



National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/DG(M&E)/LAD-03/ 148

January 02, 2024

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

Subject: **ORDER OF THE AUTHORITY IN THE MATTER OF EXPLANATION ISSUED TO GEPCO UNDER REGULATIONS 4(1) AND 4(2) OF NEPRA (FINE) REGULATIONS, 2021 ON ACCOUNT OF FAILURE TO EXECUTE EARTHING/GROUNDING OF HT/LT POLES/STRUCTURES IN ITS SERVICE TERRITORY.**

Enclosed please find herewith the Order of the Authority (total 09 Pages) in the subject matter for compliance.

Enclosure: As above

(Engr. Mazhar Iqbal Ranjha)



National Electric Power Regulatory Authority

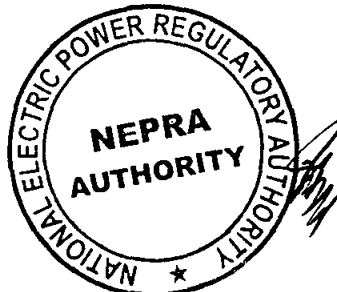
ORDER

**IN THE MATTER OF EXPLANATION ISSUED TO GEPCO UNDER
REGULATION 4(1) AND 4(2) OF NEPRA (FINE) REGULATIONS, 2021, ON
ACCOUNT OF FAILURE TO EXECUTE EARTHING/GROUNDING OF HT/LT
POLES/STRUCTURES IN ITS SERVICE TERRITORY.**

1. Gujranwala Electric Power Company Limited (GEPCO) (the "Licensee") was granted a Distribution License (No. 04/DL/2002) by the National Electric Power Regulatory Authority (the "Authority") on 24.04.2002, 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:

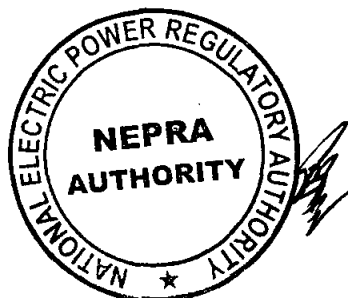
2. During the investigation conducted by NEPRA with respect to Fatal Accidents in DISCOs, it was observed that the distribution facilities of DISCOs such as poles/structures lack earthing/grounding which is one of the major causes of the occurrence of fatal accidents. The Authority while taking notice of such serious safety hazards directed the Licensee vide letter dated June 07, 2022, followed by reminders dated July 06, 2022, and August 02, 2022, to submit the data pertaining to the total number of poles/structures, number of poles/structures already earthed/grounded, and number of poles/structures to be earthed/grounded. Accordingly, the Licensee submitted the required information vide its email dated August 11, 2022.
3. The Authority after carefully examining the data submitted by the Licensee called 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 execution of earthing/grounding of HT/LT poles/structures in its service territory, in order to avoid fatal accidents in 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 time required to execute the earthing/grounding of 100% of the remaining poles/structures.
4. In response, the Licensee vide its letter dated September 29, 2022, submitted that a proposal has been presented before BOD GEPCO for the engagement of private contractors for providing earthing/grounding to the structures. The Licensee further submitted that it is trying its best to complete this job by the end of June 2023. Moreover, it was observed that the Licensee submitted the details of steel structures



only, however, the Licensee should have submitted the details of PCC poles too along with its plan, which the Licensee failed to do. 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		
231,361	106,102	95,492	10,610	125,259	112,733	12,526	208,225	23,136

5. The aforementioned 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 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 was also sent to the Licensee.
6. In addition to above, NEPRA Regional Office, Gujranwala, 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.
7. In response to NEPRA's letter dated October 28, 2022, the Licensee vide its letter dated November 07, 2022, submitted its response against the aforementioned directions & queries of the Authority. The Licensee further submitted that the revised plan is under preparation & will be discussed & approved by BoD GEPCO and will be submitted to NEPRA as soon as it got approved. Thereafter, vide various telephonic reminders, the Licensee was directed to submit a detailed plan duly approved by BOD GEPCO, for consideration of the Authority. In response, the Licensee vide its letter dated December 29, 2022, again submitted the details of its steel structures only along with its execution plan which will be completed in five years time.
8. The plan submitted by the Licensee was reviewed and it was noted with concern that this time the number of steel structures has been increased from 231,361 to 250,977, which again creates a question mark in the data authenticity and surveys being conducted by the Licensee. Non-finalization of the exact number of steel structures even after a lapse of six months clearly indicates the seriousness of the Licensee towards inculcating a safety culture in its service territory. Furthermore, the five years execution plan only for structures seems irrational. This means that only 50,000 structures per year or 4,000 structures per month will be grounded by the Licensee, which shows the level of commitment of the Licensee towards the rectification of such serious safety hazards.



