



Ing. Jan Zeman, CSc.

**Energetická a environmentální náročnost jednotlivých druhů dopravy
v ČR v r. 2004**
**Energy and environmental demand of individual modes of transport in the
Czech Republic in 2004**

This paper deals with comparing energy, emission and environmental demand of individual modes of passenger and freight transport in the Czech Republic on 2004. It is related to basic transport statistics in the Czech Republic, published in the 2005 Transport Yearbook and in the study Transport and Environment from 2005, elaborate for the Ministry of Environment of the Czech Republic. This statistics is completed by electrical modes of transport, with energy demand based on available data and emission demand being derived from emissions of coal power plants of ČEZ, a.s. and from the share of non-emission power plants on energy production in the Czech Republic. Further extension is shown in the table elaborated by the author, dealing with gross uncalculated costs including estimations of the most important externalities groups for five transport modes in the Czech Republic in 2004. The paper shows that current methods of measuring effectiveness of transport infrastructure constructions can be improved by using specific externalities of individual modes of transport

Ing. Jan Hlaváček - Ing. Jiří Konečný - Ing. Radek Sedláček

**Postup implementace „TSI-Hluk“ v České republice - současný stav, možnosti
řešení, stanovisko dopravce**
**Progress of “TSI-Noise“ implementation in the Czech Republic – current state,
solution options, standpoint of the operator**

This paper deals with the progress of implementing the EU Directive “TSI for Subsystem Freight Wagons – Noise”. It presents an overview of possible solutions, including the role of the state in meeting the Directive requirements, anticipates potential problems that may occur in the Czech Republic by implementing the Directive and indicates approaches how to meet its requirements

Ing. Aranka Petruccová

Brownfields
Brownfields

Brownfields are one of the most actual ecological-economical problems of today; it is necessary, therefore, as far as sustainable development is concerned, to pay maximum attention to it. The regeneration of brownfields is and will be financially extremely demanding, its cost oversteps by far municipal and state budget possibilities. That is why it is necessary, to utilize funds offered by the European



Union to the greatest extent possible (structural funds, the Cohesion fund and other programmes prepared especially for this issue).

doc. MUDr. Milan Tuček, CSc.

**Zdravotní způsobilost u železničních profesí
Medical fitness assessment of railway occupations**

The author describes the present situation in medical fitness assessment of railway occupations in the Czech Republic in context with transposition of EU directives in the field of occupational health and safety into national legislation. Occupational medical services as a medical part of occupational health services are defined as a complex of preventive medical examinations, workplace inspections, consultations, and recommendations provided by medical staff (occupational physicians and nurses). The core competences of recognized occupational physician are listed.

František Verner

**Jazyková a komunikační studie CER/EIM/UIC; První výsledky
Language and Communication Study CER/EIM/UIC; First Results**

České dráhy, a.s. participates in three working groups of CER "Language and Communication Study", aimed at engine drivers and other on board staff to be assigned in the future period in cross-border interoperable service. The paper deals with the orientation and progress of work of these groups, their purpose being to provide both CER and ERA with documents for amendments of TSI Subsystem "Traffic Operation and Management", to provide DG TREN of the European Commission with documents to complete the directive draft on the certification of employees mentioned above and to provide European railway undertakings with a tool for assessment of language competency. Activities on CER language study had been started in September 2006 and representatives of UIC (Safety Platform), CER Board and other European railway undertakings and Infrastructure managers (20 railway companies altogether) are included in working groups.

Ing. Antonín Blažek

**VUZ - zkušenosti po roce působení jako notifikovaná osoba
VUZ - experiences after one year operation as the Notified Body Institute**

The article is concerned with the questions of Railway Research Institute activities as a Authorized, more precisely the Notified Body Institute for activities as regards conformity assessment of interoperability constituents and subsystems of the trans-European rail system provided by the Act. No. 22/1997 Coll. as amended on Product Technical Requirements by means of Government Regulation No. 133/2005 Coll. It



contains the first experience and knowledge from the orders preparation and realization after one year operation as the Notified Body Institute. It also states some findings and recommendations resulting from the meetings of Notified Bodies (NB-Rail) - coordination groups that operate in the area of trans-European rail system within EU.

