



Registrar

# National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/DG(M&E)/LAD-03/ 16424

October 28, 2024

Chief Executive Officer,  
Gujranwala Electric Power Company Limited (GEPCO),  
565/A, Model Town, G.T Road,  
Gujranwala

SUBJECT: **Order of the Authority in the matter of Show Cause Notice issued to GEPCO on account of Fatal Accidents occurred during FY 2022-23**

Please find enclosed herewith, the Order of the Authority (total 19 pages) in the subject matter for information and compliance.

Enclosure: **As above**

  
(Wasim Anwar Bhinder)



# National Electric Power Regulatory Authority

## ORDER

### IN THE MATTER OF SHOW CAUSE NOTICE ISSUED TO GEPCO ON ACCOUNT OF FATAL ACCIDENTS OCCURRED DURING FY 2022-23

1. Gujranwala Electric Power Company Limited (GEPCO) (the "Licensee") was granted a Distribution License (No. DL/04/2023 dated 09.05.2023) by the National Electric Power Regulatory Authority (the "Authority") for providing Distribution Services in its Service Territory as stipulated in its Distribution License, pursuant to section 21 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 ("NEPRA Act").

#### Background:

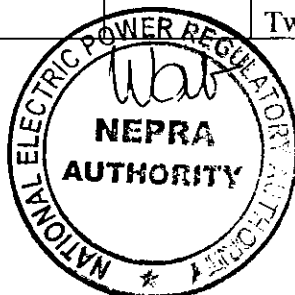
2. As per Rule 7 of NEPRA Performance Standards (Distribution) Rules, 2005 (PSDR-2005), all Distribution Companies (DISCOs) are bound to submit an Annual Performance Report to the Authority every year. Further, Form 9 of PSDR 2005 states that DISCOs shall report each and every individual incident on an immediate basis. Accordingly, the DISCOs submitted the data/information to NEPRA regarding electrical incidents resulting in death/permanent disability/serious injury to members of staff or the general public that occurred in FY 2022-23.
3. During the review of data submitted by the Licensee for FY 2022-23, it was revealed that a total number of eight (08) fatal accidents including nine (09) fatalities (03 Employees and 06 Public Persons) occurred within the service territory of the Licensee. This figure illustrates a concerning picture regarding efforts taken by the Licensee to inculcate a safety culture in its service territory.

#### Summary of Inquiry Reports:

4. It is relevant to mention that the NEPRA Regional Office, Gujranwala, carried out the inquiries through evaluation of all relevant records including the internal inquiry reports submitted by licensee against the aforementioned nine (09) fatalities that occurred during FY 2022-23. The summary of the same is as under:

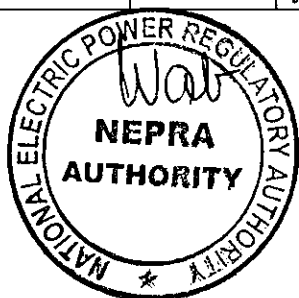
Sr. No.	Name of Victim(s)	Date of Incident	Category	Incident Description	Responsibility/ Reasons
1	i. Mr. Danish ii. Mr. Bilal	06.07.2022	Public	On day of the accident, three boys were passing through a street flooded with rainwater on the motorbike and when they reached the incident site i.e. 11kV Steel Structure, they received electric shock and fell down on the ground. Two of them died on the spot,	GEPCO <ul style="list-style-type: none"><li>• Lack of Earthing</li><li>• Leakage of Current</li></ul>

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				however, the third one was rescued by the nearby people and survived.	
2	Mr. Chand Muhammad	12.09.2022	Public	The victim got electrocuted and died while coming in contact with a hanging HT Conductor.	<p>GEPCO</p> <ul style="list-style-type: none"> <li>• Deteriorated Distribution System</li> <li>• Design fault</li> </ul>
3	Ms. Shagufta Bibi	12.09.2022	Public	The victim got electrocuted and died on the spot while coming in contact with an 11 kV line (having less clearance) at the rooftop of her house while placing the wet clothes on the wall for drying purposes. The vertical clearance of the line was not as per SOP i.e. 5 feet.	<p>GEPCO</p> <ul style="list-style-type: none"> <li>• Less Clearance of HT Lines</li> </ul>
4	Mr. Sana Ullah	19.09.2022	Public	The victim got electrocuted while coming in contact with an 11 kV TM Khan feeder having less ground clearance i.e. 6 feet.	<p>GEPCO</p> <ul style="list-style-type: none"> <li>• Less Clearance of HT Lines</li> </ul>
5	Mr. Imtiaz Ahmed (LM-T&G)	15.10.2022	Employee	Upon the complaint of a farmer, the victim climbed up the HT Steel Structure to spare the Structure from an obsolete conductor. When he cut the last wire, the HT Steel Structure fell down along with the victim. Due to wearing safety belt, he remained entangled with the falling structure and stuck with an angle iron of the structure. He was shifted to the hospital, however, he succumbed to his injuries on 22.10.2023	<p>GEPCO</p> <ul style="list-style-type: none"> <li>• Lack of Safety Measures/Culture</li> </ul>
6	Mr. Asif Nawaz (LM-II)	21.10.2022	Employee	The victim got electrocuted while setting the LT Jumper of the transformer without obtaining PTW. During the work, he climbed up the transformer platform while holding conductor stands, which erroneously got touched with HT live droppers which caused his electrocution. He was shifted to the hospital, however, he	<p>GEPCO</p> <ul style="list-style-type: none"> <li>• Lack of Safety Measures/Culture</li> </ul>

h. / 2



				was scammed by his injuries and died on 26.10.2023.	
7	Mr. Yasin	26.03.2023	Public	The victim died while coming in contact with the spillage of transformer oil which occurred as a result of the transformer blast due to its internal fault.	GEPCO <ul style="list-style-type: none"> <li>Deteriorated Distribution System</li> <li>Design Fault</li> </ul>
8	Mr. Muhammad Ali (ALM)	07.05.2023	Employee	The victim got electrocuted while reconnecting the 11 kV jumpers without obtaining PTW.	GEPCO <ul style="list-style-type: none"> <li>Lack of Safety Measures/Culture</li> </ul>

