



**Registrar**

# **National Electric Power Regulatory Authority**

## **Islamic Republic of Pakistan**

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No. NEPRA/DG(M&E)/LAD-02/ *S626*


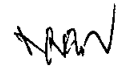
April 26, 2024

Chief Executive Officer,  
Islamabad Electric Supply Company (IESCO),  
Street No. 40, G-7/4,  
Islamabad

Subject: **Order of the Authority in the matter of Show Cause Notice Issued to IESCO on Account of Fatal Accidents occurred during FY 2022-23**

Please find enclosed herewith, the Order of the Authority (total 20 pages) in the subject matter for information and compliance.

Enclosure: As above

  
(Engr. Mazhar Iqbal Ranjha)  




# National Electric Power Regulatory Authority

## ORDER

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

1. Islamabad Electric Supply Company Limited (IESCO) (the "Licensee") was granted a Distribution License (No. 01/DL/2001 dated 02.11.2001) by the National Electric Power Regulatory Authority (the "Authority") for providing Distribution Services in its Service Territory as stipulated in its Distribution License, pursuant to section 21 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 ("NEPRA Act").

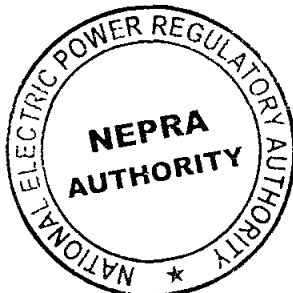
#### Background:

2. As per Rule 7 of NEPRA Performance Standards (Distribution) Rules, 2005 (PSDR-2005), all Distribution Companies (DISCOs) are bound to submit an Annual Performance Report to the Authority every year. Further, Form 9 of PSDR 2005 states that DISCOs shall report each and individual incident on immediate basis. Accordingly, the DISCOs submitted the data/information to NEPRA regarding electrical incidents resulting in death/permanent disability/serious injury to members of staff or the general public that occurred in FY 2022-23.
3. During the review of data submitted by the Licensee, it was revealed that a total number of twenty-four (24) fatalities (8 Employees & 16 Public Persons) occurred within the service territory of the Licensee. This figure illustrates a concerning picture regarding efforts taken by the Licensee to inculcate a safety culture in its service territory.

#### Summary of Inquiry Reports:

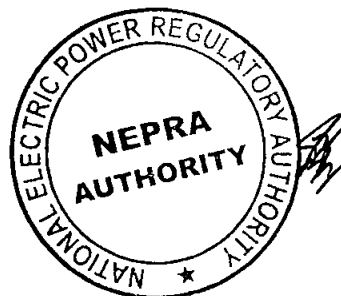
4. It is relevant to mention that after getting information pertaining to each and individual case, NEPRA carried out a thorough evaluation of all relevant records including the internal inquiry reports submitted by the Licensee itself against the twenty-four (24) fatalities that occurred during FY 2022-23. The summary of the same is as under:

Sr. No.	Name of Victim(s)	Date of Incident	Category	Incident Description	Responsibility / Reasons
1	Mr. Muhammad Nazakat (ALM)	14.07.2022	Employee	The victim was climbing on HT Composite pole of Dhuroghi Rajgan Feeder for rectification of fault. During the process, he fell down from pole, received head injuries, and died later.	IESCO • Lack of Safety Measures /Culture

