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National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/DG(M&E)/LAD-05/ 12951

August 09, 2024

Chief Executive Officer, Lahore Electric Supply Company Limited (LESCO), 22-A. Queens Road, Lahore

Subject: ORDER OF THE AUTHORITY IN THE MATTER OF SHOW CAUSE NOTICE ISSUED TO LESCO UNDER SECTION 27B OF THE NEPRA ACT READ WITH OTHER RELEVANT RULES & REGULATIONS OF THE NEPRA ACT, ON ACCOUNT OF FATAL ACCIDENTS THAT OCCURRED IN LESCO DUE TO MONSOON SPELLS IN JULY 2023

Please find enclosed herewith, the Order of the Authority (total 26 pages) in the subject matter for information and compliance.

Enclosure: As above

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(Wasim Anwar Bhinder)



National Electric Power Regulatory Authority

<u>ORDER</u>

SHOW CAUSE NOTICE TO LESCO UNDER SECTION 27B OF THE NEPRA ACT READ WITH OTHER RELEVANT RULES & REGULATIONS OF THE NEPRA ACT, ON ACCOUNT OF FATAL ACCIDENTS THAT OCCURRED IN LESCO DUE TO MONSOON SPELLS IN JULY 2023.

1. Lahore Electric Supply Company Limited (LESCO) (the "Licensee") was granted a Distribution License (No. DL/03/2023 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. It was reported that there were severe storms and heavy rainfall in Lahore on 05.07.2023, and onwards. As a consequence, trees toppled onto electricity wires/conductors, leading to the breaking of conductors and the collapse of HT/LT poles, which resulted in numerous electrocution cases within the service territory of the Licensee. The Authority while taking stern notice of such fatalities observed that the Licensee has not taken appropriate measures to up-grade/rehabilitate its distribution system and prevent fatal accidents. The incidents have raised serious concerns regarding safety and effectiveness of the Licensee's distribution network and its ability to supply electricity while fully adhering to its statutory and license obligations.
- 3. The Authority, after detailed deliberations upon the matter, was of its considered view that the incidents need to be thoroughly investigated in order to ascertain the causes for the incidents and ensure that responsibility/accountability for the incidents to be fixed and appropriate legal actions to be taken against the entity responsible i.e., the Licensee.
- 4. Therefore, the Authority ordered an investigation of the incident under section 27A of the NEPRA Act, 1997, that appears to have occurred due to violation of NEPRA Act, Rules, Regulations, Codes, Standards, Criteria, Manuals, and other applicable documents and conditions of its Distribution License by the Licensee. A notice regarding the investigation and constitution of the Investigation Committee (IC) in the matter was issued to the Licensee under section 27A of the NEPRA Act vide dated 12.07.2023.
- 5. The IC visited the Licensee's Head Office, Lahore on 14.07.2023 and conducted the investigation of seven (07) fatal accidents for public persons as per the list provided by the Director (HSE), of the Licensee.



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- 6. Later on, there was a second spell of monsoon started on 19.07.2023 and unfortunately, five (05) more fatalities (01 Employee and 04 Public Persons) were reported. The Authority took notice and directed IC to also investigate these cases and club the same with already investigated incidents under the same approved TORs. Accordingly, the Licensee was intimated through a notice dated 01.08.2023, and IC conducted the investigation of the same.
- 7. Overall, IC investigated a total number of 12 fatalities (01 Employee and 11 Public Persons) during the month of July 2023. Accordingly, IC submitted the report on 13.09.2023, based on facts and findings.
- 8. Based on the analysis and findings of the investigation Report, the Authority decided to issue a Show Cause Notice (SCN) to the Licensee under Section 27B of the NEPRA Act, 1997 because out of 12 fatalities, 09 fatalities (01 employee & 08 public) have occurred due to negligence of the Licensee as the Licensee has failed to construct, maintain and operate its distribution facilities in accordance with the NEPRA Act, rules, regulations, and codes made thereunder and its license terms and conditions more particularly Section 21 (2) (f) of NEPRA Act, Article 11 of its Distribution License, Rule 4 (g) of Performance Standards (Distribution) Rules 2005, SR 4 Safety Requirements of Distribution Code, DDC 2.2, DDC 3 & DDC 4 Design Principles Distribution Design Code, SC 1 of System Construction Code of Distribution Code, PSC 1, PSC 2 & PSC 6.3 of Power Safety Code and Chapter 12 of Consumer Service Manual and other relevant provisions of applicable documents.

Show Cause Notice

- 9. Accordingly, a SCN was issued to the Licensee on 23.10.2023, under Section 27B of the NEPRA Act, 1997. The said SCN, interalia, read as under;
 - 3. "WHEREAS, the Authority, in exercise of its functions and duties as entrusted upon it under the NEPRA Act, initiated investigation under Section 27(A) of the NEPRA Act and constituted an Investigation Committee to investigate into fatal accidents in the Licensee's service territory occurred in July 2023 due to Monsoon Spells.
 - 4. WHEREAS, the investigation was concluded vide Investigation Report dated September 08, 2023, (hereinafter referred to as the "Investigation Report") which is attached as Annex A; and
 - 5. WHEREAS, in terms of the Investigation Report, a total of twelve (12) fatalities occurred in the Licensee's territory during the month of July 2023. It was revealed during the investigation that apparently, nine (09) fatalities were resulted due to lack of earthing, leakage of current, deteriorated distribution system, design fault, improper protection system, less clearance of HT lines, and lack of safety measures/culture by the Licensee. The

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Authority also observed that even in those cases where the IC has observed negligence on part of other persons, it appears that further improvement is required in the procedures and system of the Licensee. Therefore, the Licensee is directed to explain its position with regard to those cases as well and the steps taken by it for further improvement; and

