



Republic of Bulgaria
Executive Agency
Bulgarian Accreditation Service



Signatory to the EA Multilateral Agreement in this field

BAS QF 2.11

ORDER

№ A 427

Sofia, 08.07.2022

On the basis of Art.10, para.1, item 2a, and 32, para. 2 of the Law on National Accreditation of Conformity Assessment Bodies and item 5.3.1. in relation to a change of an element of the content of the certificate according to clause 4.3.8. /letter c/ of the BAS QR 2 Accreditation Procedure in connection with report reg. № 27/294 OKC/14/B/20.05.2022 and EA BAS order reg. № A 426/08.07.2022,

AMEND

EA BAS order reg.№ A 99/09.02.2022

INSPECTION BODY OF TYRE C „ES and RZA“
at „ELECTRORAZPREDELITELNI MREJI ZAPAD“ AD, SOFIA

Management address: 1784 Sofia, 159 Tsarigradsko Shosse Blvd.
Office address: 1303 Sofia, 1 Ohridsko ezero Str

To perform inspection of:

Scope type: Flexible *					
№	Field of Inspection	Type of Inspection	Parameter of Inspection Characteristic	Test Methods and Measurement Procedures Used	Regulations, Standards, Specifications, Schemes
1	2	3	4	5	6
1		ELECTRICAL INSTALLATIONS AND EQUIPMENT OVER 1000 V			
1.1.	Commutation equipment	New and operating sites and facilities	I. CIRCUIT BREAKER:: 1. Insulation resistance	БДC EN 62271-100/A1 NIEMS ПК No. 7 09	Ordinance No 3 (SG, No 72/2004) Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
			2. Transient contact surfaces resistance	БДC EN 62271-100/A1 NIEMS ПК No. 7 09	Ordinance No 3 (SG, No 72/2004) NIEMS TS
			II. DISCONNECTOR: 1. Insulation resistance	NIEMS ПК No. 7 09	Ordinance No 3 (SG, No 72/2004) Ordinance No 16-116 (SG, No 26/2008) NIEMS TS

			2. Transient contact surfaces resistance	NIEMS ПК No. 7 09	Ordinance No 3 (SG, No 72/2004) NIEMS TS
			III. TERMINALS AND FEED-THROUGH INSULATORS:		
			1. Insulation resistance	Bulgarian State Standard БДС 7684 NIEMS ПК No. 7 09	Ordinance No 3 (SG, No 72/2004) Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
			IV. CHAIN AND SUPPORT INSULATORS:		
			2. Insulation resistance	Bulgarian State Standard БДС 3637 ПК N°-7 09	Ordinance No 3 (SG, No 72/2004) NIEMS TS
			V. ELEMENTS AND SECONDARY CIRCUITS OF COMPLETE SWITCHGEARS:		
			1. Insulation resistance	БДС 15089 NIEMS ПК N-7 09	БДС 10699 Ordinance No 3 (SG, No 72/2004) Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
			2. Transient contact surfaces resistance	БДС 15089 NIEMS ПК N-7 09	Ordinance No 3 (SG, No 72/2004) Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
1.2	CABLE LINES UP TO 35 kV	New and operating sites and facilities	1. Insulation resistance	БДС 1986 ПК No. 7 12	Ordinance No 3 (SG, No 72/2004) Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
			2. Increased voltage of cable lines	БДС 2581 БДС 2406 NIEMS ПК No. 7 12	БДС 2581 Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			3. Increased voltage with ultra-low frequency 0,1Hz (VLF)	БДС EN 60060-3 ПК No 7 12	IEEE 400.2: 2013 TS
			4. Resistance and integrity of conductive cores	БДС 2374 NIEMS ПК No. 7 12	NIEMS TS
1.3	POWER TRANSFORMERS	New and operating sites and facilities	1. Insulation resistance of windings	БДС 16654 ПК No. 7-04	Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
			2. Absorption index R_{60}/R_{15}	БДС 16654 ПК No. 7-04	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS

			3. Electric current and idle time losses:		
			a. For transformers from 25 кVA to 1600 кVA	БДС 15320 ПК N7 04	БДС 5034 БДС 5060 Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			b. For transformers from 2500 кVA to 63000 кVA	БДС 15320 ПК N°-7 04	БДС 5060 NIEMS TS
			4. Short-circuit losses		
			a. For transformers from 25 кVA to 1600 кVA	БДС 15320 ПК No.7 04	БДС 5034 БДС 5060 Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			b. For transformers from 2500 кVA to 63000 кVA	БДС 15320 ПК N°-7 04	БДС 5060 БДС 16654 Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			5. Winding connection group	БДС 15320 ПК N°-7 04	Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
			6. Transformation coefficient	БДС 15320 NIEMS ПК N°-7 04	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			7. Windings resistance	БДС 15320 NIEMS ПК N°-7 04	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			8. Transformer oil breakdown voltage	БДС EN 60 156 ПК No 7 04	БДС EN 60296 Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
1.4	CURRENT MEASUREMENT TRANSFORMERS	New and operating sites and facilities	1. DRY to 20 kV		
			1. Insulation resistance	БДС 10370 NIEMS ПК 7 05	Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
			2. Windings resistance	БДС 15320 NIEMS ПК 7 05	Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			3. Volt-Ampere characteristic	БДС 10370 NIEMS ПК 7 05	Ordinance No 3 (SG, No 90 and 91/2004)