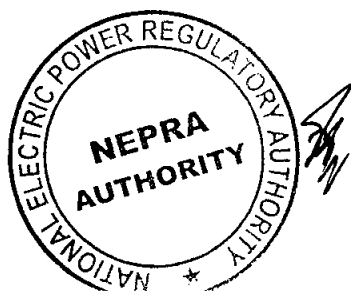


2	Ms. Pakeeza	19.07.2022	Public	The LT conductor was broken and fell down on the ground. In the meanwhile, somehow the victim (child girl) touched with the broken conductor and died on the spot.	IESCO <ul style="list-style-type: none"> <li>Deteriorated Distribution System</li> <li>Improper Protection System</li> </ul>
3	Mr. Muhammad Javed	14.07.2022	Public	In order to rectify the fault, a consumer hired a private person (the victim), who received electric shock while working on IESCO's system and expired on the spot.	Others
4	Unknown (Truck Driver)	23.07.2022	Public	A truck was overloaded with wheat straw (bhoosa). It was passing under 11 KV Balkasar Feeder and came in contact with the phase conductor. The driver reportedly tried to lift the phase conductor with the help of possibly a damp wooden stick. In the process, he received electric shock and died on the spot.	Others
5	Mr. Muhammad Ijaz	24.07.2022	Public	The victim received electric shock while stealing the dead HT conductor which touched nearby Bahria Enclave Feeder and died on spot.	Others
6	Mr. Azher Qadeer Sheikh	04.08.2022	Public	The victim got electrocuted on the roof of his house while accidentally touching steel rod (Approx 8 feet long) with 11 KV Eid Gah feeder.	IESCO <ul style="list-style-type: none"> <li>Less Clearance of HT lines</li> </ul>
7	Mr. Muhammad Pervaiz	08.08.2022	Public	At village Danaal, Lora Road, a wooden X-Arm of 11 KV Company Bagh Feeder got broken and clearance of 11 KV line reduced to dangerous level in hilly area. The Victim along with his two No. Cows came in contact with HT line and expired on the spot.	IESCO <ul style="list-style-type: none"> <li>Deteriorated Distribution System</li> <li>Improper Protection System</li> </ul>

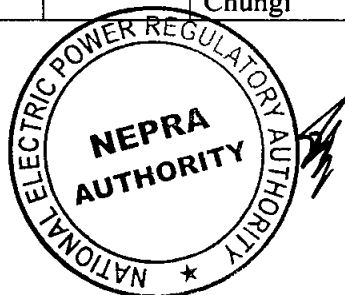
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8	Mr. Muhammad Awais Khalid (Daily Wager)	19.08.2022	Employee	The victim got electrocuted from LT, while installing NGSC transformer and died on spot.	IESCO • Lack of Safety Measures /Culture
9	Mr. Allah Yar (LM-I)	24.08.2022	Employee	The (LT) cable of the meter was snatched off from the meter. The victim was rectifying the cable of the meter standing on the ground, while doing so, the cable touched his body, got electrocuted and expired on the spot.	IESCO • Lack of Safety Measures /Culture
10	Mr. Arshad Khan	30.08.2022	Public	The victim was trying to steal HT conductor with cutter, received electric shock and expired on the spot.	Others
11	Mr. Maqbool Ahmed (ALM)	02.09.2022	Employee	The victim climbed on the structure pole for rectification of electricity complaint, reportedly may received electric shock and died on the pole top during the course of work.	IESCO • Lack of Safety Measures /Culture
12	Mr. Muhammad Nafees	12.09.2022	Public	The victim was unloading iron bars (Sariya) from the truck. While doing so the iron bar touched with nearby passing 11 KV Kotli Sattian Feeder, electrocuted, and expired on the spot.	Others
13	Mr. Muhammad Imtiaz	26.09.2022	Public	A person was illegally constructing his house under dismantled 66 KV line. During construction work at his residence, the masson Mr. Muhammad Imtiaz touched with nearby passing 11 KV line, electrocuted, and expired on the spot.	IESCO • Less Clearance of HT Lines
14	Mr. Amir (Private Electrician)	18.09.2022	Public	The victim was trying to restore the electricity supply of consumer Muhammad Afzal. The victim climbed on LT PC pole with the help of a ladder. During the rectification process, the	Others

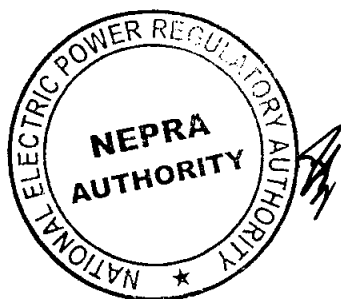


				victim received electric shock and expired.	
15	Mr. Adil Hussain	01.10.2022	Public	During work on road under 11 KV Maingen Feeder, the operator of Excavator touched the boom of machine with passing by 11 KV line. The victim was standing on the ground touching the machine at that time. Resultantly, electrocuted and expired on the spot.	Others
16	Mr. Taj Bahadur (LM-II)	01.11.2022	Employee	The victim was climbing on structure pole to install cross arm near Murree Road Bhara Kahu Islamabad. During the process of climbing he fell down from pole and died.	IESCO • Lack of Safety Measures /Culture
17	Mr. Muhammad Miskeen	12.11.2022	Public	A DSL Cable piece was hanging in the street, its other end was touching HT Jumper of the Transformer. The victim who was pushing tall metallic revolving swings (for playing of kids), which touched the hanging cable, resultantly electrocuted and expired on the spot.	IESCO • Design Fault • Improper Distribution System
18	Mr. Nawab Khan (ALM)	28.11.2022	Employee	The victim while attending the complaint on 50 KVA Transformer, electrocuted from transformer platform, burnt, fell down on the ground, received severe injuries, and died later.	IESCO • Lack of Safety Measures /Culture
19	Mr. Zahid Ali Khan	14.04.2023	Public	The victim was trying to release a stray kite entangled with 11 KV Soni Feeder under Pindi Gheb Sub Division with the help of an iron rod. Resultantly, electrocuted and expired on the spot.	Others
20	Mr. Muhammad Irfan	19.04.2023	Public	The victim while rectifying fault of HT line on Peerah Fatehal Feeder near Sargodha Chungi Talagang got	Others