- 6. WHEREAS, in terms of the Investigation Report, it revealed that numerous fatalities occurred due to leakage of current in HT/LT poles of distribution network of the Licensee. These poles/structures either lacked earthing or their earthing was ineffective and therefore, could not prevent electrocution due to leakage of current and resulted in the fatal accidents of Mr. Muhammad Ehtisham, Unknown (Female), Mr. Matloob Hussain, Mr. Zubair, and Mr. Faizan. In case of Mr. Muhammad Ehtisham and Mr. Matloob, the earthing of the Steel Structure was ineffective which led to their fatalities. Similarly, in case of Unknown (Female), if the Licensee is using the street light pole to support its lengthy PVC cables, it should have ensured the earthing of that pole in order to avoid any fatal/non-fatal accident due to leakage of current. Further, in the case of Mr. Zubair and Mr. Faizan, if the earthing of the LT structure was ensured, there would have been a chance to save precious human lives despite the fact that the repair work was substandard by the construction team and lack of supervision by operational team. In addition, there was no proper handing/taking over of system was carried out between construction and operation departments after completion of work, and supply was restored which caused the electrocution of these two children. It is a statutory obligation of the Licensee to ensure that its distribution facilities do not cause any leakage of electrical current. Apparently, the Licensee is not following 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. Therefore, the Licensee is in violation of 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 4 of Design Code of Distribution Code and Chapter 12 of Consumer Service Manual; and
- 7. WHEREAS, in terms of Investigation Report, it appears that, at various sites, the Investigation Committee observed faulty and deteriorated HT/LT system of the Licensee. In some cases, either protection devices were inoperative or in dilapidated condition and failed to isolate the HT/LT system in case of breaking/falling of conductors which caused leakage of current as observed in the cases of Mr. Muhammad Usman and Mr. Kashif. In case of Mr. Muhammad Usman, the conductor was in dilapidated condition which led to its breakage, falling on ground, and subsequently death of the victim. Similarly, in case of Mr. Kashif, the lengthy PVCs were



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used to supply electricity to the houses against the SOPs, which were broken and led to the fatality of the deceased. Apparently, the Licensee is 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, the 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; and

- 8. WHEREAS, in terms of Investigation Report, it appears that the houses have been constructed directly below the 11 kV Line. Particularly, in the case of Mr. Saifullah, the fatality of the victim occurred due to coming in contact with the 11kV line which was dangerously close to the roof of the victim's neighbor's house. The same serious safety hazard is also present in many nearby houses. It is the prime responsibility of the Licensee to take notice of such constructions near/below its distribution/transmission lines to avoid any safety hazard. As the Licensee could not produce any substantial evidence showing that efforts were made to prevent such illegal constructions below the HT lines which were constructed long ago. The documents provided in this regard are either very recent. Therefore, the Licensee has prima facie failed to prevent construction of buildings vertically below the HT lines which have unsafe clearance with respect to the existing lines which ultimately led to this fatal accident. Therefore, the 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, 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; and
- 9. WHEREAS, in terms of Investigation Report, it appears that the fatality of Mr. Khalid Bajwa (LM-II) occurred due to lack of safety measures/culture in the Licensee's service territory. The root cause of the accident 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, execution of work in an unplanned and haphazard manner is also reason for the fatal accident. Pursuant to performance standards laid down for the distribution licensees, the 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

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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 safety environment. Hence, the Licensee has, failed to comply with 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, Clauses DDC 3 & 4 of Design Code of Distribution Code, Clause PR 1 of Protection Requirements of Distribution Code, Clauses PSC 1, PSC2 and PSC6.3 of Power Safety Code; and"

Submissions of the Licensee

10. The Licensee vide its letter dated 04.01.2024 submitted its response to the abovementioned SCN, whereby, the Licensee stated as under:

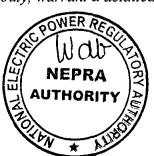
> "In examining the unfortunate series of accidents that transpired during the July 2023 within the LESCO, it becomes evident that each incident was the result of natural calamity, extraordinary weather conditions, individual actions and human behavior. In order to bring fatal accidents to zero, first there is a dire need to analyze the root causes of such accidents. We approach this analysis with a commitment to transparency and a genuine desire to ensure the safety of both our valued employees and the public we serve. It is essential to recognize that while we have robust safety protocols, SOPs and rigorous training & general public awareness programs in place. still because of having the overhead electrical distribution network, the root causes of these accidents often trace back to the natural causes, weather conditions, choices and actions of individuals. By delving into each case, we aim to shed light on the critical role of personal responsibility and behavior in preventing such occurrences in the future. LESCO remains steadfast in its dedication to enhancing safety standards and fostering a culture of individual accountability.

Analysis of Fatalities of Employees:

It is stated in the investigation report compiled by NEPRA authority that in the July 2023 total 08 fatal accidents of general public occurred in LESCO territory due to negligence of the licensee. First of all, LESCO acknowledge the occurrence of these accidents and want to show the heartfelt condolences to the families of the deceased. LESCO wants to use this opportunity to take the corrective actions to ensure the safety of the both of their public and employee.

However, it is important to mention here that all the accidents are result of some uncomfortable and extraordinary natural elements. The series of accidents that occurred in LESCO's territory during July 2023, particularly on the dates of 5, 6, 19, and 20 July, warrant a detailed examination in the

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context of the extraordinary and uncontrollable weather conditions that prevailed during that period.

As confirmed by the Pakistan Meteorological Department's Monthly Climate Summary of July 2023, the Lahore City's rainfall for that month was significantly above average, making it the 9th wettest July in the past 63 years. On the wettest day, Lahore, Punjab, recorded an unprecedented 206.0 mm of rainfall, making it the wettest place with a monthly total of 668.7 mm. These figures underscore the exceptional and unforeseeable nature of the weather events during that month. The fact that these accidents clustered on the aforementioned consecutive days, in conjunction with this exceptional weather data, serves as compelling evidence that these accidents were primarily a result of natural weather conditions.

Furthermore, it is crucial to highlight that the extraordinary rainfall had a cascading effect on Lahore's overall drainage system. The heavy rainfall led to the choking of the Water and Sanitation Agency (WASA) drainage system, a vital subsidiary of the Local Punjab Government. This blockage resulted in stagnant water accumulating throughout the city. It was this stagnant water, coupled with a heavy windstorm that resulted in sudden deterioration of distribution network, that significantly contributed to the accidents during this period.