Ing. Pavel Špráchal

**Systém managementu jakosti v nákladní dopravě Českých drah, a.s.
Quality management system at České dráhy, a.s. freight transport**

The paper deals with the process of project realization for quality system management implementation and its consecutive certification at the freight segment of the company České dráhy, a.s. over the years 2004-2007, with its procedures and benefits for increasing company competition.

Ing. Petr Červinka

**Výměna dat o zásilkách mezi evropskými dopravci a zapojení ČD, a.s.
Data exchange concerning consignments between European carriers and involvement of ČD, a.s.**

European railway undertakings have been introducing consignment note data exchange from the early nineties already with objective to rationalize consignments hand-over. Several technical options exist: a central system ORFEUS and two main bilateral exchange solutions. ORFEUS covers most of Western Europe. Eastern countries choose bilateral exchange for many reasons. Consignment data exchange is a preparation and prerequisite for the abolition of paper documents and for their replacement with an electronic consignment note.

Ing. Miloš Procházka

**Implementace controllingu v prostředí SAP CO ve společnosti
České dráhy, a.s.
Controlling implementation in the SAP CO environment at the company
České dráhy, a.s.**

The paper deals with the progress of Controlling Implementation in the SAP CO environment of SAP / R3 system at the company České dráhy, a.s. over the years 2004 - 2007. It introduces more deeply the contents of Phase 3 – 5 of the project which served as basis for rolling stock performance managing.



Ing. Mgr. Robert Číhal, CSc.

**Číselník základních bodů jako integrační nástroj IS infrastruktury a dopravy
Code list of basic points as an integration tool of the infrastructure and
transport IS**

Various aspects of computer supported systems of the track and rails network description, using the “point and edge” method as recorded according to the IS needs and regulations, based on the geodetic and construction basis and railway localities described for transport operation purposes are discussed in the report. Apart from individual needs of individual tasks usage up-to-date, current international demands resulting from EU directives are taken into consideration as well. The method of the needed entities hierarchization is designed as a possible way of supporting standardization and mutual data certification, followed by relations construction defined between the patterns and their images. The results of IS projects currently prepared by ČD or SŽDC respectively dealing with these problems, are used in the paper.

Ing. Petr Kolář

**Radioblok
Radioblock**

The current situation on regional lines definitely requires introducing a control command system that would reduce operation costs of railway traffic control and installation maintenance and bring an increase of safety and speed on these lines. This paper aims to bring information on perspective technical equipment called “Radioblock”, which has all necessary prerequisites to meet the requirements mentioned above and to enable a competitiveness increase of railway transport also on regional lines, being operated at present pursuant to Regulation ČD-D3.

Ing. Martin Lidmila, Ph.D. - Ing. Leoš Horníček, Ph.D.
- doc. Ing. Hana Krejčířiková, CSc. - prof. Ing. Petr Tyc, DrSc.

**Srovnávací měření modulů přetvárnosti podle metodiky ČD a DB - informace
o výsledcích grantu MD ČR**

**Comparative Measurements of Moduli of Deformation in Accordance with
Czech and German Methodologies – Results of Grant Project of Ministry
of Transport**

The paper deals with the results of comparative measurements of moduli of deformation in accordance with Czech and German methodologies. Measurements were carried out on subballast layers of track bed model in the experimental box and also on sand and soil in-situ. Correlations between the static modulus of deformation



specified in accordance with the Czech and German methodologies were determined. The results of measurements show that the values of the moduli of deformation established in accordance with the Czech methodology cannot be substituted for the moduli of deformation established in accordance with the German methodology. This fact has a crucial importance for railway substructure design in the Czech Republic.