				electrocuted, fell down on the ground, and received severe injuries.	
21	Mr. Muhammad Arsalan	23.05.2023	Public	The victim climbed up on the roof of the house got touched with the 11 KV Line passing over the roof, received electric shock and died on the spot.	IESCO • Less Clearance of HT Lines
22	Mr. Mumtaz Ahmed (ALM)	01.06.2023	Employee	The victim while rectifying fault of HT line on Peerah Fatehal Feeder near Sargodha Chungi Talagang got electrocuted, fell down on the ground, and received severe injuries.	IESCO • Lack of Safety Measures /Culture
23	Mr. Fayyaz	07.06.2023	Public	The victim got electrocuted from 11 KV Bagh Sardaran Feeder (opposite Govt. Girls Higher Secondary School Bagh Sardaran Rawalpindi) as he was trying to pick clothes hanging on 11KV line with the help of a metallic rod and expired on the spot.	Others
24	Mr. Sami Ullah (ALM)	12.06.2023	Employee	Mr. Noor Muhammad LS-I along with team were working on LV proposal of 50 KVA Transformer on 11 KV Miani feeder at Village Kahoot Kallar Kahar. Somehow HT came in contact (no PTW was availed) with working zone and Mr. Sami Ullah (ALM Contract), Mr. Sajid Hussain LM-II, and Mr. Nasir (ALM Contract) received electric shock. Mr. Sami Ullah (ALM Contract) Succumbed to his injuries and passed away, while the other two received minor injuries and have been discharged from the hospital.	IESCO • Lack of Safety Measures /Culture

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

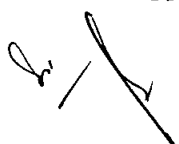
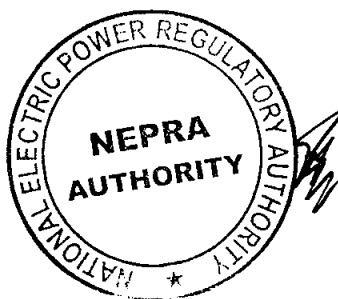
Description	Number of Fatalities	Responsibility	
		IESCO	Others
Employees	08	08	00
Public	16	06	10
<b>Total</b>	<b>24</b>	<b>14</b>	<b>10</b>

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

**Show Cause Notice:**

6. The Authority took notice of the aforementioned fatal accidents and decided to initiate legal proceedings against the the Licensee under NEPRA Fine Regulations, 2021. Accordingly, NEPRA vide its letter dated August 30, 2023, served a Show Cause Notice (SCN) to the Licensee on account of twenty four (24) fatalities (8 Employees & 16 Public Persons) that occurred during FY 2022-23 for violating Performance Standards, Distribution Code, Power Safety Code, and other applicable documents. The salient points of the said SCN are as follows

2. *WHEREAS, pursuant to section 21(2)(f) of the NEPRA Act, the Licensee is required to follow the performance standards laid down by the Authority for the distribution and transmission of electric power, including safety; and*
3. *WHEREAS, pursuant to Rule 4(g), of Performance Standards (Distribution) Rules, 2005, and clause SR 4 of Distribution Code, 2005:*
  - i. *All distribution facilities of a distribution company shall be constructed, operated, controlled and maintained in a manner consistent with the Distribution Code, Power Safety Code, Consumer Service Manual, and other applicable documents.*
  - 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.*

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

**PSC-1 Purpose:**

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

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

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

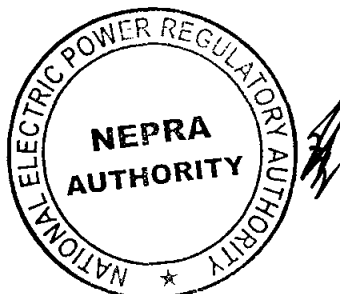
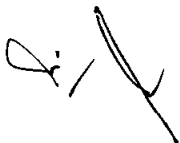
*The licensee shall promote a healthy & safe culture and provide all employees, contractors, and the people concerned and the public with a safe & healthy place to work. The Licensee shall ensure that safe working is integrated into every aspect and area of business. Moreover, safety culture shall be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

