DISTURBANCES IN THE POWER SUPPLY NETWORK OF BUCHAREST SUBWAY SYSTEM (PART 2)

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Rezumat. *În prezentul studiu este descrisă problema distorsiunilor apărute în rețeaua principală de alimentare a metroului București (sub pământ) cauza și acțiunile, la fel și măsurile luate pentru limitarea distorsiunilor produse. Toate acestea sunt reflectate în măsurătorile făcute utilizând osciloscopul Fluke instalat la punctul de dispecer, urmând a fi procesate.*

Abstract. *In the present study it is exposed the problem of disturbances in the main power supply of Bucharest Subway (underground) system, the cause and their action, as well as the measures taken to limit the disturbances produced. All this is reflected in the measurements made using oscilloscope Fluke installed at the dispatch point, following to be then processed.*

Keywords: power supply system, electromagnetic compatibility, disturbance, influence, disruptive voltages

1. Calculations and recommendations

1.1. Calculation of verifying compliance with limits

Verifying compliance with limits is done by Subway Co. for the following cases

Table 3. Compliance with limits

Nr.	Network and operation	Sizes that are calculated	
		Dangerous influences	**Perturbing influences**
1	Networks connected to the ground: a) normal regime - 220...250 kV -1...220 kV b) monophase grounding regime	I_C E, U_r	e_p, U_c e_p
2	Network isolated from the ground: a) simple monophase grounding b) double grounding -if 1>1,2 A/kV or t>10 min -if 1<1,2 A/kV and t<10 min	I_C E	e_p, U_c
3	Network of electric traction a) normal regime b) short-circuit regime	I_C, E, U_r E, U_r	e_p, U_c

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