Based on the aforementioned summary, the following was the final outcome:

Description	Number of Fatalities	Responsibility	
		GEPCO	Others
Employees	03	03	00
Public	06	06	00
<b>Total</b>	<b>09</b>	<b>09</b>	<b>00</b>

5. Moreover, according to Rule 4(g) of PSDR-2005, the Licensee should establish and enforce appropriate rules, regulations, and operational procedures as outlined in its Distribution Code or relevant documents to ensure the safety of both its employees and the general public, however, it has failed to do so.

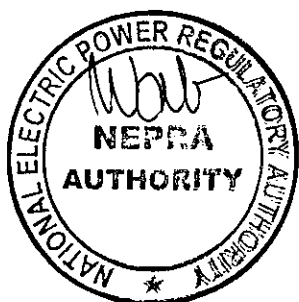
**Show Cause Notice:**

6. The Authority took notice of the aforementioned fatal accidents and decided to initiate legal proceedings against the Licensee under NEPRA Fine Regulations, 2021. Accordingly, NEPRA vide its letter dated August 30, 2023, served a Show Cause Notice (SCN) to the Licensee on account of eight (08) fatal accidents including nine (09) fatalities (03 Employees and 06 Public Persons) that occurred during FY 2022-23 for violating Performance Standards, Distribution Code, Power Safety Code, and other applicable documents. The salient points of the said SCN are as follows

3. ***"WHEREAS, pursuant to section 21(2)(f) of the NEPRA Act, the Licensee is required to follow the performance standards laid down by the Authority for the distribution and transmission of electric power, including safety; and***

4. ***WHEREAS, pursuant to Rule 4(g), of Performance Standards (Distribution) Rules, 2005, and clause SR 4 of Distribution Code, 2005:***

- All distribution facilities of a distribution company shall be constructed, operated, controlled and maintained in a manner consistent with the Distribution Code, Power Safety Code, Consumer Service Manual, and other applicable documents.*
- A distribution company shall ensure that its distribution facilities do not cause any leakage of electrical current or step potential beyond a level that can cause harm to human life, as laid down in the relevant*



IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which results in voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company.

- iii. A distribution company shall implement suitable, necessary, and appropriate rules, regulations and working practices, as outlined in its Distribution Code or applicable documents, to ensure the safety of its staff and members of the public. This shall also include suitable training for familiarity and understanding of the rules, regulations, practices, and training to use any special equipment that may be required for such purposes including without limitation basic first aid training.

5. **WHEREAS**, pursuant to Clauses PSC-1, PSC-2, & PSC-6.3 of Power Safety Code:

**PSC-1 Purpose:**

The purpose of this safety code is to ensure that the licensee's networks are planned, developed, operated, and maintained in an efficient & safe way without compromising on safety of any kind related to the systems, personnel & others.

**PSC-2 General Instructions of Power Safety:**

The licensee shall abide by the safety requirements as set out in Power Safety Code, Distribution Code, Power Safety Manual, Performance Standards (Distribution) Rules 2005, Grid Code & other applicable documents.

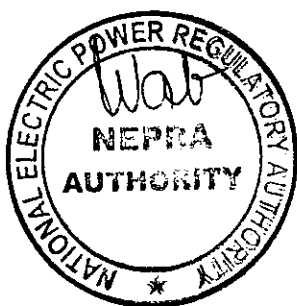
The licensee shall promote a healthy & safe culture and provide all employees, contractors, and the people concerned and the public with a safe & healthy place to work. The Licensee shall ensure that safe working is integrated into every aspect and area of business. Moreover, safety culture shall be based on personal leadership, collaboration, and involvement.

The licensee shall adhere to the highest standards in all work practices so as to ensure protection of employees and any other affected by what licensee do. Each licensee shall ensure in day-to-day work that facilities/support programmers are provided to safeguard the health, welfare & well-being of their staff.

**PSC-6.3 General Provisions of Safety:**

The general provisions of safety shall be provided by each licensee covering the following:-

- The provisions for workers/operators to object to doing work on safety grounds



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- The use & wearing of safety equipment & protective clothing
- Physical fitness & personal conduct of the worker before and during on job
- Arrangement and procedure of job briefing before the work is started
- Requirements to safe guard the public and property when work in progress
- Requirements for housekeeping in a safe working conditions
- Arrangements and requirements of fire protection
- Requirements, arrangements and use of proper tools and plants for the proper and safe storage lifting and carrying of different types of material
- Procedure and reporting requirements of patrolling of lines
- Procedure for tree trimming
- List of common protective devices and equipment used for the safety purposes.