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

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

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

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

5. **WHEREAS**, according to Performance Standards (Distribution) Rules, 2005, the Licensee is obligated to submit the details of fatal accidents for employees as well as the general public that occurred in its service territory. Accordingly, in FY 2022-23, the Licensee has reported a total number of twenty four (24) fatalities (8 Employees & 16 Public Persons); and

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

7. The Licensee submitted its response vide its letter dated September 14, 2023, against the SCN served. The summarized points of the Licensee's response are narrated below:

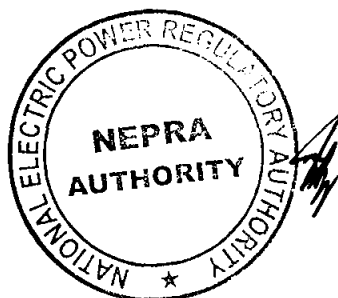
i. According to Performance Standards (Distribution) Rules 2005, and other instructions issued by the august Authority from time to time, IESCO submit details of fatal accidents for employees as well as the general public that occurred in its service territory and according to the data provided in FY 2022-23, a total number of 24 fatalities (8 Employees and 16 Public Persons) occurred in the jurisdiction of our company.

ii. While we understand and respect the views and grief of the august authority over the loss of human lives but also submit that we have taken all the possible steps for the elimination of fatal accidents to our own staff and the general public in compliance to the directives of the Authority. A detailed account of the reasons behind the fatal accidents to the employees and the general public and the steps taken by IESCO for this menace is given as under please:

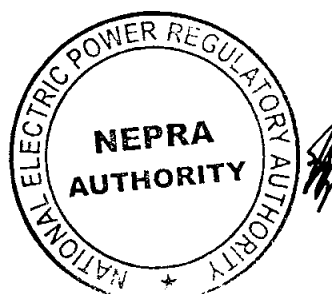
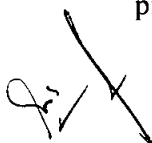
a. The details along with the brief report of 24 Nos of accidents that took place in the jurisdiction of IESCO are given in **Annex-A**. In the majority of the cases, accidents took place due to negligence on part of the victim. Specific causes are highlighted in the following text.

i. In cases of accidents to Mr. Javed, Mr. Amir, and Mr. Muhammad Irfan, the victims were private electricians who were doing illegal work on LT lines. In doing so, they got electric shock which led to their deaths.

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- ii. In fatal accident to the driver of truck, the investigations have revealed that the truck was overloaded with wheat straw (bhoosa) and was passing under 11 KV Balkasar Feeder and came in contact with the phase conductor. The driver tried to lift the phase conductor with the help of a damp wooden stick. In the process, he received electric shock and died on the spot.
- iii. Two unknown victims were trying to steal HT conductors from idle lines. In doing so, they received electric shocks and died.
- iv. The accident to child Pakeeza Bibi was caused by breaking of LT neutral conductor. The breaking of the conductor resulted in high impedance fault which the LT protection system failed to sense. The unfortunate child came in physical contact with the broken conductor before our staff could reach the spot of accident which is situated in rural area.
- v. Accidents to Mr. Azhar Qadeer Sheikh, Mr. Muhammad Imtiaz, and Mr. Muhammad Arsalan, were caused by illegal construction in the proximity of IESCO's lines. In these cases, notices were served to the consumers by the concerned operation subdivisions.
- vi. In case of fatal accident to Mr. Muhammad Pervaiz severe windstorm caused the breaking of wooden crossarm. The conductor did not touch with the ground to cause any fault current and operate the protection system at the grid station. The site of accident was in sparsely populated hilly area and the broken cross arm was not reported to our complaint office.
- vii. Mr. Muhammad Nafees met with fatal accident while he was loading iron bars in truck which was parked under HT line. He lifted the iron bar beyond safe limits and touched 11 KV line which led to his death.
- viii. Mr. Adil, a laborer of a private construction company Asad & Co while working on the road under 11KV Maingen Feeder. The boom of the Excavator Machine touched with HT line. The victim was standing on the ground touched the machine, got electrocuted and expired on the spot.
- ix. The fatal accident to Mr. Muhammad Miskeen took place from DSL cable. The cable operator was using IESCO poles and one of the cables got broken and came in physical contact with the HT jumper of transformer. The victim touched with the DSL cable which caused his death.
- x. Mr. Zahid Ali Khan received fatal electric shock while he was trying to release stray kite entangled with 11 KV Soni Feeder under Pindi Gheb Sub Division with the help of an iron rod. Resultantly, electrocuted and expired on the spot.
- xi. Mr. Fayyaz met with fatal accident due to his own fault as he was trying to pick clothes hanging on 11 KV line with the help of metallic rod.

