



Registrar

National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/DG(M&E)/LAD-05/ 14815

September 20, 2024

SUBJECT: ORDER OF THE AUTHORITY IN THE MATTER OF SHOW CAUSE NOTICE
ISSUED TO LESCO UNDER REGULATION 4(8) AND 4(9) OF NEPRA (FINE)
REGULATIONS, 2021, ON ACCOUNT OF FAILURE TO EXECUTE
EARTHING/GROUNDING OF HT/LT POLES/STRUCTURES IN ITS SERVICE
TERRITORY

Please find enclosed herewith, the Order of the Authority along with Annex-I (total 10 page) in the subject matter for information and compliance.

Enclosure: As above

(Syed Zawar Haider)



National Electric Power Regulatory Authority

ORDER

**IN THE MATTER OF SHOW CAUSE NOTICE ISSUED TO LESCO UNDER
REGULATION 4(8) AND 4(9) OF NEPRA (FINE) REGULATIONS, 2021, ON
ACCOUNT OF FAILURE TO EXECUTE EARTHING/GROUNDING OF HT/LT
POLES/STRUCTURES IN ITS SERVICE TERRITORY.**

1. Lahore Electric Supply Company Limited (LESCO) (the "Licensee") was granted a Distribution License (No. DL/03/2023) by the National Electric Power Regulatory Authority (the "Authority") on 09.05.2023, 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. During the investigation conducted by NEPRA with respect to fatal accidents in DISCOs, it was observed that the distribution facilities of DISCOs such as poles/structures lack earthing/grounding which is one of the major causes of the occurrence of fatal accidents. The Authority while taking notice of such serious safety hazards directed the Licensee vide letter dated June 07, 2022, followed by reminder dated July 06, 2022, to submit the data pertaining to the total number of poles/structures, the number of poles/structures already earthed/grounded, and number of the poles/structures to be earthed/grounded. Accordingly, the Licensee submitted the required information vide its email dated July 21, 2022.
3. The Authority after carefully examining the data submitted by the Licensee called the CEO of the Licensee vide letter dated September 26, 2022, for a meeting/hearing via Zoom at NEPRA Head Quarter with the direction to come up with a comprehensive plan along with specific timelines pertaining to the execution of earthing/grounding of HT/LT poles/structures in its service territory, in order to avoid fatal accidents in the future. The Authority also directed that the Licensee shall submit the response to specific queries/questions including, SOP of the Licensee pertaining to earthing/grounding of the poles/structures, scope of earthing in the contracts at the time of their installation, checking of poles/structures grounding at the time of handing over of the system from construction to operation departments, tackling these hazards in the absence of proper earthing/grounding, and the time required to execute the earthing/grounding of 100% of the remaining poles/structures.
4. Accordingly, the said meeting/hearing was held on October 04, 2022, wherein, the Authority directed the Licensee to submit complete details of PCC poles and steel structures with and without earthing/grounding. The Authority further directed the Licensee to submit a comprehensive plan of the execution of earthing/grounding of poles & structures along with concrete timelines. Moreover, the Authority also desired

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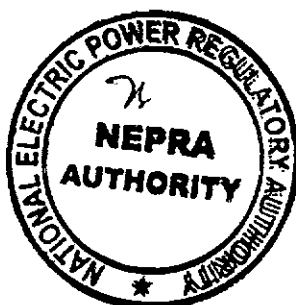
that the Licensee should provide a mechanism on how they will efficiently perform the execution task within the minimum possible time. A letter dated October 28, 2022, containing all above directions, followed by Reminder letters, and various telephonic calls was also issued to the Licensee.