6. **WHEREAS**, according to Performance Standards (Distribution) Rules, 2005, the Licensee is obligated to submit the details of fatal accidents for employees as well as the general public that occurred in its service territory. Accordingly, in FY 2022-23, the Licensee has reported a total number of of nine (09) fatalities (3 Employees & 6 Public Persons); and

7. **WHEREAS**, the Authority has taken serious notice of such casualties and is of the view that the Licensee has failed to operate and maintain its distribution facilities in a safe and reliable manner. Hence, it can be said that the Licensee has, prima facie, violated Section 21(2)(f) of the NEPRA Act, Article 11 of the Distribution License read with Rule 4(g) of the NEPRA Performance Standards (Distribution) Rules, Clause 4 of Safety Requirements, Clauses PSC-1, PSC-2, & PSC-6.3 of Power Safety Code and other applicable documents; and..."

7. The Licensee vide its letter dated September 13, 2023 submitted its response , against the SCN served. The summarized points of the Licensee's response are narrated below:

**A. REPLY TO SHOW CAUSE NOTICE:**

1. At the very outset, it is humbly submitted that GEPCO has always followed/implemented Performance Standards as laid down in PSDR-2005. Further GEPCO's Distribution and Transmission System is in accordance with the Standard Design and there is no chance of leakage/step potential problem, which may be hazardous to life and property, and is safe in all respects.
2. GEPCO has established Training and Development Centre where the line staff personnel are imparted with high quality training for capacity building and enhancement of their technical skills. All field staff, Sub Divisional Officers, Line Superintendents, Linemen and Assistant Linemen are also being imparted Quick Impact Safety Training.
3. It merits to mention that GEPCO was the first Distribution Company where HSE Directorate was established and HSE Management System is being developed and implemented in true spirit. In this regard, time to time instructions, as received from NEPRA are being implemented. The prima facie evidence is preparation/modification of GEPCO HSE Manual in line



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with the NEPRA Power Safety Code for Licensees and its approval from the NEPRA Authority, particularly stating therein conduction of Behavior Assessment Safety Walks to have check on the daily activities of line staff to inculcate safety culture among them.

4. GEPCO has made all out efforts to provide latest and recommended PPE/ T&P items especially the Class-2 latest Rubber Insulating Sleeves, Full Body Harness. Insulated Bucket Mounted Vehicles, Truck Mounted Cranes and Fork Lifters for its line staff.

B. ...

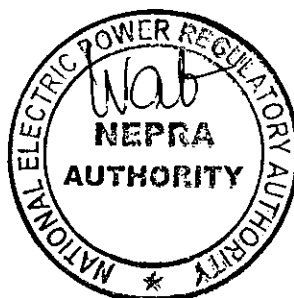
**C. SAFETY ARRANGEMENTS/IMPROVEMENTS:**

1. A daily Alert / Safety Awareness Message is being forwarded in Safety WhatsApp Groups maintained at all GEPCO Division levels. The line staff of relevant GEPCO Division is member of said WhatsApp Group.
2. GEPCO has also approached the Education Department to spread steady awareness in students and general public to help them understand about the hazards of electricity and to build attitude/culture of prevention from these hazards. Publishing of easy to understand instructions (in Urdu language) for general public to stay safe from electric hazards is an integral part of GEPCO publications, these instruction are illustrated in shape of large size Panaflexes / Posters, at the entrance points of GEPCO field offices and in Complaint Centers.
3. In compliance of NEPRA instructions GEPCO has begun installing Permanent Earthings with Transformer Sub Stations, due to acute shortage of staff and to complete the task within stipulated time, GEPCO has outsourced the work.
4. In order to ensure the safety of our valued consumers GEPCO has removed 2,093 Nos. Safety Hazards amounting to Rs.231.43 Million during previous two years as detailed below.

<b>Safety Hazard Removed During Last Two Years</b>						
<b>Description</b>	<b>FY 2021-22</b>		<b>FY 2022-23</b>		<b>Grand Total</b>	
	<b>Nos.</b>	<b>Million Rs.</b>	<b>Nos.</b>	<b>Million Rs.</b>	<b>Nos.</b>	<b>Million Rs.</b>
<i>Line Staff Hazards</i>	775	30.35	68	4.89	843	35.24
<i>Public Hazards</i>	698	73.12	552	123.07	1250	196.19
<b>Total</b>	<b>1473</b>	<b>103.47</b>	<b>620</b>	<b>127.96</b>	<b>2093</b>	<b>231.43</b>

5. Keeping in view the importance of public awareness well versed comprehensive Caution Notice is being sent to all consumers through

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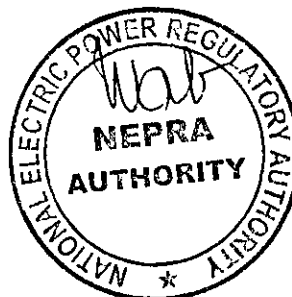
*monthly energy bill stating therein to avoid construction under and stay away from GEPCO Distribution & Transmission system.*

- 6. Moreover, posters/pamphlets containing very important safety instructions have been got printed & distributed to all field formations of GEPCO to create safety culture amongst the line staff. Daily SMS are being issued to the line staff as well as for public awareness, regarding safety measures to be adopted.*
- 7. It is also added that HSE Directorate GEPCO has contributed actively in preparation of new PTW format and GEPCO attained second position among all DISCOs in Annual HSE Performance Evaluation conducted by NEPRA for the year 2021-22 and secure 74/100 marks.*
- 8. It may be observed that GEPCO caters for massive arrangements of consumers over 4.2 Millions, spreading 6 districts of Gujranwala Division. The company has continuously and tirelessly involved in improvement and modernization of the system, with government support despite being severely short of staff strength."*