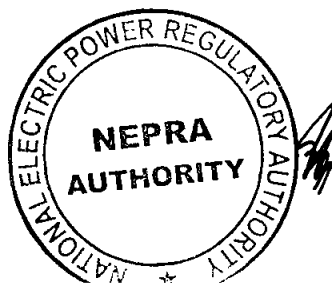


- b. With regards to the accidents to our own staff, strict disciplinary actions have been taken or are under process. We have developed a proper system of accountability in which no one goes unpunished for violation of safety SOPs. Operation Director IESCO has imposed severe penalties on about 95 officials/officers in the fiscal year 2022-23 alone. The details of those penalties are enclosed in Annex-B.
- c. A comprehensive program for the removal of hazardous points from our network is under process since January 2019. As of September 4, 2023, 10200 Nos. of hazardous points have been identified. Out of the total number of hazardous points, 8890 (about 87%) have been completed. The remaining points are delayed either due to right-of-way problems or are newly identified. The detail of the progress made in removal of hazardous points from our network is enclosed in Annex-C.
- d. In compliance to the instructions of NEPRA and as a part of its own initiatives, IESCO makes use of various media platforms and its own consumer electricity bills for disseminating information regarding prevention of public accidents.
- e. We impart trainings to all cadres of our field staff regarding safety of the staff and the general public. Our senior management and the Safety Directorate maintain close liaison with the Regional and Circle Training Centers for bringing improvement in the qualities of safety trainings. The Regional Training Center IESCO has conducted safety training sessions in which 1237 employees during the FY 2022-23 were trained. Details of these trainings are enclosed in Annex-D.
- f. For controlling accidents to its own staff, IESCO has started to procure PPEs. We have purchased high-quality Arc-flash suits for safety of our staff complying with USA's National Fire Protection Association (NFPA) Rule 70E, Safety Harness Belts complying with European Standards, Hook Type Digital Ammeters with remote current sensing features. Similarly, purchase orders for the purchase of Arc Rated face shields complying with NFPA Rule 70E, Class I Rubber Insulating Boots for line staff in rainy weathers conforming to European Standards have been issued. We are also procuring Class II PPEs for our grid staff and operational staff working underground in the ongoing fiscal years.
- g. There is an acute shortage of staff in all the DISCOs and the recruitment process has been stopped by the Ministry and the same is in the knowledge of the august Authority. The staff is often overburdened which is the main cause of workplace accidents in the power distribution companies. In order to reduce the stress over the aging staff we are also contemplating to introduce new machinery. Bucket Mounted Cranes have been supplied to the field offices. We are also exploring the possibility of using drone-mounted video and thermographic cameras for monitoring the state of health of overhead power line components.

**Hearing:**

8. The Authority considered the response of the Licensee and decided to provide an opportunity for a hearing to the Licensee under NEPRA (Fine) Regulations, 2021,

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before further proceeding in the matter. Accordingly, the said hearing was held on December 07, 2023, wherein, the CEO of the Licensee along with his team made the following submissions:

- (i) At present 11,000 employees are working in place of 19,000 employees. Similarly, 3,000 Linemen are working in place of 5,000 employees. Therefore, there is an acute shortage of staff and IESCO has not received any permission regarding the recruitment of the staff.
- (ii) IESCO is procuring T&Ps from UK and USA which are of international standards.
- (iii) In addition to above, personal negligences of the people have also been involved which led to their fatalities.
- (iv) Punishments in terms of dismissal from service, demotion etc. have been provided to twenty-four employees.
- (v) Eight out of sixteen fatalities of public persons occurred due to working illegally on IESCO's network.

9. **Findings/Analysis:**

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

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

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

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

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

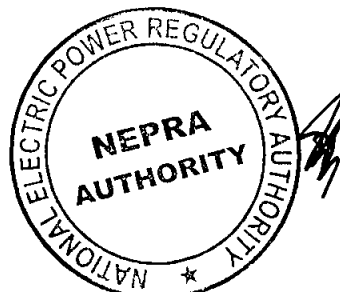
The Licensee is required to follow the design parameters of the distribution network and take all possible measures as laid down in the NEPRA Performance Standards Distribution Rules, Distribution Code, and Consumer Service Manual to ensure that there is no leakage of current from its distribution facilities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

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

At various sites, it has been observed that there is a deteriorated HT/LT system of the Licensee.