5. In addition to above, NEPRA Regional Office, Lahore, also reported and affirmed that in past contracts, the scope of earthing/grounding was only included in Steel Structures. However, in the latest contracts, the scope of earthing/grounding was included in both the Steel Structures and PCC poles and the same is present in the field too. The Regional Office further highlighted that Steel Structures installed in the past had earthing/grounding, however, the same has become ineffective due to deterioration and change of moisture contents at the sites over the passage of time. The same was also endorsed by the Licensee in its submitted replies.
6. In response to NEPRA's letter dated October 28, 2022, the Licensee vide its letter dated December 02, 2022, submitted its response against the aforementioned directions & queries of the Authority. The Licensee submitted that it is committed to earth its distribution system i.e., HT/LT structures/poles and transformer's substations within five financial years, and the Licensee has earmarked certain amount of funds solely dedicated to this purpose. Moreover, the Licensee also provided a plan to execute earthing grounding of its HT/LT poles/structures, according to which, 84,400 poles/structures will be earthed/grounded per year. The tentative timelines to complete the said work will be five years (FY 2022-2023 to FY 2026-2027). The detail of poles/structures already earthed or to be earthed as submitted by the Licensee is as under:

Total Number of HT/LT Poles/ Structures	Details of HT Poles/Structures			Details of LT Poles/Structures			Total Number of HT/LT Poles/ Structures have Earthing	Total Number of HT/LT Poles/ Structures to be Earthed
	Total Number of HT Poles/ Structures	HT Poles/ Structures have Earthing	HT Poles/ Structures to be Earthed	Total Number of LT Poles/ Structures	LT Poles/ Structures have Earthing	LT Poles/ Structures to be Earthed		
669,753	347,227	130,147	217,080	322,526	117,603	204,923	247,750	422,003

7. The submissions of the Licensee were carefully analyzed and it was noted with concern that approximately 7,000 poles/structures will only be grounded per month, which does not seem sufficient. Despite facing the same challenges by the Licensee as compared to other DISCOs, the performance of the Licensee appears below par, which shows non-seriousness towards inculcating a safety culture by the Licensee in its service territory.
8. In this regard, NEPRA vide its letter dated January 17, 2023, directed the Licensee to revisit its plan for earthing/grounding of all remaining poles within the minimum possible time. In response, the Licensee vide its letter dated February 13, 2023, submitted that the earthing of the HT/LT poles/structures is being carried out solely by the Licensee staff and manpower. The Licensee further submitted that during the month of Dec-Jan 2023, 6431 HT poles/structures and 8819 LT poles/structures have been earthed/grounded. Moreover, the Licensee is trying its best to utilize its existing resource up to its full potential in order to make its system as safe possible.

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9. Keeping in view the aforementioned submissions of the Licensee, it was noted that the Licensee has not revised its plan, and execution of plan on its part was still unsatisfactory. Moreover, the Licensee was giving generic statements that it is trying its best to utilize its existing resource up to its full potential, however, the on ground performance on its part was unsatisfactory. The Licensee should have understood that the operation of poles/structures without earthing/grounding in the field is highly dangerous and can lead to the occurrence of fatal accidents at any time.
10. Therefore, the Authority decided to initiate legal proceedings against the Licensee under NEPRA Fine Regulations, 2021.

Explanation:

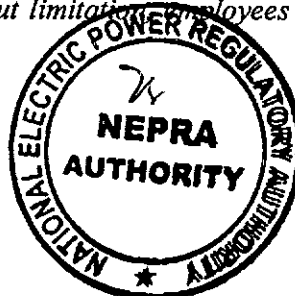
11. In view thereof, an Explanation was served to the Licensee under Regulation 4(1) and 4(2) of NEPRA (Fine) Regulation, 2021, vide NEPRA's letter dated April 27, 2023, on account of violation of Performance Standards, Distribution Code, Power Safety Code, and other applicable documents.
12. The Licensee vide its letter dated June 27, 2023, submitted its response. Furthermore, in order to satisfy the requirement of law, a public hearing in light of Regulation 4(5) of NEPRA (Fine) Regulations, 2021, was held on August 17, 2023, wherein, CEO of the Licensee along with his team participated and made submissions.