It is important to reiterate that these unfortunate incidents had no direct connection with any operational or systemic shortcomings within LESCO's distribution network. Such extraordinary weather events, as experienced in July 2023, have the potential to significantly disrupt the daily lives and safety of the public and no entity can be held solely responsible for them. It is imperative to consider these uncontrollable external factors when assessing the circumstances surrounding these Accidents.

Furthermore, it is important to highlight that the accidents in question occurred exclusively on the specific dates of 5, 6, 19, and 20 July, coinciding with the exceptional and unmanageable weather conditions. This timing is significant because if there were any issues or shortcomings in the LESCO distribution network that could lead to such accidents, they would likely have manifested on random days and not solely during periods of extreme rainfall, windstorm and stagnant water making up a situation of natural calamity. The fact that, Alhamduliulah, no such accidents have been reported after the aforementioned dates strongly indicates that the LESCO distribution network is indeed functioning effectively during non-extreme and extra ordinary weather conditions.

The breakdown of root causes for the eight fatal accidents of the public men reported in July 2023 in LESCO reveals a clear pattern where individual actions and mistakes played a pivotal role.

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- The casualty of Mr. Muhammad Ehtisham on July 05, 2023 was reported on the day of heavy raining. As per the inquiry conducted by LESCO, two public men were going on the bike through a street filled with stagnant rain water few feet deep. Suddenly, the bike slipped and caused both riders to fall in the water. One individual immediately fainted and eventually passed away. However, the other person managed to escape. There were no signs of electrocution and HT/LT breakdown or presence of any other solid evidence that could point out the potential electrocution of the deceased. Moreover, if there would have source of leakage current, the other individual would have also received an electric shock as there was immense stagnant rain water. However, this is not the case and therefore, this indicates that the extreme unfortunate death of Mr. Muhammad Ehtisham cannot be linked with the LESCO's distribution network.
- Similarly, the casualty of an Unknown Female on July 05, 2023 was reported in the area of Qila Muhammadi subdivision on the day of heavy raining. As per the inquiry conducted by LESCO, that the report of falling an unknown woman, while crossing a road, in stagnant rain water was reported to SDO Sheranwala subdivision. Initially, it was suspected that victim received an electric shock. However, there were no signs of electrocution physically and HT/LT breakdown or presence of any other solid evidence that could point out the potential electrocution of the deceased.
- Mr. Matloob Hussain, resident of Raiwand was reported to receive an electric shock on July 05, 2023 in the area of Raiwand subdivision on the same day of heavy raining as two aforementioned cases. As per the inquiry conducted by LESCO, Mr. Matloob Hussain was coming back from work at 05:00 AM in the morning of above said date. For crossing the street filled with rain water, he removed his shoes and after removing his shoes, he grabbed the earth wire of the 200kVA transformer to brace himself and passing through the water. When he grabbed the grounded-neutral wire, he received the electric shock which unfortunately turned out to be fatal. In this case, the deceased received an electric shock through grounded-neutral wire. Since the body of the deceased was wet and he received an electric shock due to presence of water on his body and clothes, which provided the path to the current. In this case, the Mr. Matloob Hussain overlooked the fundamental rule of electrical safety and he contacted the electrical wire with wet body under extreme rainy and wet conditions. This incident needs to be viewed on the basis of individual action as well.
- The report of electrocution of Mr. Zubair & Mr. Faizan was received on July 19, 2023 at 03:40 PM in the office of DHA East Subdivision



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under Defense East Division. Reportedly, there was heavy rainfall on that day and there was accumulated rain water in the narrow street of Charar village. The children, Zubair & Faizan, were playing in the rain water and they come into the contact with LT Steel structure and they both received an electric shock which eventually turned out to be fatal. In this case, the said LT steel structure did not have proper earth. Moreover, two days before the accident, the Construction Staff executed the work of reconducting of the line with insulated conductor. This work was forced to be completed swiftly because of public pressure under hostile environment, which resulted in the presence of a potential path for leakage current. However, it is important to mention that at the time of completion, there was no complaint of leakage current in the pole was reported. However, heavy windstorm and rain fall resulted in stimulating the leakage current from LT line to pole, therefore, in this case as well, the extraordinary weather conditions cannot be left unaccounted for in setting up the accountability.

- In case of Mr. Usman and Mr. Kashif, the death of the both deceased is allegedly due to the breaking of LT line and a PVC cable, respectively, although the reason of death of Mr. Kashif cannot be linked with electrocution with certainty. In Investigation report, it is stated that the investigation committee observed faulty and deteriorated HT/LT system. However, it is a matter of fact that overhead distribution network is always error prone by nature and it can be stimulated by the environmental conditions like heavy wind storm and rainfall. However, despite having extremely limited resources, LESCO is committed to make its distribution network safer and reliable for both its public and employees as per WAPDA SDI.
- Another fatality of public men by the name of Mr. Saifullah was reported on July 06, 2023 in Renala Rural Subdivision under Renal Khurd Division. As per the inquiry conducted by LESCO, there was an illegal construction of a domestic home under 11 kV Kund Bohar feeder in village Bama Bala. The said 11 kV feeder was commissioned long ago and at the time of commissioning there were not constructions under the feeder. However, there were illegal construction under the said feeder. A house was built under the feeder, however, the vertical clearance of the house from the feeder was about 5-6 feet. On the day of incident, a child, Saifullah, was playing on the roof of his home. He threw a wire tied with a rock on the 11kV conductor, which came in contact with the feeder and consequently received an electric shock which turned out to be fatal.



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Analysis of Fatalities of Employees:

There was one fatal accident of LESCO employee was reported in July, 2023.

 Mr. Khalid Bajwa (LM-I) of Shad Bagh subdivision met with a fatal accident on August 03, 2023. As per inquiry conducted by LESCO, Mr. Khalid Bajwa (LM-I) was working on the 11kV feeder without availing PTW and proper earthing. Resultantly, he received an electric shock from 11 kV conductor which unfortunately turned out to be fatal. In this case, the main root cause of this accident was individual behavior, risk decision and noncompliance with the proper safety measures.