In some cases, either protection devices were inoperative or in dilapidated condition and failed to operate to isolate the faulty system in case of

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breaking/falling of conductors which caused leakage of current as observed in the cases (03 fatalities) of Ms. Pakeeza, Mr. Muhammad Pervaiz, and Mr. Muhammad Miskeen.

In the case of Ms. Pakeeza (03 years old child girl), the LT conductor was broken and fell on the ground. Somehow, the victim touched the broken conductor, got electrocuted, and died. In the instant case, no LT protection was operated at the distribution transformer. Similarly, in the case of Mr. Muhammad Pervaiz, the victim along with his cattle (cow) came in contact with a live HT line, whose clearance was reduced to a dangerous level due to the breakage of a wooden cross-arm from the HT pole. Consequently, the victim and his cattle expired on the spot. In the case of Mr. Muhammad Miskeen, the victim came in contact with a hanging DSL cable and died, as the other end of cable was shorted with the HT Jumper of the distribution transformer. Since, the Licensee is charging rental amounts to Cable Operators, therefore, it is the prime responsibility of the Licensee to ensure the proper laying of TV cables as per standards, so that no leakage current can be produced which could be the cause of electrocution.

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

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

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

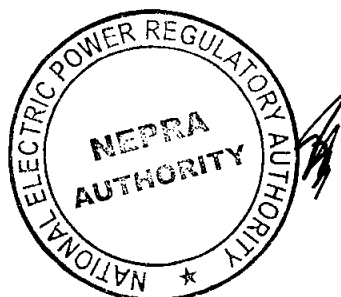
- (i) .....
- (ii) *A distribution company shall ensure that its distribution facilities do not cause any leakage of electrical current or step potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment;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

#### **Distribution Code**

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

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

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



## **SR 4 Safety Management Criteria**

a. ....

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

### **DDC 3 DESIGN PRINCIPLES**

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

a. *The principles of design, manufacturing, testing and installation of Distribution Equipment, overhead lines and underground cables, including quality requirements, shall conform to applicable standards such as IEC, IEEE, Pakistan Standards or approved current practices of the Licensee.*

b. *The specifications of Equipment, overhead lines and cables shall be such as to permit the Operation of the Licensee Distribution System in the following manner;*

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

### **Consumer Service Manual**

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

##### **12.2 Obligation of IESCO**

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

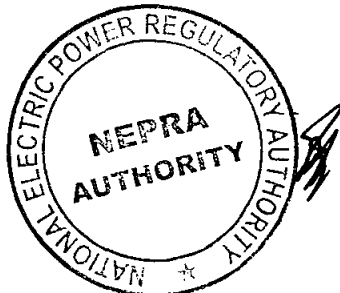
*12.2.1 Operation and maintenance of IESCO distribution system /Network shall be carried out only by the IESCO authorized and trained personnel.*

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

In view of the foregoing, the Licensee has failed to discharge its statutory obligation to maintain safety standards and ensure that its protection system operates on time to prevent leakage of current, therefore, 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.

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

It has been observed that the houses have been constructed or are being constructed dangerously close to the HT Lines. Particularly, in the cases of Mr.



Qadeer Sheikh, Mr. Muhammad Imtiaz, and Mr. Muhammad Arsalan, all the victims came in contact with the HT lines and died, which were dangerously close to their 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 laid down in the Consumer Service Manual:

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

#### **Rule 4(g) – Safety**

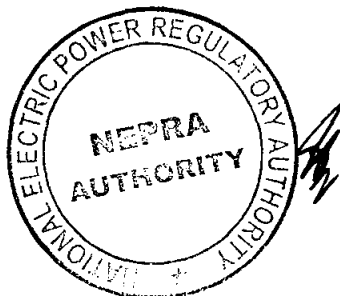
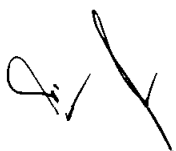
- (i) *All distribution facilities of a distribution company shall be constructed, operated, controlled and remained in a manner consistent with the applicable documents.*
- ii) *A distribution company shall ensure that its distribution facilities do not cause any leakage of electrical current or step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