Show Cause Notice

13. The Authority considered the submissions of the Licensee and after detailed deliberations rejected the response submitted by the Licensee against the Explanation served upon it and directed to issue Show Cause Notice (SCN) to the Licensee under Regulation 4(8) & (9) of the NEPRA (Fine) Regulations, 2021 on account of violation of Performance Standards, Distribution Code, Power Safety Code, and other applicable documents.
14. Accordingly, NEPRA vide letter dated December 14, 2023, issued a SCN to the Licensee upon failure to execute earthing/grounding of HT/LT poles/structures in its service territory. The salient points of the served 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 distribution and transmission of electric power, including safety; and
4. **WHEREAS**, pursuant to Rule 4(g)(ii), Overall Standards 7-Safety of NEPRA Performance Standards (Distribution) Rules:

"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."

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- 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."

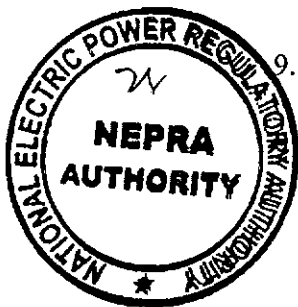
- "...The earthing of a distribution transformer, the neutral, and body of the transformer should be connected to ground rods as per IEC and PSI Standards Design Specifications. Earthing of Consumer Service and its meter shall be as per design standards adopted by the Licensees; and consistent with IEC, 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."*

- "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:*

- "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 DISCO laid down procedures."

9. ***“WHEREAS, during the investigation conducted by NEPRA with respect to fatal accidents in DISCOs, it was observed that the distribution facilities of DISCOs particularly HT/LT poles/structures lack earthing/grounding***



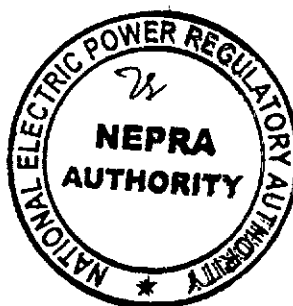
which is one of the major causes of the occurrence of fatal accidents. The Authority took notice of such serious safety hazards and directed to obtain data from all the DISCOs including the Licensee, with respect to the total number of HT/LT poles/structures, the number of HT/LT poles/structures already earthed/grounded, and the number of HT/LT poles/structures to be earthed/grounded. The same was obtained vide Licensee's letter dated July 21, 2022, and the detail is as under:

Total Number of HT/LT Poles/ Structures	Details of HT Poles/Structures			Details of LT Poles/Structures			Total Number of HT/LT Poles/ Structures have Earthing	Total Number of HT/LT Poles/ Structures to be Earthed
	Total Number of HT Poles/ Structures	HT Poles/ Structures have Earthing	HT Poles/ Structures to be Earthed	Total Number of LT Poles/ Structures	LT Poles/ Structures have Earthing	LT Poles/ Structures to be Earthed		
669,753	347,227	130,147	217,080	322,526	117,603	204,923	247,750	422,003

10. **WHEREAS**, a hearing/meeting on the matter was also held on October 04, 2022, wherein the representatives from all DISCOs including CEO LESCO participated. During hearing/meeting, the Authority directed all DISCOs along with the Licensee to submit complete details of PCC Poles and steel structures with and without earthing/grounding. The Authority further directed the Licensee to submit a comprehensive plan of the execution of earthing/grounding of poles/structures along with concrete timelines. Moreover, the Authority desired that DISCOs should provide a mechanism on how they will efficiently perform the execution task within the minimum possible time, however, the Licensee has failed to do so; and

11. **WHEREAS**, vide NEPRA's letter dated October 28, 2022, followed by a Reminder dated December 02, 2022, the Licensee was directed to submit the said information. In response, the Licensee vide its letter received in NEPRA on December 06, 2022, submitted its reply, wherein, the Licensee inter alia, stated that it is committed to earth its distribution system i.e., HT/LT structures/poles and transformer's substations within five financial years and the Licensee has earmarked a certain amount of funds solely dedicated to this purpose. Moreover, the submitted plan by the Licensee to execute earthing/grounding of its HT/LT poles/structures, indicates that 84,400 poles/structures will be earthed/grounded per year. The tentative timelines to complete the said work will be five years (FY 2022-2023 to FY 2026-2027). In this regard, it is noted with concern that approximately 7,000 poles/structures will only be grounded per month, which does not seem sufficient to execute the task on a war footing basis. Therefore, the performance of the Licensee appears below par as compared to some other DISCOs, who have committed to ground 40,000 to 50,000 poles/structures per month. This shows non-seriousness towards inculcating a safety culture by the Licensee in its service territory; and

