**ORDER**

**No. A 584**

**Sofia, 30.09.2020**

**INSPECTION BODY OF TYPE C**

**at “ETRA-EL” Ltd., Sofia**

**Management and office address:** 5000, Veliko Tarnovo 3, Magistralna Str.

**To perform inspection of:**

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| **Scope type:** *Flexible\** |
| **№** | **Field of Inspection** | **Type** **of Inspection** | **Parameter of Inspection / Characteristic** | **Test and Measurement Methods Used During Inspection** | **Regulations, Standards, Specifications, Schemes** |
| 1 | 2 | 3 | 4 | 5 | 6 |
|  1. | Electrical facilities and equipment up to and above 1000 V | New and operational sites and facilities | Insulation resistance | Norms for testing electrical machines and equipment (NIEMS)-1995 ПК-1 | Ordinance No. 16-116, (SG iss. 26/2008);Ordinance No. 3, (SG iss. 90, 91/2004);TS |
| Resistance of lightning protection grounding systems | ПК-2 | Ordinance No. 16-116, (SG iss. 26/2008);Ordinance No. 3, (SG iss. 90, 91/2004);TS |
| Impulse resistance of lightning protection grounding systems | ПК-2 | Ordinance No. 4, (SG iss. 6/2011);TS |
|  2. | Electrical facilities and equipment above 1000 V- Cable lines of up to 20kV | New and/or operational sites/ facilities | Elevated DC voltage test | NIEMS- 1995 ПК-5 | Ordinance No. 16-116, (SG iss. 26/2008);Ordinance No. 3, (SG iss. 90, 91/2004);NIEMS-1995 CPTS |
|  3. | Electrical facilities and equipment above 1000 V- Power transformers of up to 35 kV | New and/or operational sites and facilities | Insulation resistance  | NIEMS-1995 ПК-6 | NIEMS-1995Ordinance No. 16-116, SG iss. 26/2008; |
| Resistance of the coils | БДС 15320 ПК-6 | Ordinance No. 3, (SG iss. 90, 91/2004)Ordinance No. 16-116, (SG iss. 26/2008);TS |
|  |  |  | Transformation factor | БДС 15320 ПК-6 | Ordinance No. 3, (SG iss. 90, 91/2004),Ordinance No. 16-116, (SG iss. 26/2008);TS |
|  4. | Electrical facilities and equipment up above 1000 V-Current measuring transformers up to 35 kV | New and/or operational sites/ facilities  | Insulation resistance | NIEMS-1995 ПК-6 | Ordinance No. 3, (SG iss. 90, 91/2004);NIEMS-1995TS |
| Resistance of the coils | БДС 15320  | Ordinance No. 3, (SG iss. 90, 91/2004),NIEMS-1995TS |
| Transformation factor  | БДС 15320 ПК-6 | NIEMS-1995 TS |
| Volt-ampere characteristic | NIEMS-1995 ПК-6 | Ordinance No. 3, (SG iss. 90, 91/2004),TS |
|  5. | Electrical devices and equipment over 1000 V- Voltage measuring transformers up to 35kV  | New and/or operational sites/ facilities | Insulation resistance  | NIEMS-1995 ПК-6 | Ordinance No. 3, (SG iss. 90, 91/2004);NIEMS-1995TS |
| Resistance of the coils | БДС 15320 ПК-6 | Ordinance No. 3, (SG iss. 90, 91/2004);NIEMS-1995TS |
| Transformation factor | БДС 15320 ПК-6 | NIEMS-1995TS |
|  6. | Electrical installations and equipment of up to 1000V | New and/or operational sites/facilities | Impedance of the loop “phase-protective conductor” | ПК-3 | Ordinance No. 16-116, (SG iss. 26/2008);Ordinance No. 3, (SG iss. 90, 91/2004),TS |
| Circuit breakers:Contact voltage;Shutdown time | ПК-4 | Ordinance No. 16-116, (SG iss. 26/2008);Ordinance No. 3, (SG iss. 90, 91/2004),TS |
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|  7.  | Electrical installations and equipment of up to 400kV | New and/or operational sites/facilities | Transient resistance of a contact system | NIEMS-1995 ПК-7 | NIEMS-1995TS |
| Transient resistance of connections | NIEMS-1995 ПК-7 | Ordinance No. 16-116, (SG iss. 26/2008);Ordinance No. 3, (SG iss. 90, 91/2004),TS |
|  8. | Artificial lighting in working and domestic environments | New and/or operational sites/ facilities | Illuminance | Methodological guidelines for the measurement and assessment of artificial lighting in buildings 40-85, Standardizatsia Publishing House, 1985.ПК-8 version 1 of 11.09.2019 | Ordinance No.49, SG iss. 7/1976Ordinance No. 9,SG iss. 46/1994;Ordinance No. 24, SG iss. 95/2003;Ordinance No. 2,SG iss. 15/2007;Ordinance No. 3,SG iss. 15/2007Ordinance No. 26, SG iss. 103/2008 Bulgarian State Standard EN 12464-1 TS  |
|  9. | Microclimate in working and living environments | New and/or operational sites/ facilities | Air temperature,Air velocity,Relative air humidity | Ordinance No. RD-07-3, SG iss. 63/2014 БДС 16686 ПК-9 | Ordinance No. 9,SG iss. 46/1994;Ordinance No. 24, SG iss. 95/2003;Ordinance No. 2,SG iss. 15/2007;Ordinance No. 3,SG iss. 15/2007Ordinance No. 26,SG iss. 103/2008Ordinance No. RD-07-3, SG iss. 63/2014 БДС 14776TS |

\* *Introduction of а new version of standards/documents or standards/documents replacing them is allowed. An up-to-date list of standards/documents with their dated versions shall be provided by the CAB.*

Ordinance No. 16-116 on the technical operation of energy equipment (SG iss. 26/2008)

Ordinance No. 3 on the structure of electrical installations and current-carrying lines (SG iss. 90 and 91/2004)

Ordinance No. 4 on the lightning protection of buildings, outdoor facilities and open spaces (SG iss. 6/2011)

NIEMS-1995. Measurement standards for elecrtrical machines and equipment

Ordinance No. RD-07-3 on the minimum requirements for the microclimate of workplaces (SG iss. 63/10.08.2014)

Ordinance No. 3 on the health requirements for kindergartens (SG No. 15/2007)

Ordinance No. 2 on health requirements for computer and internet rooms for public use (SG iss. 15/2007)

Ordinance No. 24 on sanitary and hygienic requirements for discotheques (SG No. 95/2003);

Ordinance No. 9 on the health and hygiene requirements for the use of personal computers in the education and extracurricular activities of pupils (SG iss. 46/1994)

Ordinance No. 49 on artificial lighting of buildings (SG iss. 7/1976)

Ordinance No. 26 on the structure and operation of nurseries and children's kitchens and the health requirements for them (SG iss. 103/2008)

Methodological guidelines for measurement and assessment of artificial lighting in buildings 40-85, ed. Standardizatsia Publishing House, 1985

TS-Technical Specification.