

UDELEŽBA ODDELKA NA 8. KONFERENCA SLOVENSkih ELEKTROENERGETIKOV – Čatež 2007

Od 28.5.2007 do 1.7.2007 je v Čatežu potekala 8. konferenca slovenskih elektroenergetikov. Oddelek za vplive EE naprav na okolje se je na konferenci predstavil z naslednjimi referati:

1. Primož Hrobat, Rado Isaković

Ozemljitve transformatorskih postaj pri različnih sistemih ozemljevanja nevtralne točke

Povzetek – V članku je na splošno opisana problematika ozemljitev transformatorskih postaj v slovenski distribuciji pri aktualnih načinih ozemljevanja nevtralne točke transformatorja na SN delu in narejena je analiza načinov glede na napetosti dotika in koraka. Posebej je obravnavan ozemljitveni sistem TP pri resonančni ozemljitvi nevtralne točke preko Petersenove dušilke. Podane so smernice dimenzioniranja ozemljitev pri resonančni ozemljitvi nevtralne točke preko Petersenove dušilke.

Earthing transformer substations at difference systems of the neutral point connection

Abstract – The paper presents a problem of grounding transformer substations in Slovenian distribution at the actual treatment of the neutral point connection and it's given the analyse of the touch and the step voltage. It's specially treated the earthing system transformer substation at resonant earthing system with the Petersen coil. The paper is given guidance for a dimension of the earthing system of transformer substation at resonant earthing system with the Petersen coil.

2. Igor Rozman, Tone Marinček

Vpliv posameznih vhodnih podatkov na izračun hrupa VN daljnovodov

Umeščanje VN daljnovodov v prostor je z okoljskega vidika vedno bolj težavno. V današnjem času je prostor pomemben dejavnik, varstvo okolja in skrb za zdravje in varstvo ljudi pred vplivi iz okolja pa sta vedno bolj prevladujoča. Tako sodi hrup VN daljnovodov tudi med tiste vplive, ki v okolju povzročajo motnjo ter v določenih primerih lahko vplivajo na zdravje ljudi.

Slovenska zakonodaja o hrupu predpisuje mejne vrednosti hrupa, ki so odvisne od občutljivosti posameznega območja, kar neposredno vpliva na širino koridorja hrupa daljnovoda in s tem na samo umestitev daljnovoda v prostor.

VN 400 kV daljnovodi sodijo med vire hrupa, ki s svojim delovanjem povzročajo motnjo v okolju, zato je potrebno s tega stališča ocenjevati njegove vplive na okolje.

Hrup 400 kV daljnovodov, ki nastaja zaradi pojava »korone«, je v okolju prisoten le v večji meri ob določenih vremenskih pogojih kot so: rosenje, megla, dež, sneg,... Ti vremenski pogoji so pri izračunih hrupa bistvenega pomena, saj imajo odločujoči vpliv na jakost hrupa. Vreme pa ni edini dejavnik, ki vpliva na jakost hrupa VN daljnovodov. Pomemben vpliv imajo konstrukcijski oziroma tehnični parametri daljnovoda, ki so hkrati vhodni podatki za izračun hrupa VN daljnovodov.

V sestavku je podana tudi analiza vplivov tehničnih parametrov daljnovoda in vremenskih prilik na raven njegovega hrupa.

The influence of particular input data on calculation of HV transmission lines noise

From the environmental point of view inauguration of HV transmission lines in the environment is more and more difficult. In nowadays the space is very important factor, however the environmental protection and concern for health and safeguard of the people before the influence from the environment are even more prevailing. Noise belongs amongs those sorts of influences which causes the distraction and in some cases even influences the health of the people.

The Slovenian legislation on noise regulates the border values of noise that are depending on sensitivity of individual area. The regulation influences directly on the width of the power line noise corridor and inauguration of the transmission line in the area.

HV 400 kV transmission lines belongs amongs sources of noise that produces the distraction in the environment and therefore it needs the evaluation from its influences on the environment.

The noise from 400 kV transmission lines, which arises from the "corona" phenomenon, is present in the environment only in certain weather conditions such as dew, fog, rain, snow ... At noise calculation those weather conditions are very important as they have large impact on the intensity of transmission lines noise. However the weather is not the only influencing factor on intensity of HV transmission lines noise. The construction or technical parameters of transmission lines also have large impact and are actually the input data for HV transmission lines noise calculation.

In article are given analyses of the influence of transmission lines technical parameters and weather conditions on noise levels.

3. Breda Cestnik

Analiza elektromagnetnega sevanja DV 2 x 400 kV Okroglo – italijanska meja

DV 2 x 400 kV Okroglo (Slovenija) – italijanska meja. Pri tem je upoštevana okoljska zakonodaja, ki ureja področje elektromagnetnega sevanja.

Analysis of electromagnetic field for high voltage transmission line 2 x 400 kV Okroglo – italian border

Abstract – In the paper we present estimation and evaluation of electromagnetic field influence on the environment for construction of high voltage transmission line 2 x 400 kV Okroglo (Slovenia) – italian border. In this evaluation slovenian environmental legislation governing electromagnetic fields is taken into consideration.

4. Tomaž Živic, Urban Metod Peterlin

Razdelilna transformatorska postaja in pravilnik o EMC

Konec leta 2006 je bil objavljen novi Pravilnik o elektromagnetni združljivosti (EMC), ki bo začel veljati julija 2007. V članku opozarjamo na nove zahteve pri projektiranju in gradnji elektroenergetskih postrojev. Projektna dokumentacija bo dobila dodatno vsebino. Izvajalci, predvsem, elektromontažnih del bodo v svoje delo morali vpeljati dobro inženirsko prakso s področja EMC.

Electric power substation and emc regulations

New EMC Regulations were published at the end of 2006 with validity from July 2007. This paper points out new demands to designing and building practice of electric power substations. Design plan as well as realization documentation is going to get a new contents. During the construction it will be necessary to introduce a good EMC engineering practice.