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12. **WHEREAS**, vide NEPRA's letter dated January 17, 2023, the Licensee was again directed to submit its revised plan in the light of observations highlighted by NEPRA. However, the response from the Licensee has not yet been received, despite the lapse of more than two months. Non-submission of response by the Licensee indicates that it does not have any plan to execute this important task. The Licensee is only consuming time and delaying the implementation of the project as till date the on-ground performance of the Licensee is zero. The Licensee should have realized that operation of poles/structures without earthing/grounding in the field is highly dangerous and can lead to the occurrence of fatal accidents at any time; and
13. **WHEREAS**, it is a matter of record that despite repeated and continuous correspondence, the Licensee has failed to produce any concrete plan indicating specific timelines for executing the earthing/grounding of HT/LT poles/structures on a war footing basis. 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, Clause 4 of Design Code & Clause 1 of Protection Requirements of the Distribution Code and Clause 12.2 of Chapter 12 of the Consumer Service Manual; and"
10. **WHEREAS**, the Licensee was given fifteen (15) days to either admit or deny the occurrence of the said violations and submit a reply against the aforementioned Explanation, failing which it shall be presumed that the Licensee has nothing to say in its defense and the Authority shall proceed based on available record in accordance with NEPRA Act, Rules, and Regulations; and
11. **WHEREAS**, the Licensee submitted its response vide its letters dated June 27, 2023, against the Explanations served, and a hearing in the matter was also held on August 17, 2023. Consequently, the Authority after detailed deliberations concluded that the Licensee has failed to provide any satisfactory reply to the Explanation served to it; and
12. **WHEREAS**, the Licensee has failed to satisfy the Authority with its replies and prima facie, has committed the violations 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 & Clause 1 of Protection Requirements of the Distribution Code and Clause 12.2 of Chapter 12 of the Consumer Service Manual. Therefore, the Authority hereby rejects the response of the Licensee against the Explanation served, and an Order dated December 14, 2023, is attached herewith, mentioning the reasons of rejection; and"

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15. In response, the Licensee vide its letter dated March 06, 2024, submitted its reply. The salient points of the same are as follows:

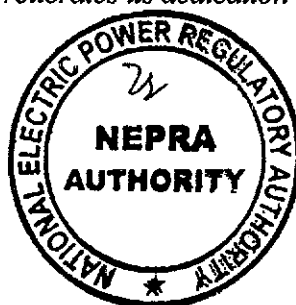
"In response to the previous explanation dated 12.06.2023, LESCO has duly submitted a comprehensive defense reply dated 27.06.2023, inclusive of a two-year execution plan for the earthing of HT/LT poles/structures. This submission was made in accordance with the directives as desired by the former Chairman of NEPRA during the virtual meeting. Regrettably, it has been conveyed that our detailed response and execution plan were deemed unsatisfactory by the NEPRA authority.

While LESCO acknowledges NEPRA's meticulous outlining of rules and regulations in the show cause notice, LESCO deem it necessary to reiterate these regulations in its response. This serves to underscore LESCO's unwavering commitment to compliance and emphasizes that any deviations from established standards were not intentional, nor indicative of systemic or operational failures. LESCO intends to demonstrate its ongoing dedication to safety and compliance with NEPRA's regulations.