The fact that this accident occurred due to working carelessly and in haste and it was outcome of gross unsafe acts committed by individuals, such as working on energized lines, underscores the critical importance of personal responsibility and behavior.

Accident Prevention Efforts by LESCO:

• Awareness Campaign for General Public:

In addition to our commitment to operational excellence and safety, LESCO has proactively undertaken a comprehensive public awareness campaign, particularly during the monsoon season, to prevent accidents involving the general public. Recognizing the unique challenges posed by extreme weather conditions, we have implemented targeted initiatives to educate and inform the public about potential risks and safety measures. This campaign encompasses various channels, including social media, community engagement programs, and informational materials distributed across our service area.

• Strict Implementation of Safety SOP's & PTWs:

To this end, we are actively enforcing comprehensive Standard Operating Procedures (SOPs) that are not only meticulously designed but also easy to implement, ensuring that safety measures are practical and accessible to all. LESCO HSE team is committed to keep a strict check and balance for taking Permit to Works (PTW) and energization of conductors prior to work.

To curb accidents stemming from work without proper permits (PTW), LESCO has rolled Out an E-Permit to Work (E-PTW) system. In this system, dedicated WhatsApp groups for each circle enable quick PTW request forwarding by Sub-Divisional Officers (SDOs).

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• Behavior Based Trainings for Line Staff

Our behavior-based training programs are geared towards instilling a heightened sense of personal responsibility and safety consciousness among our employees, while quick impact safety training programs for supervisors ensure that safety leadership is ingrained at every level of our organization. In order to build positive human behavior so that unsafe acts can be avoided, LESCO has introduced behavior-based safety training programs. These programs focus on cultivating safe work habits, fostering responsible decision-making, and instilling a culture of individual responsibility toward safety.

• Hazard Identification and Removal for Safe System

We are actively addressing hazards and unsafe conditions, and proactively identifying and rectifying potential risks to create a safer working environment. LESCO HSE directorate and CE (O&M) collectively supervise the Hazard identification and prompt removal of hazards for creating a safe working environment. A large chunk of O&M budget is spent on hazard removal and ensuring safe distribution system for both public and employee."

Hearing

- 11. The Authority considered the response of the Licensee and decided to provide an opportunity for a hearing. Accordingly, hearing in the matter was held on 30.01.2024, wherein CEO of the Licensee along with his team made the following submissions:
 - a. According to the Meteorological Department, July 2023 witnessed the highest recorded rainfall in the past 63 years.
 - b. The unprecedented rainfall led to the collapse of over 200 poles/structures, marking an unprecedented event in the history of LESCO, with such a large number collapsing in a single day.
 - c. Due to rain, the water accumulated in the streets, which resulted in the collapse of LESCO system.
 - d. After the heavy rainfall in July 2023, there were no reported public fatalities, and the LESCO system withstood subsequent rains.
 - e. After the emergency situation, LESCO deputed all the staff of construction, street lights, and GSC departments to restore the supply as soon as possible.
 - f. Those rains were beyond the LESCO's threshold sustainable limits, due to which the system collapsed.

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- g. Despite the Anti-theft campaign in the country, LESCO has not compromised on the maintenance work.
- h. There is acute shortage of 8000 staff in LESCO, however, we are managing the maintainace work through available resources.
- i. Tree trimming has been done by 85%, and the replacement of Jumpers & and tilted poles has been executed by around 65%
- 12. In addition to the aforementioned submissions, the Licensee vide its letter dated 02.02.2024, tried to submit additional grounds, however, after going through the same it is observed that the Licensee has repeated its earlier stance and no new submissions have been provided.

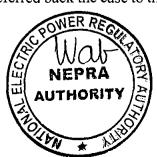
Analysis/Findings of the Authority:

- 13. Whereas the Authority had taken notice of twelve (12) fatalities while issuing order for investigation, the lapses/violations of NEPRA laws were observed in nine (09) cases of fatalities. Each of the nine (09) cases involving fatalities (01 Employee of LESCO and 08 members of the general public) as a result of a violation of the NEPRA Act, rules and regulations made thereunder are discussed as follows:
 - 13.1 Name of the Victim: Mr. Muhammad Usman (Public Person)
 Date of Accident: July 05, 2023 at 07:17 AM
 Place of Accident: Ismail Nagar Sub-Division, Kot Lakhpat Division.

The accident site is street # 05 of Bostan Colony, Lahore over which an LT line is passing with the support of Steel Structures. The LT system was energized through a 200 KVA trolly-mounted transformer at the time of accident. Further, the transformer was fed through 11kV Ferozpur road feeder which emanates from the 132kV Old Kot Lakhpat Grid Station. On the day of accident, there was heavy rainfall and windstorm which caused the breakage of LT span/conductor. The conductor fell on the ground and was submerged in the rainy water accumulated in the street, due to which the water got energized. The victim namely Mr. Muhammad Usman while passing through the street on a bike, came into contact with energized water, received severe electric shock, and died on the spot.

IC met with the victim's father namely Haji Muhammad Afzaal. He stated that as they got the information from local people about the incident, they started calling the Licensee's Helpline but it did not respond. After that, they called the concerned person at the Ismail Nagar subdivision, however, he also didn't attend their calls. Finally, the person at subdivision attended the call after multiple attempts, but he said that this case belonged to Walton subdivision. Surprisingly, while contacting the Walton subdivision, they referred back the case to the Ismail Nagar subdivision.

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Two & half hours after the occurrence of incident, the electricity was switched off with the help of Rescue 1122.

During the visit to the site, it was observed by the IC that LT Span, which was fallen in the water and caused this fatality, was in a dilapidated condition that could not sustain the pressure caused by rain/wind. The same was also admitted by XEN and SDO in their statements. It is the prime responsibility of the Licensee to maintain its HT/LT network efficiently for which O&M funds have been provided to it every year in its tariff determination. Putting old and dilapidated conductors in operation is a serious safety lapse on the Licensee's part. Moreover, after the breakage of the conductor, the fuses of the transformer didn't blow and the conductor remained energized despite falling on the ground. This establishes that the trolley-mounted transformer, which was feeding that LT span did not have proper fuses at the time of the accident. The same was witnessed by IC during the visit to the site, that even after the accident, improper roar fuses were installed at the transformer. If the fuses had blown, there would have been a chance of saving the victim's life. This further establishes that the accident occurred due to failure of the Licensee's protection system. It was also evident that the trolley-mounted transformer remained in operation for almost one month which is in violation of the Licensee's own SOP. Had the trolley been replaced with a healthy transformer along with all other protection devices, there would have been a chance to avoid this tragic accident.