**Hearing:**

8. The Authority considered the response of the Licensee and decided to provide an opportunity of hearing to the Licensee under NEPRA (Fine) Regulations, 2021, before further proceeding in the matter. Accordingly, the hearing in the matter was scheduled on May 13, 2024, wherein, the licensee along with its team made the following submissions:
  1. It is a matter of fact that a total of six (09) fatalities (three employees and six public persons) occurred in FY 2022-23, however GEPCO is trying to take all possible measures to avoid fatal accidents.
  2. GEPCO has launched a comprehensive campaign regarding safety awareness through education department, electronic and print media, a large sized panaflexes/posters and complaint centres etc.
  3. As far as the accidents of employees are concerned, those were occurred due to their own carelessness and violation of safety SOPs by themselves. In this regard, enquiries have been conducted and actions in form of stoppage of increment and demotion against all the responsible officers/officials including XEN and SDO have been taken.
  4. It is also an admitted fact that the action taken against the responsible persons are not sufficient as compared to the sensitivity of issue. However, it is also proved in enquiry reports that most of the time employees were electrocuted due to their own mistakes/negligence.
  5. One of the public person died while there was heavy rain and major part of the structure/pole dipped in flooded rain water. The victim could not identify the

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hazardous pole and touched the same and electrocuted. Although it was an accidental death, but even then, GEPCO has paid compensation of Rs.7.5 lakh to the bereaved family.

6. Another public fatality was occurred due to touching of victim with the broken conductor which was fallen on ground. Unfortunately, the 11 KV feeder was not tripped on account of line to ground fault and victim received severe electric shock and died. Keeping in view such situation, GEPCO has started to replace all the electromechanical relays with digital ones in order to avoid such accidents in future.

#### **FINDINGS AND CONCLUSIONS:**

9. NEPRA Act and distribution license issued to all distribution companies impose a statutory obligation on the distribution licensees to follow safety standards laid down by the Authority. In this regard, reference is made to Section 21 of the NEPRA Act and Article 11 of the distribution license of licensee:

##### **Section 21(2) (f) NEPRA Act**

*The Licensee shall follow the performance standards laid down by the Authority for distribution and transmission of electric power, including safety, health, and environmental protection instructions issued by the Authority or any Governmental agency;*

##### **Article 11 Distribution License - Compliance with Performance Standards**

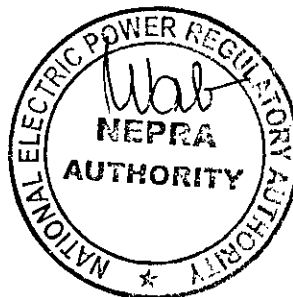
*Compliance with Performance Standards – The Licensee shall conform to the relevant Performance Standards as may be prescribed by the Authority from time to time.*

The Licensee is required to follow the design parameters of the distribution network and take all possible measures as laid down in the NEPRA Performance Standards Distribution Rules, Distribution Code, and Consumer Service Manual to ensure that there is no leakage of current from its distribution facilities to avoid any danger or harm to human life and property. Based on the details of individual cases briefed at length in the preceding paragraphs, major findings of the M&E department are as follows:

#### **I. LACK OF EARTHING/LEAKAGE OF CURRENT:**

During the review of inquiry reports, it was observed that the fatalities of two victims namely Mr. Danish and Mr. Bilal occurred when they came in contact with short circuited HT steel structure which contained a leakage current. The earthing of the structure was deteriorated and was not proper. If the earthing of the structure was proper there would have been a chance to save two precious human lives.

It is a statutory obligation of Licensee to ensure that its distribution facilities do not cause any leakage of electrical current. Apparently, Licensee is not following the principles and parameters set for prudent utility practices for the design of distribution networks as laid down in the NEPRA Performance Standards (Distribution) Rules, Distribution Code, and Consumer Service Manual. In this regard, reference is made to provisions of relevant NEPRA laws:



## **NEPRA Performance Standards (Distribution) Rules**

### **Rule 4(g), Overall Standards 7-Safety**

- (i) .....
- (ii) A distribution company shall ensure that its distribution facilities do not cause any leakage of electrical current or step potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which results in voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company.
- (iii) .....

### **Distribution Code**

#### **DDC 4, Design Code- Earthing**

*.....The earthing of a distribution transformer, the neutral and body of the transformer should be connected to ground rods as per IEC and PSI Standards Design Specifications. Earthing of Consumer Service and its meter shall be as per design standards adopted by the Licensees; and consistent with IEC, and IEEE Standards. The earth resistance of the distribution transformers and HT/LT structures/poles shall not be more than 2.5Ω and 5Ω respectively.*

#### **SR 4, Safety Management Criteria**

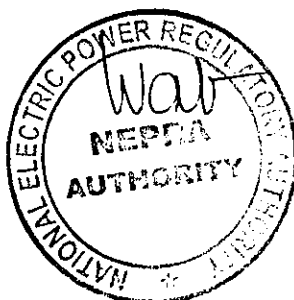
- a. ....
- b. *A distribution company shall ensure that its distribution facilities do not cause any leakage of Electrical Current or Step Potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which results in voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company.*
- c. ....

#### **PR 1 Protection System Practices and System Co-ordination**

*The Licensee shall follow suitable and necessary provisions regarding protection system practices and co-ordination such as the following but not limited to achieve the aims of proper functioning of the distribution system of the Licensee at all times:*

- .....
- h. Provide protective earthing devices.*
- .....