9. In addition to above, the Licensee did not submit anything pertaining to earthing of PCC poles, despite repeated directions and a time-lapse of almost six months. Non-submission of details of PCC poles by the Licensee indicates that it does not have any plan to execute this important task. The Licensee is only consuming time and applying delaying tactics in the implementation of the project as till date the on-ground performance of the Licensee is zero. It is a matter of record that despite repeated and continuous correspondence, the Licensee failed to produce any concrete plan indicating specific timelines for executing the earthing/grounding of HT/LT poles & structures on a war footing basis. The Licensee also failed to submit progress so far being achieved by it in this regard. 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. The salient points of the Explanation are as under:

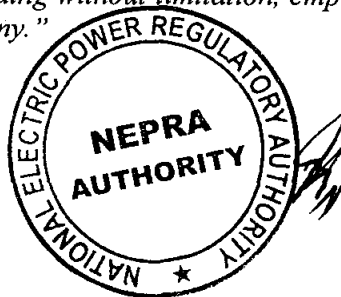
3. ***"WHEREAS, pursuant to section 21(2)(f) of the NEPRA Act, the Licensee is required to follow the performance standards laid down by the Authority for the distribution and transmission of electric power, including safety; and***

4. ***WHEREAS, pursuant to Rule 4(g)(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."

5. ***WHEREAS, according to clause SR 4 Safety Management Criteria of Distribution Code:***

"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."



6. **WHEREAS**, as per clause DDC 4, Design Code- Earthing of Distribution Code:

"...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."

7. **WHEREAS**, pursuant to clause PR 1 Protection System Practices and System Co-ordination of Distribution Code:

"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."

8. **WHEREAS**, as per clauses 12.2.4 and 12.2.5 of Chapter 12 of the Consumer Service Manual:

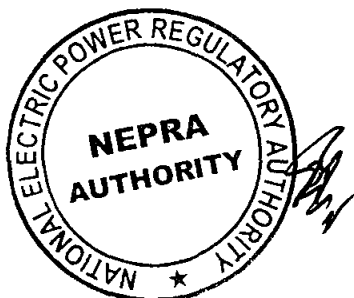
"12.2.4. The earthing systems installed shall be dimensioned and regularly tested to ensure protection from shock hazards.

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."

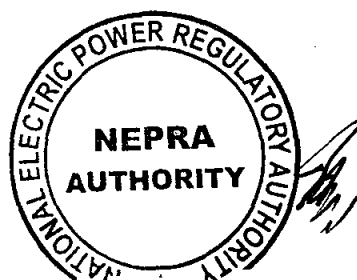
9. **"WHEREAS**, during the investigation conducted by NEPRA with respect to fatal accidents in DISCOs, it was observed that the distribution facilities of DISCOs particularly HT/LT poles/structures lack earthing/grounding which is one of the major causes of the occurrence of fatal accidents. The Authority 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 Email dated August 11, 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		
231,361	106,102	95,492	10,610	125,259	112,733	12,526	208,225	23,136

The above table shows that GEPCO only submitted the detail of steel structures, but not PCC Poles.



10. **WHEREAS**, NEPRA vide letter dated September 26, 2022, while issuing the notice of hearing/meeting directed the Licensee to submit a comprehensive plan along with specific timelines for the execution of the earthing/grounding of the remaining poles/structures along with certain queries of the Authority. In response, the Licensee vide its letter dated September 29, 2022, submitted that a proposal has been presented before BOD GEPCO for the engagement of private contractors for providing earthing/grounding to the structures. The Licensee further submitted that it is trying its best to complete this job by the end of June 2023. In this regard, it was observed that the Licensee submitted the details of steel structures only, however, the Licensee should have submitted the details of PCC poles too along with its plan, which the Licensee failed to do; and
11. **WHEREAS**, a hearing/meeting on the matter was also held on October 04, 2022, wherein the representatives from all DISCOs including CEO GEPCO 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. The Authority also desired that DISCOs should provide a mechanism on how they will efficiently perform the execution task within the minimum possible time. However, the Licensee did not submit anything in this regard; and
12. **WHEREAS**, vide NEPRA's letter dated October 28, 2022, the Licensee was again directed to submit the said information in the light of observations highlighted by NEPRA. In response, the Licensee vide its letter dated November 07, 2022, submitted its reply, wherein, the Licensee agreed upon some queries raised by NEPRA and submitted that it has noted all for compliance. The Licensee further submitted that the revised plan is under preparation & will be discussed & approved by BoD GEPCO and will be submitted to NEPRA as soon as it got approved. Thereafter, vide various telephonic reminders, the Licensee was directed to submit a detailed plan duly approved by BOD GEPCO, for consideration of the Authority. In response, the Licensee vide its letter dated December 29, 2022, again submitted the details of its steel structures only along with its execution plan which will be completed in five years time. It is pertinent to highlight that this time the number of steel structures has been increased from 231,361 to 250,977, which again creates a question mark in the data authenticity and surveys being conducted by the Licensee. Non-finalization of the exact number of steel structures even after a lapse of six months clearly indicates the seriousness of the Licensee towards inculcating a safety culture in its service territory. Furthermore, the five years execution plan only for structures seems irrational. This means that only 50,000 structures per year or 4,000 structures per month will be grounded by the Licensee, which shows the level of commitment of the Licensee towards the rectification of such serious safety hazards; and
13. **WHEREAS**, the Licensee did not submit anything pertaining to earthing of PCC poles, despite repeated directions and a time-lapse of almost six months. Non-submission of details of PCC poles 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