The fatal accident occurred in violation of 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.

13.2 Name of the Victim: Mr. Muhammad Ehtisham (Public Person) Date of Accident: July 05, 2023 at 12:50 PM Place of Accident: Salamat Pura Sub-Division, Shalamar Division.

The site of the accident is an HT/LT steel structure in a street namely Yahya Park located in the Salamat Pura Sub-Division, Lahore. On the fateful day i.e. July 5, 2023, there was heavy rain in Lahore, due to which rainwater accumulated around 1-2 feet in the street. Meanwhile, two individuals namely Ehtisham (the victim) and Ahmed while crossing the rainwater-accumulated street, got slipped and fell on the ground near the steel structure. Consequently, Ehtisham passed away, however, Ahmed managed to escape.

During the investigation, an eyewitness namely Mr. Muhammad Jahangir told IC that he saw two kids coming on a bike, meanwhile, someone shouted ominously "*There is a current in the water*". One kid, who was sitting behind the victim, felt a current in his wet shoes, but he jumped and ran away, while the other one tried to control the bike and suddenly he touched the electric pole for support, from which

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he received a severe electric shock and fell in the water. But he could not be able to stand up and he found himself immobilized for 10-15 minutes. When rescue teams came, he was already expired and they declared him dead. More or less same facts narrated by the victim's brother Mr. Muhammad Fahad.

While visiting the site, IC witnessed an un-organized mesh of cables along with HT/LT conductors over the steel structure. Since the eyewitnesses stated that the victim fell on the ground near the structure and received electric shock while trying to get support from the structure to stand up, therefore, it can be said that the structure had contained leakage current due to breaking/puncturing of any of the insulated cable and subsequently touching of the same with the structure. The same is the reason behind the energization of stagnant water which was also endorsed by the eyewitness and victim's family members. During the visit, IC observed that the earthing/grounding of disputed steel structure seems afresh, however, the Licensee claimed that it was done a lot earlier. In order to verify the claim of the Licensee, IC checked the earthing of other nearby structures, however, the same was not found which establishes the stance of IC that prior to the occurrence of the accident, there was no earthing. The same was also endorsed by some inhabitants. Had the proper earthing been carried out earlier, there would have been a chance to avoid this tragic accident;

Further, the Licensee Officials claimed that they checked the resistance value of earthing 3 days before the visit of IC and found it within permissible limits i.e., 2.5 Ohms. However, when IC directed the Licensee to check/verify the same afresh in front of IC, they showed delayed tactics and did not perform the task. This appears that the Licensee's claim is not based on true facts due to which it was reluctant to check the resistance value of earthing of the structure in front of IC. It is pertinent to highlight that the Licensee in its internal inquiry report did not reach any conclusion with respect to the root cause of death and has mentioned that the victim died due to unknown reasons. This further proves that the Licensee is not denying the death of victim due to electric shock.

The fatal accident occurred in violation of 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 4 of Design Code of Distribution Code, Clause 7.21.2 of Power Safety Code, and Chapter 12 of Consumer Service Manual.



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13.3 Name of the Victim: Unknown (Public Female) Date of Accident: July 05, 2023 at 09:40 AM Place of Accident: Qila Muhammadi Sub-Division, Data Darbar Division.

The site of the accident is an old street light pole on a road separator (green belt), over which a PVC cable was crossing to feed electricity to the other side of the road. On the day of the accident i.e., July 5, 2023, there was severe rainfall in the area, and water was accumulated on the road. An unknown woman was walking on the road separator during the rain and while crossing the incident site, she fell on the ground filled with the accumulated water and died.

During the site visit, the IC interviewed some eyewitnesses too. The eyewitnesses namely Mr. Gul Nabi, Mr. Muhammad Azam, and Syed Atif, informed the IC that the woman received an electric shock while touching the pole over which a PVC is passing which seems punctured. During the rain, the current often flows through the pole which was felt by a lot of people in previous days.

In addition, IC witnessed that the PVC cable is punctured and is little way from the point of contact with the pole. Earlier this might have been the center point of touching with the pole due to which current was produced in the pole and the woman got electric shock while touching with the pole. This is the only possibility of the death of woman because there is no apparently other reason. The same was also endorsed by some evewitnesses. Moreover, XEN (OP), SDO (OP), and the Licensee's internal inquiry report do not mention any specific cause of death which further establishes that the Licensee has not sufficient proof to deny the occurrence of the accident due to electrocution from the pole. Furthermore, the nearby shopkeepers also mentioned that during rain, the current often flows through the pole, which has been felt by many people earlier. However, unfortunately, that woman could not sustain that current and died. The use of deteriorated and dilapidated street light pole by the Licensee for support of lengthy PVC is completely in violation of the Licensee's own SOP. Had the standard length of PVC been considered along with proper LT pole having earthing, there would have been a chance of saving the life of woman. Additionally, it was the prime responsibility of the Licensee to earth/ground the pole if it is being used by the Licensee for distribution of electricity, which it failed to do so. The Operation of the distribution system by the Licensee through such substandard practices since long, clearly indicate the seriousness of the Licensee towards the development of safety culture.

The fatal accident occurred in violation of 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 4 of Design Code of Distribution Code, Clause 7.21.2 of Power Safety Code, and Chapter 12 of Consumer Service Manyal.



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13.4 Name of the Victim: Mr. Matloob Hussain (Public Man) Date of Accident: July 05, 2023 at 05:00 AM Place of Accident: Raiwind Sub-Division, Raiwind Division.

