparison of legal provisions on „transport conditions“ can be produced until the time all countries have reported a copy of their standard transport conditions

3. Collection of court decisions

It should be possible to develop a programme for an Internet research of court decisions offering to the navigator a series of keywords to find his way to court decisions on particular issues or areas of interest. The members of the committee had a long discussion on this project and welcomed the suggested solution which according to them is of a kind that could bring about a significant improvement of communication and information. All members felt that the information stored in Internet should be made accessible to all persons who are directly interested in getting this information and suggest to enter this information into the O.I.T.A.F. Homepage.

The members of the committee agreed that the programme should be first accurately tested by the French members of the committee and once this has been done the procedure of publication discussed with the Secretariat of O.I.T.A.F.

The next meeting of the committee has been scheduled to take place on October 19 and 20 in Nizza (F).

Working group : Environment Forum

The appointed convenor of this working group is Techn. Rat Dipl. Ing. Michael Manhart (A)

The working group convened on November 22 and 23, 1999 in Saint Vincent (I)

The meeting discussed two important issues

- Proposals for the application of art. 13 of the protocol on „Tourism“ of the Alpine Convention
- Snowmaking additives

Proposals for the application of art. 13 of the protocol on „Tourism“ of the Alpine Convention

The working group established that all involved European countries have signed the Alpine Convention but none of them has so far ratified it. That notwithstanding the working group believe that the protocol ought to be enforced within the shortest possible delay. In addition it has been recalled that at their last meeting in Interlaken on October 20 and 21, 1999 the Alpine Convention have set up a Settlement Committee having the task to settle divergences. Their remit includes also divergences due to diverging or contradictory translation. Furthermore the Alpine convention decided to cover two additional areas of interest, i.e. Environmental Quality Objectives and Avalanches.

The working group felt that the protocol on Transports ought not cover issues that are being dealt with in other protocols, such as for instance the protocol on „Tourism“. The support of the national ropeways association is needed to achieve this objective.

As for the protocol on Tourism members of the committee exchanged views on the use of helicopters as means of transportation, it being quite obvious that it is necessary to make a clear distinction between their use in rescue operations or as means of transportation to the ski trail.

In France helicopter transport of tourists is forbidden, in Italy regulations vary from one region to another, in Alto Adige this type of transport is forbidden. In Switzerland there are 48 helicopter landing areas where disembarking of passengers is permitted; provision of additional helicopter landing areas for passengers will not be permitted.

The committee also addressed the problem of access to ski resorts and car parks. Here again the discussion showed that solutions differ considerably from one country to another. In Switzerland for instance there are ski resorts in which no vehicular traffic is permitted, while in most French ski resorts

the number of parking lots is identical with the number of flats offered by residential buildings, which is quite important because 93 % of visitors rent a flat for their holiday and 91 % of French visitors travel in their own car despite the fact that train connections are quite good.

The working group agreed to give further consideration to this issue and examine it in the light of both the protocol on tourism and the protocol on transports and then submit a position paper.

Snowmaking additives

Snowmaking additives, and in particular Snomax, was another issue the working group addressed in that meeting. It appeared from the discussion that views on the use of these additives were all but uniform and that some Swiss cantons, for instance, allow additives to be used subject to an assessment of their environmental safety, while its use is forbidden in other Swiss cantons. Snowmaking additives are not used in Italy. The working group supports the idea of having a research project commissioned involving operators, men of research, established research institutes and environmental associations, such as for instance CIPRA.

The working group agreed to convene for another meeting in Paris on June 8 and 9.

Committee n° 6 : Optimization of ropeway and ski-tow operation

President : Francis Crouzet (F)

The committee convened for a meeting on January 13 and 14, 2000 in Lyon.

The objective of the meeting was threefold

- organization of the O.I.T.A.F. seminar in Grenoble
- to finalize the draft „Technical Recommendation for the Design and Construction of Uphill Conveyance Systems for Wintersports“
- Rules for the use of power driven uphill conveyance systems
- Remote control

The first two issues may be regarded as having been settled in the meantime, seen that in the meantime the seminar has taken place in Grenoble and the draft recommendation has been approved

The two other issues have been examined at length..

Rules for the use of power driven uphill conveyance systems

The committee was informed that France has drafted several additions to the ten guidelines for users of ski-runs. These additional rules are at present being examined by the members of the committee and will be discussed at the next meeting of the committee.

Remote control

The committee exchanged information on the situation in the different countries and broached a discussion on remote control, in particular the situation in Italy, as well as on the actual hazard. Members felt that all installations ought to be fitted with a remote control system but could not agree on the agenda the committee ought to adopt to address this issue with a view to drafting in the end a technical recommendation for remote control. Zum Schluss eine Neuigkeit bei der Bergung von Fahrgästen:



And here another comfortable way to rescue passenger

An additional bit of information for O.I.T.A.F. members

All lectures delivered during the International Conference are now available and may be forwarded by the Secretariat on request

You may also request the Secretariat to have you have the „Technical Recommendations for the Design and Construction of Conveyors intended as Boarding Help for Chairlifts“ and „Technical Recommendations for the Design and Construction of Uphill Conveyance Systems for Winter sports“

The same applies to lectures delivered to the seminar in Grenoble on the „Organisation of Safety at Work of Ropeway Installations“

O.I.T.A.F. on INTERNET

The access to files is restricted to O.I.T.A.F. members

Members of O.I.T.A.F. have now the possibility to retrieve directly

The Technical Recommendations of O.I.T.A.F. as well as all papers the O.I.T.A.F. committees have produced over the past years. Have a try. In addition you may now retrieve regularly the last issue of the *O.I.T.A.F.-NEWS*. All you need to do is to enter the password that has been posted to you.

General

Access to the German, English, French, Italian or Spanish version of the O.I.T.A.F. homepage is obtained by entering the address ><http://www.oitaf.org>. The homepage provides the following information on O.I.T.A.F.

- What is O.I.T.A.F.
- Structure of O.I.T.A.F.
- O.I.T.A.F. statutes
- Activities of O.I.T.A.F.
- NEWS and other information on O.I.T.A.F.
- O.I.T.A.F. bodies and their members
- O.I.T.A.F. committees
- Technical Recommendations, papers and statistical surveys produced by O.I.T.A.F.
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