#### **Distribution Code**

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

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

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



## **Chapter 12 Consumer Service Manual**

### **12.2 Obligations of IESCO**

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

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

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

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

### **12.4 SOME USEFUL SAFETY TIPS**

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

### **Distribution Code**

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

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

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

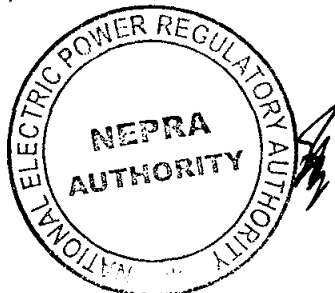
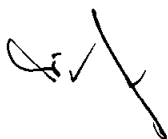
#### **DDC 2.2 Distribution Design Code**

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

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

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

- a. The principles of design, manufacturing, testing and installation of Distribution Equipment, overhead lines and underground cables,*





*including quality requirements, shall conform to applicable standards such as IEC, IEEE, Pakistan Standards or approved current practices of the Licensee.*

*b. The specifications of Equipment, overhead lines and cables shall be such as to permit the Operation of the Licensee Distribution System in the following manner;*

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

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. Therefore, the Licensee has failed to prevent the construction of buildings dangerously close to the HT lines which have unsafe clearance with respect to the existing lines which ultimately led to fatal accidents. Foregoing in view, 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.

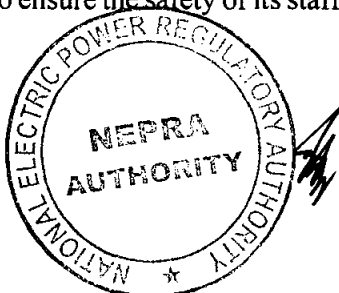
## **9.2. LACK OF SAFETY MEASURES/CULTURE:**

During review of the preliminary reports, it has been observed that eight (08) fatalities of the Licensee's employees occurred due to lack of safety measures/culture in the Licensee's service territory. Further, details are following:

- i. Mr. Muhammad Nazakat (ALM)
- ii. Mr. Muhammad Awais Khalid (Daily Wager)
- iii. Mr. Allah Yar (LM-I)
- iv. Mr. Maqbool Ahmed (ALM)
- v. Mr. Taj Bahadur (LM-II)
- vi. Mr. Nawab Khan (ALM)
- vii. Mr. Mumtaz Ahmed (ALM)
- viii. Mr. Sami Ullah (ALM)

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 the Licensee's staff. Failure to ensure the issuance of PTW, using improper PPE, and lack of supervision of work under safety precautions at the worksite are also contributing factors to this accident. Moreover, the execution of work in an unplanned and haphazard manner is also a reason for the fatal accident.

Pursuant to performance standards laid down for the distribution licensees, 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 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.

**NEPRA Performance Standard (Distribution) Rules**

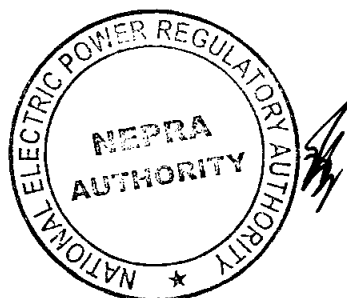
**Rule 4(g) – Overall Standard (Safety)**

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

**Distribution Code**

**SR 4, Safety Management Criteria**

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



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

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

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

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

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

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

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

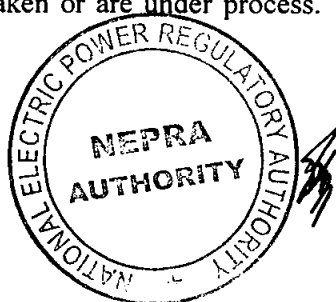
### ***PSC-6.3 General Provisions of Safety:***

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

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

10. The Licensee has submitted the detailed reasons of each individual fatal accident that occurred in its territory in FY 2022-23. The same have been considered by the Authority and thoroughly analyzed in preceding paragraphs and affixed the responsibility of the cases that occurred due to the Licensee's own negligence.

11. Regarding accidents to the Licensee's own staff, the Licensee has submitted that strict disciplinary actions have been taken or are under process. The Licensee has further

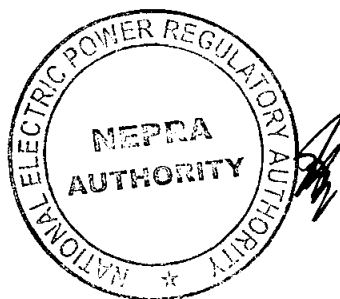


added that it has developed a proper system of accountability in which no one goes unpunished for violation of safety SOPs. The Operation Director, of the Licensee has imposed severe penalties on about 95 officials/officers in the fiscal year 2022-23 alone. The Licensee has also submitted that a comprehensive program for the removal of hazardous points from its network is under process since January 2019. As of September 4, 2023, 10200 Nos. of hazardous points have been identified. Out of which, 8890 (about 87%) have been completed. The remaining points are delayed either due to right-of-way problems or are newly identified. Moreover, the Licensee makes use of various media platforms and its own consumer electricity bills for disseminating information regarding the prevention of public accidents.