The site of the accident is a Double Pole Mounted Substation (DPMS) with H-type PCC poles, where a 200kVA transformer was installed. The said PCC pole was supported by a stay wire too. On the day of the accident i.e. July 05, 2023, there was heavy rainfall due to which water was accumulated nearby the transformer. In the morning, at 05:00 AM, the victim namely Mr. Matloob Hussain was returning home after completing his shift in a nearby factory. For the purpose of crossing the incident site and moving towards the street, he removed his one shoe as there was accumulated water, and while removing his second shoe, he lost his balance. Meanwhile, he took the support of transformer neutral earth wire to control his balance. Resultantly, he received an electric shock and died on the spot. Later,

The victim died of severe electric shock while passing through the street, and came into contact with the grounded neutral wire of the transformer, which was carrying current. The same was evident from the videos and the pictures of the site, on the day of accident. The very reason of producing current in the neutral grounded wire is phase wise unbalancing of transformer. This means that the loading position on each phase was not equal and the transformer was in operation with major difference in phase-wise load, which is completely in violation of the Licensee's own SOP. The XEN (OP) and SDO (OP) have failed to produce the loading position of transformer before or after the accident rather they give a generic statement that it was not possible to take the loading position during rains. It was evident from the site that the transformer neutral and its body are freshly and commonly earthed/grounded. People of the area also apprised the IC that the Licensee's staff has done this work 2-3 days before the arrival of IC. Hence, it can be said that at the time of accident, there was no proper earthing of the LT system which resulted in victim's electrocution. Had the earthing/grounding of whole LT network been done properly prior to the occurrence of accident, there would have been a chance to avoid this tragic accident.

The fatal accident occurred in violation of 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 4 of Design Code of Distribution Code, Clause 7.21.2 of Power Safety Code, and Chapter 12 of Consumer Service Manual.

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13.5 Name of the Victim: Mr. Kashif (Public Man) Date of Accident: July 05, 2023 at 12:40 PM Place of Accident: Sarfraz Nagar Sub-Division, Phool Nagar Division.

The site of the accident is a street in Pakka Talab, Phool Nagar over which lengthy PVCs are passing, in order to supply electricity to the nearby houses from a 200KVA PMT which is installed in the same street. On the day of accident, there was heavy rain/wind storm in the area and rainwater was accumulated in the street which was witnessed by the IC even at the time of visiting the site. The victim namely Mr. Kashif was crossing the street on his bicycle through the stagnant water, lost his balance, fell down in the water, and died. Later, the nearby people picked the body of the victim from the water and shifted him to the hospital where he was declared dead.

A Sanitary Worker (Woman) working in a nearby hospital informed the Safety Inspector of the Licensee during its internal inquiry that she saw the broken PVC in the water at the time of accident. The same was told by the Safety Inspector of the Licensee to IC during interviews with locals.

During visit to the site, it was witnessed by the IC that there were lengthy PVC cables that were feeding the nearby houses. The cables were in dilapidated conditions and there were fresh joints. This supports the version of a sanitary worker (woman) that one of the PVC cables was broken due to windstorm and remained in the stagnant water and current induced in it. The same was also admitted by the Licensee official i.e., Safety Inspector. Had the PVC cables been properly laid down with standard sizes, there would have been a chance to avoid breaking of cables and subsequently saving precious life. Further, it came to the knowledge of IC that a trolley-mounted transformer was installed at the incident site since last 07 months, which is completely violation of the Licensee's own SOP. During visit, IC noted with concern that the LT system was improper in terms of roar fuses and lack of earthing/grounding. Certainly, the condition of LT system along with transformer prior to the occurrence of incident may be the same as witnessed during the site visit, which appears to be another cause of the accident. After the breakage of PVC Cable and its touching with the ground, the fuses of the transformer didn't blow and the accumulated water remained electrically charged. This establishes that the trolley-mounted transformer, which was feeding that LT system did not have proper fuses at the time of accident. The same was witnessed by IC during the visit to the site, that even after the accident, improper roar fuses were installed at the transformer;

The fatal accident occurred in violation of 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 DDC 3 of Design Code of Distribution Code, Clause PR 1 of Protection System Requirements of Distribution Code, and Chapter 12 of Consumer Service Manual

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13.6 Name of the Victim: Mr. Saifullah (Public Man) Date of Accident: July 06, 2023 at 10:00 AM Place of Accident: Renala Rural Sub-Division, Renala Khurd Division.

The accident site is the roof of the victim's neighbor's house over which the 11 kV Kund Bohar Feeder is crossing in order to provide electric supply to nearby tubewell. On the fateful day i.e. July 06, 2023, two kids namely Saifullah (the victim) and Asad Ullah, aged between 9-10 years, were playing on the roof of their home located at village Bama Bala. The vertical clearance of 11 kV line of Bohar feeder is around 5-6 feet with respect to the roof. While playing they both jumped to the roof of their neighbor's house which is adjacent to their own home. Mr. Asadullah threw a piece of TV/telephone cable in the air which unfortunately touched with the 11kV line and resulted in his electrocution. Meanwhile, Mr. Saifullah tried to pull off his brother, however, he received an electric shock too, which led to his death later.

During the site visit, IC interviewed the victim's father, who stated before the accident, he tried his best to contact the concerned person of the Licensee to get rid of these HT wires from his rooftop. He met with the area Lineman Mr. Ashraf (LM-I) along with other community members to resolve the problem of shifting of 11kV line. But Mr. Ashraf demanded Rs.100, 000 as bribery, to rectify the issue. Later on, the matter was settled down at Rs. 70,000 to remove the wires from roof top. But even then lineman did not proceed further.

During the visit to the site, it was observed by IC that the vertical clearance of the 11kV line with respect to the roof of the house is 5-6 feet which is against the standard SOPs as the same was admitted by XEN (Op) and SDO (Op) in their statements that Standard vertical clearance should be 20 feet from the ground and 12 feet from the rooftop. It is further added that the Licensee in its own inquiry report has mentioned that the vertical clearance at the time of accident was 4 feet which is very alarming. Had the clearance of 11kV line been made as per SOP, there would have been a chance to avoid this tragic accident. IC further observed that consumers of the area fulfilled their job as they approached the area lineman for re-routification of said HT line at the time of starting construction of their houses. However, the Licensee official failed to perform his duty and asked for some bribery which is very shameful act. This indicates that no work is done in the Licensee's territory without taking bribery even the rectification of serious safety hazards. It was the prime responsibility of the Licensee to relocate that HT line as per SOP by giving notices to the consumers well in time. However, the Licensee failed to do the same as it served notices after a lapse of more than two years which is against its own SOP. Further, as the consumers received notices, they approached the Licensee officials, but unfortunately, no timely action was taken which is the main cause of the accident.