*h* *2*



**Consumer Service Manual**  
**Chapter 12 Safety and Security**  
**12.2 Obligation of GEPCO**

*GEPCO shall monitor and implement the safety and security plan for consumers. The safety and security objectives can be achieved by adopting good engineering practice, including measures as described below:*

*.....*  
**12.2.4** *The earthing systems installed shall be dimensioned and regularly tested to ensure protection from shock hazards.*

**12.2.5** *The steel structure installed on the public places shall be earthed at one point through steel/copper conductor, in accordance with the GEPCO laid down procedures.*

In view of the foregoing, Licensee has failed to follow the principles and parameters set for prudent utility practices for the design of distribution network as laid down in the NEPRA Performance Standards (Distribution) Rules, Distribution Code, and Consumer Service Manual. Such conduct of the Licensee is in violation of Section 21 (2) (f) of the NEPRA Act, Article 11 of the Distribution License read with Rule 4(g) of the NEPRA Performance Standards (Distribution) Rules, Clause 4 of Safety Requirements, Clause 4 of Design Code and Clause 1 of Protection Requirements of the Distribution Code and Clause 12.2 of Chapter 12 of the Consumer Service Manual.

**II. DETERIORATED DISTRIBUTION SYSTEM / DESIGN FAULT/  
IMPROPER PROTECTION SYSTEM:**

It has been observed that there is a deteriorated HT/LT system of Licensee. In the case of Mr. Chand Muhammad, the victim came in contact with the hanged conductor and received electric shock which caused his death. It was the prime responsibility of Licensee to identify and rectify such serious safety hazards, which it failed to do so.

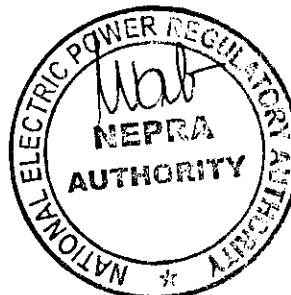
Similarly, in case of Mr. Yasin, the victim came in contact with the hot transformer oil which was spilled on the road as a result of transformer fall. The main responsibility lies upon the Licensee which installed the said transformer without spun pole platform fitting and absence of J&U bolts.

NEPRA laws and applicable documents particularly Performance Standard Distribution Rules, Distribution Code, and Consumer Service Manual require a distribution licensee to ensure that its distribution facilities do not cause any leakage current and that its protection devices are properly installed and coordinated to ensure isolation of faulty circuits. In this regard, reference is made to provisions of the relevant NEPRA laws:

**NEPRA Performance Standards (Distribution) Rules**  
**Rule 4(g), Overall Standards 7-Safety**

(iv) .....

(v) *A distribution company shall ensure that its distribution facilities do not cause any leakage of electrical current or step potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which*



*results in voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company.*

(vi) .....

### **Distribution Code**

#### **PR 1 Protection System Practices and System Co-ordination**

*The Licensee shall follow suitable and necessary provisions regarding protection system practices and co-ordination such as the following but not limited to achieve the aims of proper functioning of the distribution system of the Licensee at all times:*

- a. Protection co-ordination of distribution system, sub-transmission system and system upto the metering point of the User (wherever applicable).*
- b. Intentions to protect the Licensees lines, sub-station facility and equipment against the effects of faults.*

#### **SR 4 Safety Management Criteria**

*a. ....*

- b. A distribution company shall ensure that its distribution facilities do not cause any leakage of Electrical Current or Step Potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which results in voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company.*

### **DDC 3 DESIGN PRINCIPLES**

#### **3.1 Specification of Equipment, Overhead Lines and Underground Cables**

- a. The principles of design, manufacturing, testing and installation of Distribution Equipment, overhead lines and underground cables, including quality requirements, shall conform to applicable standards such as IEC, IEEE, Pakistan Standards or approved current practices of the Licensee.*
- b. The specifications of Equipment, overhead lines and cables shall be such as to permit the Operation of the Licensee Distribution System in the following manner;*
  - i. within the safety limits as included in the approved Safety Code of the Licensee or the relevant provisions of the Performance Standards (Distribution);*

### **Consumer Service Manual**

#### **Chapter 12 Safety and Security**

##### **12.2 Obligation of GEPCO**

*GEPCO shall monitor and implement the safety and security plan for consumers. The safety and security objectives can be achieved by adopting good engineering practice, including measures as described below:*



12.2.1 *Operation and maintenance of GEPCO distribution system /Network shall be carried out only by the GEPCO authorized and trained personnel.*

12.2.2 *GEPCO system equipment, including overhead lines, poles/structures/towers underground cables, transformers, panels, cutouts, meters, service drops, etc. shall be installed and maintained in accordance with Grid Code, Distribution Code and other relevant documents.*

In view of the foregoing, Licensee has failed to discharge its statutory obligation to maintain safety standards and ensure that its protection system operates on time to prevent leakage of current, therefore, Licensee has contravened Section 21(2)(f) of the NEPRA Act, Article 11 of the Distribution Licence read with Rule 4(g) of the NEPRA Performance Standards (Distribution) Rules, 2005, Clause 4 of the Safety Requirements of Distribution Code, Clause PR 1 of Protection System Requirements of Distribution Code, Clause DDC 3 of Design Code of Distribution Code and Chapter 12 of Consumer Service Manual.

### **III. LESS CLEARANCE OF HT LINES:**

It has been observed that in case of Ms Shagufta Bibi, the victim got electrocuted and died on the spot while coming in contact with an 11 kV line (having less clearance) at the rooftop of her house while placing the wet clothes on the wall for drying purpose. The vertical clearance of the line was not as per SOP i.e. 5 feet.