However, before drawing any conclusions, LESCO requests the humble consideration of the following submissions:

- A virtual meeting with NEPRA officials on the matter was convened on 02.02.2024, via Zoom, where the primary agenda was the critical issue of earthing HT/LT steel structures within the LESCO territory.*
- During the meeting, NEPRA Authority emphasized the importance of implementing a revised plan to prioritize the earthing of these HT/LT steel structures. It was mutually agreed that the above figures/statistics would be frozen at this level. In the first phase, NEPRA mandated that 77,121 LT steel structures and 73,362 HT steel structures must be properly earthed by the end of June 2024. To meet this target within the stipulated timeframe, LESCO accelerated its efforts and allocated funds of Rs. 137.120 million for the procurement of earth rods on a war-footing basis. It is also noteworthy that the installation of earthing on HT/LT steel structures has outsourced at the operation circles level. Furthermore, the earthing of HT/LT poles/structures is being ensured at a 100% rate in new projects.*
- In the second phase, LESCO intends to execute the earthing of the remaining 173,855 HT/LT PC and Spun poles by the end of December 2024.*
- It was also decided that NEPRA will closely monitor the execution through monthly progress meetings/reports.*
- In light of the above, LESCO respectfully requests the NEPRA to consider LESCO's unwavering commitment, notable progress, and the challenges faced in executing the earthing/grounding of HT/LT poles/structures. LESCO assures you that we are diligently working to address this matter promptly and effectively.*
- It is crucial to acknowledge that LESCO operates with a keen understanding of the potential risks associated with the operations of poles/structures without proper earthing/grounding. LESCO reiterates its dedication to resolving this issue as a top*

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priority. The safety of its operations and the well-being of the communities LESCO serves are paramount to LESCO's mission.

- Therefore, LESCO earnestly requests NEPRA to consider LESCO's humble submission, taking into account its commitment to compliance, the substantial progress made, and the challenges faced. LESCO believes that a holistic view of its efforts will demonstrate sincerity in rectifying the situation. In light of this, LESCO kindly requests the discarding of the show cause notice issued to LESCO."

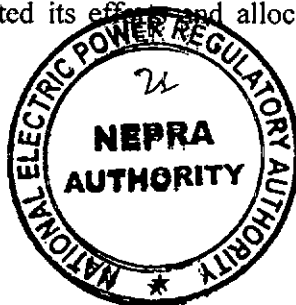
Hearing:

16. In order to fulfill the requirement of law, the Authority decided to provide an opportunity of hearing to the Licensee in light of Regulation 4(11) of NEPRA (Fine) Regulations, 2021, before finalizing the proceedings in the matter. Therefore, the hearing in the matter of SCN issued to the Licensee was held on May 13, 2024, wherein, CEO LESCO along with his team, made the following submissions:
- i. At present, a total of 324,338 HT/LT poles and structures are required to be earthed. In this regard, a meeting with NEPRA Team was held in February 2024, wherein, it was discussed that keeping in view the sensitivity of issue, steel structures will be given priority and will be earthed/grounded in first phase. Moreover, a target had been given by NEPRA team that 150,483 structures will be earthed/grounded till June 2024. Out of which 73,362 are HT structures and 77,121 are LT structures.
 - ii. It was further discussed that the earthing of LT structures are more important than HT, therefore, the LT structures will be prioritized. Accordingly, the 43, 887 LT structures were earthed by December 2023, whereas, from January to April 2024, 32, 258 have been earth/grounded. Further, 4,200 HT structures have also been earthed/grounded by April 2024.
 - iii. Due to Eid holidays and election campaign, the execution of earthing was not carried out in the month of April 2024. LESCO was pressurized to carry out the execution of LT proposals of MPAs/MMAs.
 - iv. Overall, 30% work has been accomplished. For remaining 70% LESCO is committed to complete the same as soon as possible.
 - v. For the completion of target of 150,483 HT/LT structures, it is requested to extend one-month time span from June to July 2024.
 - vi. For the earthing of PC poles, it is committed that the same will be completed by December 2024.