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The fatal accident occurred in violation of 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, 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.

13.7 Name of the Victim: Mr. Khalid Bajwa (LM-I) Date of Accident: July 20, 2023 at 06:30 PM Place of Accident: Shadbagh Sub-Division, Badami Bagh Division.

The accident site is HT PCC Pole over which a line of 11 kV Delhi Gate – II feeder is passing which is emanating from 132 kV Badami Bagh Grid Station. On the day of accident i.e. July 20, 2023, the HT span of 11kV Dehli Gate feeder got broken and fell on the ground due to heavy rain/wind storm. Upon falling off the conductor on ground, the feeder got tripped. After that Mr. Khalid Bajwa (LM-I) (the victim) along with Mr. Muneeb Yousaf (ALM) patrolled the area to detect the fault and subsequently after locating the fault, he disconnected the jumpers from the nearby pole as per the instructions of Hafiz Shahid Mehmood (LS-I). After disconnecting the branch by the victim, the feeder was restored from the respective grid station. However, the supply of the area fed through that branch was cut off.

Later, at around 4:00 PM, the victim along with Mr. Muneeb Yousaf (ALM) went to the site to attend to the breakdown issue upon the directions of Hafiz Shahid Mehmood (LS-I), however, they were unable to perform the work due to heavy rainfall. The rain stopped at around 05:45 PM, and thereafter the victim himself started work by climbing up the pole in order to reconnect the broken branch of the HT conductor. While connecting the same, he received a severe electric shock and died on the spot. According to the Licensee officials, when he was pulling the conductor to adjust the sag of the branch, the conductor touched with the energized part of the 11kV span from where the jumpers were disconnected, which resulted in his electrocution.

As per statements of XEN and SDO, the violation of Safety SOP caused the occurrence of the accident. i.e., no PTW was taken by the Licensee officials to execute the work on the HT line. If the PTW would have been taken, this accident could have been avoided. Moreover, the LS incharge did not supervise the work, which is again a clear violation of SOP as he was duty-bound to be available at the site and ensure all safety precautions before the start of work. The XEN/SDO were found completely unaware of the operational matters being run in their offices. This shows their loose control on field staff. This also indicates that sub-divisional matters are being dealt by line staff on their own. A haphazard and hasty manner was adopted by the victim to perform the task as he was working illegally without taking PTW, with the verbal consent of LS. The ALM was also bound to prevent the victim from working without PTW and inform LS/SDO in case the lineman did

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not agree, however, he also failed to perform his duty. It is pertinent to highlight that the Licensee's own inquiry report reveals that the accident occurred due to clear violation of safety SOPs as the victim was working without PTW and the concerned LS did not supervise the work;

The fatal accident occurred in violation of 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 and Clauses PSC 1, PSC 2 & PSC 6.3 of Power Safety Code.

13.8 Name of the Victim: Mr. Zubair and Mr. Faizan (Public Persons) Date of Accident: July 19, 2023 at 03:40 PM Place of Accident: DHA East Sub-Division, DHA East Division.

The accident site is an LT Steel Structure in a narrow street of the village Charrar, fed through a 200 KVA transformer, which came under the operational jurisdiction of the DHA East Sub-Division of the Licensee. On July 19, 2023, at 03:40 PM, there was heavy rainfall in Lahore due to which rainwater accumulated in the said street. During the rain three children namely Mr. Zubair (Age 8 Years), Mr. Faizan (Age 12 Years), and Mr. Zaheer (Age 13 Years) while playing in the street, came in contact with the aforementioned LT Steel Structure which contained a leakage current due to flow of current in LT conductor passing over the said Structure. As a result, they all got electrocuted. Unfortunately, Mr. Zubair and Mr. Faizan died on the spot, whereas, Mr. Zaheer survived but he received severe injuries and was shifted to the hospital.

It is important to highlight here that earlier there was ANT Conductor on the LT Span, and two days before the occurrence of incident, the activity of reconductoring the said line was carried out from ANT to WASP by the Construction department of the Licensee, under the deposit work scheme of NA-123. During the reconductoring, the construction staff fixed the WASP conductor in a spool insulator along with a bare conductor using the conductor binding. During this process, binding strand came into contact with the D-strap of the insulator. As a result, the current flew from the D-strap to the structure which later caused the electrocution of victims.

During the site visit, IC interviewed one of the victim's father Mr. Rafaqat Ali (0324-2200665), and took his statement, who submitted that the children died in energized rainwater, due to the negligence of the Licensee. He further pleaded before the IC to take strict actions against the Licensee. He also requested for compensation as they belong to poor family.

The victims (two children) received severe electric shock and died while playing in the street filled with rainwater. While playing they came into contact with a nearby LT Steel Structure installed in the same street which contained a leakage current. The current produced in the structure due to the product of metallic d-strap that came

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into contact with conductor binding which was used to fix the conductor with spool insulator. During the visit to the site, it was observed that the LT Structure which led to the occurrence of the accident was not earthed and it was admitted by all the Licensee officers/officials that the same was not earthed prior to the occurrence of accident. If the earthing of the said structure was done properly, there would have been a chance to save precious human lives. Moreover, this situation shows the poor condition of the Licensee's distribution system which means there is no concept of preventive maintenance to rectify such types of safety hazards. Two days before the occurrence of incident, the Construction staff executed the reconductoring of the line. The work was done by the Construction team was below-par and substandard. They did not cross-check the poles for any leakage current with appropriate testing devices. Therefore, clear negligence and supervisory lapses on the part of the Construction team were observed. The Operation department was unaware of its operational responsibilities, as its officers/staff did not bother to monitor/supervise the work or to check it after its completion and restore the supply. It is surprisingly noted that no one from the operation department was available at the site during the work carried out by the construction department. The SDO (Op) and other line staff were only concerned about the issuance and cancellation of PTWs. The Operational staff canceled the PTW without informing the same to Construction staff, which is a major violation of the Safety SOP. The operation team restored the supply without proper checking and taking over the system after the work carried out by the construction department which is serious lapse on part of the operation subdivision/division. Similarly, the construction staff also did not hand over the system after completion of work and left the site which is also against the SOP. All these negligences led to the occurrence of this tragic accident. A clear communication gap and a haphazard and Hasty manner was adopted by both construction and operation departments while carrying out the work.