Similarly, in case of Mr. Sana Ullah, the victim got electrocuted while coming in contact with an 11 kV feeder having less ground clearance. Two months before the occurrence of the incident, another person namely Mr. Chand Sohail also got injured due to this high risk public safety hazard, however, Licensee staff failed to remove it. It is the prime responsibility of Licensee to take notice of such safety hazards as laid down in the Consumer Service Manual.

#### **NEPRA Performance Standard (Distribution) Rules**

##### **Rule 4(g) – Safety**

- (i) *All distribution facilities of a distribution company shall be constructed, operated, controlled and remained in a manner consistent with the applicable documents.*
- ii) *A distribution company shall ensure that its distribution facilities do not cause any leakage of electrical current or step potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which results in voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company.*
- iii) *A distribution company shall implement suitable, necessary, and appropriate rules, regulations and working practices, as outlined in its Distribution Code or applicable documents, to ensure the safety of its staff and members of the public. This shall also include suitable training for familiarity and understanding of the rules, regulations, practices, and*

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*training to use any special equipment that may be required for such purposes including without limitation basic first aid training.*

#### **Distribution Code**

##### **SR 4, Safety Management Criteria**

- a. *All distribution facilities of a distribution company shall be constructed, operated, controlled and remained in a manner consistent with the applicable documents.*
- b. *A distribution company shall ensure that its distribution facilities do not cause any leakage of Electrical Current or Step Potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which results in voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company.*
- c. *A distribution company shall implement suitable, necessary, and appropriate rules, regulations and working practices, as outlined in its Distribution Code or applicable documents, to ensure the safety of its staff and members of the public. This shall also include suitable training for familiarity and understanding of the rules, regulations, practices, and training to use any special equipment that may be required for such purposes including without limitation basic first aid training.*

Chapter 12 of the Consumer Service Manual obligates each distribution licensee to ensure that its overhead lines, poles, and structures are maintained at a clearance from ground and buildings to avoid any safety hazard. Further distribution licensee is duty-bound to issue notice in case of construction/extension of a building near distribution lines for violation of safety standards as laid down in the Consumer Service Manual and Distribution Code.

#### **Chapter 12 Consumer Service Manual**

##### **12.2 Obligations of GEPCO**

*GEPCO shall monitor and implement the safety and security plan for consumers. The safety and security objectives can be achieved by adopting good engineering practice, including measures as described below:*

*12.2.1 Operation and maintenance of GEPCO distribution system /Network shall be carried out only by the GEPCO authorized and trained personnel.*

*12.2.2 GEPCO system equipment, including overhead lines, poles/structures/towers underground cables, transformers, panels, cutouts, meters, service drops, etc. shall be installed and maintained in accordance with Grid Code, Distribution Code and other relevant documents.*

.....  
*12.2.6 GEPCO will issue a notice to the Consumer(s)/Person(s), in case of illegal construction, extension of building under or near the distribution/ transmission lines for violation of safety standards.*

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## **12.4 SOME USEFUL SAFETY TIPS**

12.4.6 Safe clearances from electricity conductors and equipment (e.g., hazardous extension of balconies at the upper stories of houses in mohallas which comes within close proximity of electric lines) must be maintained to avoid electrocution.

### **Distribution Code**

#### **SC I- System Construction Code**

Each Licensee shall prepare a comprehensive and exhaustive Operating / Construction manual in accordance with GEPCO approved standard based on relevant international standards like IEC, IEEE, and ASI, Consumer Service Manual, Grid Code and Distribution Code dealing with all material aspects to the design specifications, safe constructing practices, and sound engineering technical principles for construction of Distribution System and connections to consumer installation/system. In particular due regard shall be had for the following but not limited to: -

- a. Standard clearance of all voltage lines upto 132kV (vertical as well horizontal) from grounds, buildings, from each other, railway crossing, road crossing etc.
- b. Maximum and minimum length of span of the lines of all the voltages upto 132kV at different locations and different areas.

#### **DDC 2.2 Distribution Design Code**

Design Criteria for Distribution Lines These criteria shall apply to all distribution and sub-transmission lines and to be operated and maintained by the Licensee up to and including 132kV for both overhead lines and underground cables. The lines shall be designed and constructed in accordance with relevant provisions of IEC Standard or subsequent approved standards applicable to overhead lines and under-ground cables.

### **DDC 3 DESIGN PRINCIPLES, Distribution Design Code**

#### **3.1 Specification of Equipment, Overhead Lines and Underground Cables**

- a. The principles of design, manufacturing, testing and installation of Distribution Equipment, overhead lines and underground cables, including quality requirements, shall conform to applicable standards such as IEC, IEEE, Pakistan Standards or approved current practices of the Licensee.
- b. The specifications of Equipment, overhead lines and cables shall be such as to permit the Operation of the Licensee Distribution System in the following manner;
  - i. within the safety limits as included in the approved Safety Code of the Licensee or the relevant provisions of the Performance Standards (Distribution);

Licensee could not produce any substantial evidence showing that efforts were made to prevent such constructions below the HT lines. Therefore, Licensee has failed to prevent the construction of buildings dangerously close to the HT lines which have unsafe clearance with respect to the existing lines which ultimately led to fatal accidents. Moreover, Licensee is unable to prevent safety. Therefore, Licensee has contravened Section 21(2)(f) of the NEPRA Act, Article 11 of the Distribution Licence read with Rule 4(g) of the NEPRA Performance Standards (Distribution) Rules, 2005,

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Clause 4 of the Safety Requirements of Distribution Code, DDC 2.2, DDC 3 of Design Code of Distribution Code, SC 1 of System Construction Code of Distribution Code, and Chapter 12 of Consumer Service Manual.