The Authority has examined the submissions of the Licensee and observes that taking strict disciplinary actions on more than 95 officers/officers itself indicates that the Licensee is admitting its negligence on account of the occurrence of fatal accidents for employees. However, such actions cannot absolve the Licensee from its liability as it has failed to avoid these fatal accidents by eliminating their causes. The Authority further observes that, it is a matter of record that 29, 17, 22, 27, and 24 fatalities occurred in the Licensee's territory in FY 2018-19, FY 2019-20, FY 2020-21, FY 2021-22, and FY 2022-23, respectively. The said numbers are one of the highest among all of the DISCOs, which is a clear reflection of its efforts to remove hazards, which are being led towards fatal accidents almost every year. This clearly shows that the Licensee has miserably failed in the performance and discharge of its duties which have caused fatal accidents and injuries on a periodical basis as a matter of routine. It is also deplorable state of affair that during hearing CEO is putting all the responsibility and negligence on deceased persons rather than improving their own network/system. Consequently, the contention put forth by the Licensee is vehemently denied. Therefore, the plea taken by the Licensee seems not valid.

12. The Licensee has submitted that it imparts trainings to all cadres of its field staff regarding safety of the staff and the general public. The Licensee's senior management and the Safety Directorate maintain close liaison with the Regional and Circle Training Centers for bringing improvement in the qualities of safety trainings. The Regional Training Center has conducted safety training sessions in which 1237 employees during the FY 2022-23 were trained.

The Authority has gone through the claims of the Licensee and observes that despite the aforementioned training to staff regarding safety of staff and the general public, fatalities in the Licensee's service territory for both the employees and general public are increasing every year. The persistent increase in number of fatalities within the Licensee's territory raises serious concerns about the effectiveness of these trainings. The Licensee should think out of box and bring some workable solutions as the occurrence of averagely 25 fatalities every year since last five years creates a big question mark upon the operation & maintenance of the Licensee's distribution system and then obligation the discharge of its duties which have caused fatal accidents and unfortunately, the no. of accidents have been increased manifold. Therefore, the submissions of the Licensee seem baseless.



13. **Decision**

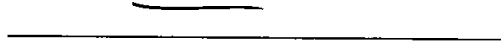
- 13.1. Keeping in view the submissions of the Licensee, the evidence available on record, and provisions of relevant NEPRA laws and terms and conditions of distribution license issued to the Licensee, the Authority hereby rejects the response of the Licensee against the served Show Cause Notice dated August 30, 2023, and imposed a fine of PKR 35 Million on the Licensee under the NEPRA Act, and NEPRA (Fine) Regulations, 2021 on account of non-compliance by the Licensee with NEPRA Act, Terms & Conditions of its License, Performance Standards (Distribution) Rules 2005, Distribution Code, Power Safety Code, Consumer Service Manual and other applicable documents.
- 13.2. The Authority has also observed that the Licensee gives compensation of PKR 3.5 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 given any compensation to the members of bereaved families of public persons who lost their lives due to the above-mentioned contraventions of the law by the Licensee. Therefore, the Authority hereby directs the Licensee to give compensation to the families of six deceased public persons equal to the amount being given to its employee's family and provide jobs to their next of kins. Further, the Licensee shall submit documentary evidence of its compliance in this regard to the satisfaction of the Authority within a period of two months.

**AUTHORITY**

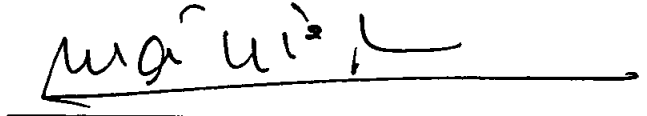
Rafique Ahmed Shaikh  
Member (Technical)



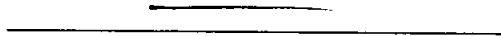
Engr. Maqsood Anwar Khan  
Member (Licensing)



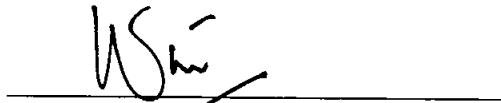
Mathar Niaz Rana (nsc)  
Member (Tariff )



Amina Ahmed  
Member (Law)



Waseem Mukhtar  
Chairman



Dated 26/04/2024