The fatal accident occurred in violation of 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, Clauses DDC 3 & 4 of Design Code of Distribution Code, Clause PR 1 of Protection Requirements of Distribution Code, Clauses PSC 1, PSC2, PSC6.3, Clause 7.21.2 of Power Safety Code, and Chapter 12 of Consumer Service Manual.

14. The analysis of above incidents further shows following violations on the Licensee's part:

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;

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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.

LACK OF EARTHING/LEAKAGE OF CURRENT/DESIGN FAULT/ DETERIORATED DISTRIBUTION SYSTEM/IMPROPER PROTECTION SYSTEM/DESIGN FAULT/LESS CLEARANCE OF HT LINES/ LACK OF SAFETY MEASURES/CULTURE.

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

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;



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i. within the safety limits as included in the approved Safety Code of the Licensee or the relevant provisions of the Performance Standards (Distribution);

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.

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.



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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.
- 7.21.2 Install and maintain earthing/grounding system (i.e., equipment, exposed steel Structure/pole along with stay wire).

<u>Consumer Service Manual</u> Chapter 12 Safety and Security 12.2 Obligation of LESCO

LESCO 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:

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- 12.2.1 Operation and maintenance of LESCO distribution system /Network shall be carried out only by the LESCO authorized and trained personnel.
- 12.2.2 LESCO 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.
- 12.2.4 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 LESCO laid down procedures.
- 15. The licensee has submitted that as confirmed by the Pakistan Meteorological Department's Monthly Climate Summary of July 2023, the Lahore City's rainfall for that month was significantly above average, making it the 9th wettest July in the past 63 years. On the wettest day, Lahore, recorded an unprecedented 206.0 mm of rainfall, making it the wettest place with a monthly total of 668.7 mm. These figures underscore the exceptional and unforeseeable nature of the weather events during that month. The fact that these accidents clustered on the aforementioned consecutive days, in conjunction with this exceptional weather data, serves as compelling evidence that these accidents were primarily a result of natural weather conditions.

The Authority has considered the submissions of the Licensee and is of the considered opinion that the Licensee should have made some preparedness to tackle/face such heavy rain, however, no such preparedness has been witnessed despite the prior predictions by the MET department. The Licensee cannot be absolved from its responsibilities and liabilities even due to excessive rains in its territory and the eyes cannot be closed upon the Licensee's sheer negligence which led to such casualities. Additionally, it's worth considering that while the weather may have contributed to the accidents, other factors such as infrastructure vulnerabilities, inadequate maintenance, operational issues, less clearance of lines, and non-compliance with safety SOPs within the Licensee's control have also played a role in the occurrence of these fatalities. Therefore, solely attributing the accidents to natural weather conditions seems not justified. Furthermore, the weather conditions during July 2023 were indeed exceptional, however, the Licensee failed to apply for force majeure within the specified timeframe as mandated by law.

- 16. The Licensee has submitted that the following actions are being taken by the Licensee to prevent fatal accidents:
 - i. Awareness campaign for General Public.
 - ii. Strict implementation of Safety SOPs & PTW
 - iii. Behavior-based trainings for Line Staff.
 - iv. Hazard Identification and Removal for Safe System

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The Authority after analyzing the submissions of the Licensee observes that despite the aforementioned efforts by the Licensee, fatalities are occurring, and people are dying. If the efforts of the Licensee are assumed to be sufficient, then there would have been zero accidents in its territory, however, eleven (11) fatal accidents (8 Employees and 3 Public Persons) occurred in FY 2022-23 in its territory, and twelve fatalities occurred in a single month of July 2023. Therefore, the efforts taken by the Licensee are not satisfactory.

Moreover, the Licensee has tried to submit justifications that it is not the Licensee's fault in the occurrence of the fatalities, however, detailed illustrations along with concrete evidence have been given in the preceding paragraphs which consequently proves that the responsibility of the fatalities is at the Licensee's end.

17. The above incident reveals that the Licensee has failed to discharge its statutory obligations to maintain safety standards and ensure that distribution facilities are constructed, operated, and maintained in a safe manner. Therefore, the Licensee has contravened the above-stated provisions of the NEPRA laws.

Decision

- 18. Keeping in view the submissions of the Licensee, 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 Show Cause Notice dated 23.10.2023, and imposed a fine of Rs. 23,000,000/- (Twenty-three Million) on the Licensee on account of fatal accidents (01 employee and 08 public) occurred during monsoon spells in July 2023, on account of failure to comply with 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, Clauses DDC 3 & 4 of Design Code of Distribution Code, Clause PR 1 of Protection Requirements of Distribution Code, Clauses PSC 1, PSC2 and PSC6.3 of Power Safety Code.
- 19. 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 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.
- 20. The Licensee is directed to pay the fine amount of Rs. 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

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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.

21. This order shall not prejudice any other rights and remedies of the families of the victims which may be available to them under the law.

AUTHORITY

Rafique Ahmed Shaikh Member (Technical)

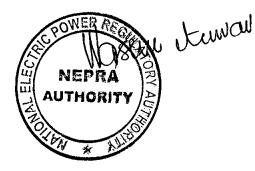
Engr. Maqsood Anwar Khan Member (Licensing)

Mathar Niaz Rana (nsc) Member (Tariff)

Amina Ahmed Member (Law)

Waseem Mukhtar Chairman

<u>15t 09</u>, 2024 Dated <u>Au</u>



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