#### IV. LACK OF SAFETY MEASURES/CULTURE:

During review of the preliminary inquiry reports, it has been observed that three (03) fatalities of Licensee employees occurred due to lack of safety measures/culture in the Licensee's service territory. Further, details are following:

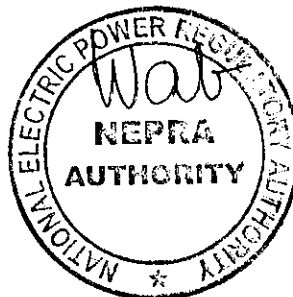
- i. Mr. Imtiaz Ahmed (LM-T&G)
- ii. Mr. Asif Nawaz (LM-II)
- iii. Mr. Muhammad Ali (ALM)

The root cause of the accidents was casual attitude, risky decisions, supervisory lapses, carelessness, unprofessional behavior, and non-compliance with safety-related operating procedures by the Licensee's staff. Failure to ensure the issuance of PTW, using improper PPE, and lack of supervision of work under safety precautions at the worksite are also contributing factors to this accident. Moreover, the execution of work in an unplanned and haphazard manner is also a reason for the fatal accident.

Pursuant to performance standards laid down for the distribution licensees, Licensee is required to implement suitable, necessary, and appropriate rules, regulations, and working practices, as outlined in the Distribution Code or applicable documents, to ensure the safety of its staff and members of the public. This shall also include suitable training for familiarity and understanding of the rules, regulations, practices, and training to use any special equipment that may be required to create awareness among employees and inculcate a safe environment.

#### **NEPRA Performance Standard (Distribution) Rules** **Rule 4(g) – Overall Standard (Safety)**

- (i) *All distribution facilities of a distribution company shall be constructed, operated, controlled and remained in a manner consistent with the applicable documents.*
- (ii) *A distribution company shall ensure that its distribution facilities do not cause any leakage of electrical current or step potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which results in voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company.*
- (iii) *A distribution company shall implement suitable, necessary, and appropriate rules, regulations and working practices, as outlined in its Distribution Code or applicable documents, to ensure the safety of its staff and members of the public. This shall also include suitable training for familiarity and understanding of the rules, regulations, practices, and training to use any special equipment that may be required for such purposes including without limitation basic first aid training.*





## **Distribution Code**

### **SR 4, Safety Management Criteria**

- a. *All distribution facilities of a distribution company shall be constructed, operated, controlled and remained in a manner consistent with the applicable documents.*
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- c. *A distribution company shall implement suitable, necessary, and appropriate rules, regulations and working practices, as outlined in its Distribution Code or applicable documents, to ensure the safety of its staff and members of the public. This shall also include suitable training for familiarity and understanding of the rules, regulations, practices, and training to use any special equipment that may be required for such purposes including without limitation basic first aid training.*

### **Clause PSC-1, PSC-2, & PSC-6.3 of Power Safety Code:**

#### ***PSC-1 Purpose:***

*The purpose of this safety code is to ensure that the licensee's networks are planned, developed, operated and maintained in an efficient & safe way without compromising on safety of any kind related to the systems, personnel & others.*

#### ***PSC-2 General Instructions of Power Safety:***

*The licensee shall abide by the safety requirements as set out in Power Safety Code, Distribution Code, Power Safety Manual, Performance Standards (Distribution) Rules 2005, Grid Code & other applicable documents.*

*The licensee shall promote a healthy & safe culture and provide all employees, contractors, and the people concerned and the public with a safe & healthy place to work. The Licensee shall ensure that safe working is integrated into every aspect and area of business. Moreover, safety culture shall be based on personal leadership, collaboration and involvement.*

*The licensee shall adhere to the highest standards in all work practices so as to ensure protection of employees and any other affected by what licensee do. Each licensee shall ensure in day to day work that facilities/support programmers are provided to safe guard the health, welfare & wellbeing of their staff.*

#### ***PSC-6.3 General Provisions of Safety:***

*The general provisions of safety shall be provided by each licensee covering the following:-*

- *The provisions for workers/operators to object to doing work on safety grounds*
- *The use & wearing of safety equipment & protective clothing*



- *Physical fitness & personal conduct of the worker before and during on job*
- *Arrangement and procedure of job briefing before the work is started*
- *Requirements to safe guard the public and property when work in progress*
- *Requirements for housekeeping in a safe working conditions*
- *Arrangements and requirements of fire protection*
- *Requirements, arrangements and use of proper tools and plants for the proper and safe storage lifting and carrying of different types of material*
- *Procedure and reporting requirements of patrolling of lines*
- *Procedure for tree trimming*
- *List of common protective devices and equipment used for the safety purposes.*

**V. ANALYSIS AGAINST SUBMISSIONS OF GEPCO IN RESPONSE TO THE SCN SERVED:**

- a. The Licensee has submitted that it has always followed/implemented Performance Standards as laid down in PSDR-2005. Further Licensee's Distribution and Transmission System is in accordance with the Standard Design and there is no chance of leakage/step potential problem, which may be hazardous to life and property, and is safe in all respects.