Analysis/Findings:

17. The Licensee has submitted that in the light of virtual meeting with NEPRA officials, the Licensee's revised its plan according to which, in the first phase, 77,121 LT steel structures and 73,362 HT steel structures shall be earthed by the end of June 2024. The Licensee has also submitted that in order to meet this target within the stipulated timeframe, the Licensee accelerated its efforts and allocated funds of Rs. 137.120

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million for the procurement of earth rods on a war-footing basis. Moreover, the installation of earthing on HT/LT steel structures has outsourced at the operation circles level, and, the earthing of HT/LT poles/structures is being ensured at a 100% rate in new projects. In addition to above, in the second phase, the Licensee intends to execute the earthing of the remaining 173,855 HT/LT PC and Spun poles by the end of December 2024. During the meeting, it was also decided that NEPRA will closely monitor the execution through monthly progress meetings/reports.

The Authority has considered the submissions of the Licensee and is of the view that M&E team of NEPRA convened a meeting with the Licensee Officials to review the progress of the execution work of the subject task rather than agreeing on any number and timeline. Even the NEPRA team emphasized the completion of the task as early as possible. It is pertinent to highlight here that, the Licensee earlier submitted a five-year execution plan for earthing/grounding of its remaining poles/structures i.e., 422,003. The same seemed unrealistic as the time frame proposed by the Licensee was irrational keeping in view the sensitivity of the issue. Therefore, NEPRA criticized the same and raised some observations to execute the task within minimum possible time.

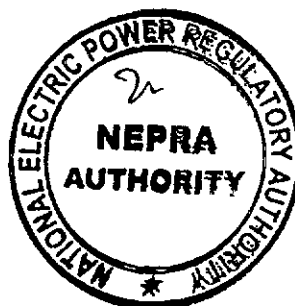
Despite the categorical directions to the Licensee, it did not submit any firm numbers with respect to the reduction of timelines by increasing the number of poles/structures to be executed per month. Moreover, the Licensee was directed to submit monthly progress reports of the execution task, however, it failed to submit any single progress report which shows its commitment to eliminate this serious safety hazard which is leading to fatal accidents on a frequent basis.

18. It is worth mentioning that five fatalities occurred in the Licensee's territory in July 2023, solely due to lack of earthing or deterioration of earthing, and afterward, still fatalities are occurring on a frequent basis. During hearing, the Licensee submitted that only 30% of the work has been completed which indicates the non-seriousness of the Licensee toward the removal of such serious safety hazards and subsequently compliance with the Authority's directions.

19. **Decision**

- i. After due deliberations and taking into account the submissions/arguments made by the Licensee during the hearing and in light of the NEPRA Act, NEPRA (Fine) Regulations, 2021, and other applicable documents, the Authority is of the considered opinion that the Licensee has failed to provide any satisfactory reply to the Show Cause Notice served to it, therefore, the Authority hereby decides to impose a fine amounting to PKR 10,000,000/- (Ten Million) on the Licensee due to its failure pertaining to 100% execution of earthing/grounding of its HT/LT poles/structures in its service territory. The Authority hereby further directs the Licensee to earth/ground all remaining (100%) steel structures within three months and PCC Poles within one year. Failure to comply with the directions of the Authority may leads towards further penalty on the Licensee which will be decided after the completion of specified timelines.

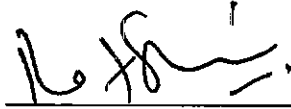
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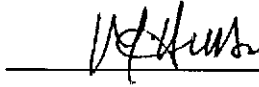
- ii. The Licensee is directed to pay the fine amount of PKR 10,000,000/- (Ten Million) in designated bank of the Authority within a period of 15 days from the date of issuance of this order and forward a copy of the paid instrument to the Registrar Office for information, failing which the Authority 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

Rafique Ahmed Shaikh
Member (Technical)



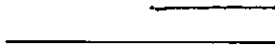
Engr. Maqsood Anwar Khan
Member (Licensing)



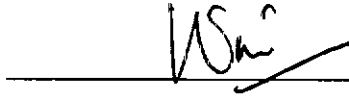
Mathar Niaz Rana (nsc)
Member (Tariff & Finance)

DID NOT ATTEND

Amina Ahmed
Member (Law)



Waseem Mukhtar
Chairman



Dated September 20, 2024