					NIEMS TS
			4.Increased voltage with frequency 50 Hz	БДC 10370 NIEMS ПК No 7 05	NIEMS TS
			5.Tranformation coefficient	NIEMS ПК No 7 05	Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			6. Marking of terminals	NIEMS ПК No 7 05	Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
			II. OIL-FILLED 110 kV		
			1. Insulation resistance	NIEMS ПК No 7 05	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			2. Windings resistance	БДC 15320 NIEMS ПК No 7 05	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			3. Volt-Ampere characteristic	NIEMS ПК No 7 05	Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			4.Increased voltage with frequency 50 Hz	NIEMS ПК No 7 05	NIEMS TS
			5.Tranformation coefficient	БДC 15320 NIEMS ПК No 7 05	NIEMS TS
			6. Marking of terminals	NIEMS ПК No 7 05	NIEMS TS
			7. Insulation oil breakdown voltage	БДC EN 60156 ПК 7 05	БДC EN 60296 Ordinance No 16-116 (SG, No 26/2008) NIEMS TS
1.5	VOLTAGE MEASUREMENT TRANSFORMER	New and operating sites and facilities	I. DRY UP TO 20 kV		
			1. Insulation resistance	ПК 7 05 NIEMS	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			2. Windings resistance	БДC 15320 ПК 7 05	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS TS

			3. Volt-Ampere characteristic	ПК 7 05 NIEMS	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			4. Increased voltage with frequency 50 Hz	ПК 7 05 NIEMS	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			5. Transformation coefficient	БДС 15320 NIEMS ПК 7 05	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			II. OIL-FILLED 110 kV:		
			1. Insulation resistance	ПК 7 05 NIEMS	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			2. Windings resistance	ПК 7 05 NIEMS	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			3. Volt-Ampere characteristic	ПК 7 05 NIEMS	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			4. Increased voltage with frequency 50 Hz	ПК 7 05 NIEMS	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			5. Transformation coefficient	ПК 7 05 NIEMS	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			6. Marking of terminals	ПК 7 05 NIEMS	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
			7. Insulation oil breakdown voltage	ПК 7 05 NIEMS	БДС IEC 60296 Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004)

					NIEMS TS
2		Electrical installations and equipment up to 1000 V:			
2.1	Relay protections, electric automation and telemechanics	New and operating sites and facilities	1. Insulation resistance of: a. Relays and relay protections	БДС 7862 ПК No 7 06	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004 Customer's TS
			2. Voltage and inrush current of relay protections	БДС 7862 ПК No 7 06	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004) NIEMS TS
2.2	EARTHING AND THUNDER- PROTECTION INSTALLATION	New and operating sites and facilities	1. Resistance of earthing installations	ПК No 7 08	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004 TS
			2. Resistance of thunder-protection installations	ПК No 7 08	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004 TS
			3. Transient resistance of connections of the ground connections and earthed facilities	ПК No 7 08	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004 TS
2.3	Phase - protective conductor loop	New and operating sites and facilities	Impedance of phase - protective conductor loop	ПК No 7 07	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004 TS
2.4.	Circuit breakers for safety trip	New and operating sites and facilities	2. Tripping time	ПК No 7 07	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004 TS
			3. Contact voltage	ПК No 7 07	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004 TS
			3. Inrush current	ПК No 7 07	Ordinance No 16-116 (SG, No 26/2008) Ordinance No 3 (SG, No 90 and 91/2004 TS
3.		ELECTRIC PROTECTION EQUIPMEN:			
3.1	INSULATING RODS; VOLTAGE INDICATORS OVER 1000 V	Operating facilities	Electrical insulation strength through increased voltage	Ordinance No. 22 ПК No 7 11	Ordinance No. 22 (SG No. 45/2006) TS
3.2	Dielectric gloves, boots, high boots and rubber boots (galoshes)	Operating facilities	Electrical insulation strength through leakage current	Ordinance No. 22 ПК No 7 11	Ordinance No. 22 (SG No. 45/2006)

4		POWER QUALITY CONTROL:			
4.1	Power quality control	New and operating sites and facilities	1. Voltage frequency	БДС EN 50160 ПК No 7 10	БДС EN 50160
			2. Voltage deviation	БДС EN 50160 ПК No 7 10	БДС EN 50160
			3. Rapid Voltage Changes	БДС EN 50160 ПК No 7 10	БДС EN 50160
			4. Voltage asymmetry	БДС EN 50160 ПК No 7 10	БДС EN 50160
			5. non-sinusoidal voltage	БДС EN 50160 ПК No 7 10	БДС EN 50160

***Flexible scope:** Implementing a new version of standards/documents or standards/documents replacing them is allowed. An updated list of standards/documents and their dated versions is provided by CAB.

References:

Ordinance № 3 (SG, № 90 and № 91/2004) - on the design of electrical installations and power lines

Ordinance № 16-166 (SG, issue 26/2008) - on the technical operation of energy equipment

Ordinance № 4 (SG, issue 6/2011) - on lightning protection of buildings, external facilities and open spaces in the use of personal computers in the education of students (SG, issue 46/1994)

Ordinance № 22 for testing of electrical protective equipment in operation (prom.SG, issue 45/2006 of 02.06.2006)

I ORDER

To issue a Certificate of accreditation with reg. №294 OKC/08.07.2022 valid until 09.02.2026 and this order as an integral part of it.

The Certificate of accreditation with the enclosure should be obtained from the manager/ representative of the „Electrorazpredelitelni mreji Zapad“ AD, SOFIA, head of the CAB, or other authorized person in the office of EA BAS.

Upon receipt of the certificate issued and enclosure, the accredited CAB is obliged to return to EA BAS the originals of the certificate of accreditation with reg. №294 OKC/09.02.2022, and its enclosure EA BAS order reg.№ A 99/09.02.2022 as an integral part of it.

This order shall be notified to the legal entity „Electrorazpredelitelni mreji Zapad“ AD within 3 (three) days from its issuance.

Eng. Irena Borislavova

Executive Director of EA BAS