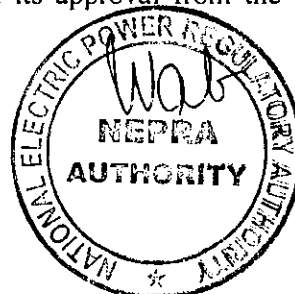
The Authority has considered the submissions of the Licensee and observers that despite the Licensee's claims of compliance with PSDR-2005 s and adherence to standard design principles in their distribution and transmission system, still a number of fatalities are occurring due to leakage of current. The submissions of the Licensee regarding no chance of leakage/step potential problem are on paper only, however, on grounds the situation is contradictory due to which two lives were lost as mentioned above. Therefore, the submissions of the Licensee are not factual.

- b. The Licensee has submitted that it has established Training and Development Centre where the line staff personnel are imparted with high quality training for capacity building and enhancement of their technical skills. All field staff, Sub Divisional Officers, Line Superintendents, Linemen and Assistant Linemen are also being imparted Quick Impact Safety Training.

The Authority has gone through the submissions of Licensee and observes that while Licensee highlights its training programs for staff, including line personnel, Sub Divisional Officers, and linemen, these initiatives alone may not be enough to address the issues of fatalities occurring in its territory. The effectiveness of the trainings should be scrutinized whether the current trainings are comprehensive enough to address the specific challenges of preventing Safety hazards? Additionally, factors beyond training, such as adherence to safety protocols in the field and proper maintenance practices are mandatory to avoid fatal accidents in its territory.

- c. The Licensee has claimed about itself that it was the first Distribution Company where HSE Directorate was established and HSE Management System is being deployed and implemented in true spirit. In this regard, time to time instructions, as received from NEPRA are being implemented. The prima facie evidence is preparation/modification of Licensee HSE Manual in line with the NEPRA Power Safety Code and its approval from the NEPRA Authority,

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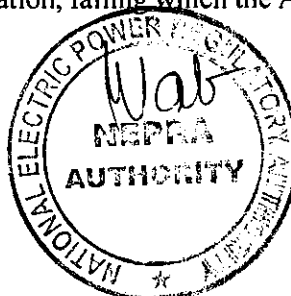
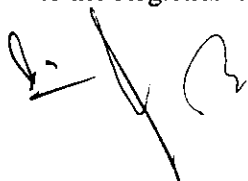
particularly stating therein the conduction of Behavior Assessment Safety Walks to have check on the daily activities of line staff to inculcate safety culture among them.

The Authority has examined the submissions of the Licensee and observes that all the aforementioned efforts taken by Licensee seem positive developments, however, the continuous occurrence of fatal accidents shows the non-tangible implementation of its efforts on the ground. The potential gaps in implementation, or lack of enforcement in the established safety protocols in more effective manner to mitigate electrical hazards are the possible reasons in non-prevention of fatalities. It is essential to reiterate that Licensee cannot be absolved of its ultimate responsibility for ensuring public safety within its area of operation.

- d. In addition to the above, the Licensee has highlighted its various efforts to inculcate safety culture in its territory. The Authority has considered the same and observes that Licensee's implementation of various safety initiatives, including awareness campaigns via WhatsApp groups, public education programs, and safety publications, demonstrates a commitment to consumer safety. However, the continued occurrence of fatal electrical accidents necessitates a more critical evaluation of their effectiveness.

#### 10. **Decision**

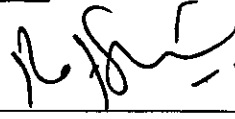
- 10.1. Keeping in view the submissions of the Licensee, the evidence available on record, and provisions of relevant NEPRA laws and terms and conditions of distribution license issued to the Licensee, the Authority hereby rejects the response of the Licensee against the served Show Cause Notice dated August 30, 2023, and imposed a fine of PKR 23,000,000/- (Twenty-three Million) on the Licensee under the NEPRA Act, and NEPRA (Fine) Regulations, 2021 on account of non-compliance by the Licensee with NEPRA Act, Terms & Conditions of its License, Performance Standards (Distribution) Rules 2005, Distribution Code, Power Safety Code, Consumer Service Manual and other applicable documents.
- 10.2. The Authority has also observed that the Licensee gives compensation of PKR 4.0 Million to the families of its employees in case of their fatal accidents along with a job to next of kin. However, the Licensee has not provided compensation to the members of bereaved families of public persons who lost their lives due to the above-mentioned contraventions of the law by the Licensee. Therefore, the Authority hereby directs the Licensee to give compensation to the families of six deceased public persons equal to the amount being given to its employee's family and provide jobs to their next of kins. Further, the Licensee shall submit documentary evidence of its compliance in this regard to the satisfaction of the Authority within a period of two months.
- 10.3. The Licensee is directed to pay the fine amount of PKR 23,000,000/- (Twenty-three Million) in designated bank of the Authority within a period of 15 days from the date of issuance of this order and forward a copy of the paid instrument to the Registrar Office for information, failing which the Authority may recover



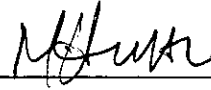
the amount due under section 41 of the NEPRA Act as arrears of the land revenue or through any other appropriate legal means in addition to taking any other appropriate legal action against the Licensee for non-compliance.

**AUTHORITY**

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Member (Technical)



Engr. Maqsood Anwar Khan  
Member (Licensing)



Mathar Niaz Rana (nsc)  
Member (Tariff)



Amina Ahmed  
Member (Law)



Waseem Mukhtar  
Chairman



Dated October 28, 2024