14. **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. The Licensee has also failed to submit progress so far being achieved by it in this regard. 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”

12. The Licensee vide its letter dated June 26, 2023, submitted its response. The summarized points of the same are below:

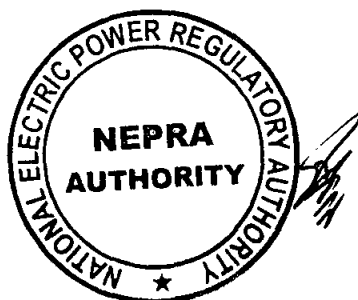
“It is correct that GEPCO being Licensee is fully bound to ensure compliance of Clause SR 4 Safety Management Criteria as well as Overall Standard OS-7, Performance Standard NEPRA 2005, trying its best to build safety culture that encourages proactive risk management. Accordingly several directives, as received from NEPRA were communicated to field formation of GEPCO, time to time, regarding provision of earthing to the Distribution System in accordance with Standard Design Instruction to ensure safety to general public, employees and property of GEPCO.

It is humbly submitted that, initially detail of the HT/LT Steel Structure was brought into the notice of Authority because as per prior record/statics of fatalities, occurred by cause of electrocution were mainly due to flow of short circuit/fault current through HT/LT Steel Structure. Hence, GEPCO has emphasized utmost priority to earthing of HT/LT steel structures at first place of its strategic plan for implementation of earthing of Distribution system.

It is pertinent to mention that on direction of authority a comprehensive survey was conducted to determine the exact quantity of HT/LT Steel Structure and Pre-stressed Cement Concrete (PCC) poles installed at the site. As far as non-provision of detail of HT/LT PCC Poles is concerned it is stated that GEPCO vide its letter No. 58648-49/HSE-24 dated December 29, 2022, only provided the plan for HT/LT Steel Structures as counting survey of HT/LT PCC poles was partially completed at that time and will be completed by October 2023 as per Contractual Agreement with M/S Crowe Hussain Chaudhary & Company Lahore. Furthermore, HT/LT PCC pole has two types: Spun Pole and H-Type and as per field survey H-Type PC Poles manufactured before 2008 have no position for earthing. Due to very reason, no plan for HT/LT PCC pole was provided at initial stage. However, the survey of PCC poles is being completed through physical survey of Distribution network where counter-verification is also being made to know category wise exact number.

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In addition to above it merits to mention that tendering for installation of earthing to Distribution System through outsourcing has also been initiated at Circle level on war footing basis to ensure compliance of aforesaid directives. However field formations have also been directed to expedite the pace of provision Standard Earthing to Distribution Transformers and HT/LT Steel Structures at highly hazardous locations in parallel with outsourcing, and replacement of deteriorated cables/bundle cables/puncture and insulators were also provided in order to avoid any Fatal/Non-fatal accidents."

Hearing:

13. Furthermore, in order to satisfy the requirement of law, the Authority decided to provide an opportunity of a hearing to the Licensee in light of Regulation 4 (5) of NEPRA (Fine) Regulations, 2021, before further proceeding in the matter. Accordingly, the said hearing was held on July 19, 2023, wherein, CEO of the Licensee along with his team, made the following submissions:
- (i) GEPCO has prepared and submitted before the Authority a plan for earthing/grounding of the system and the same will be executed as per the submitted timelines.
 - (ii) As per the tentative plan prepared by GEPCO, the execution has been started from July 2023.
 - (iii) All the SOPs for earthing of existing poles/structures/transformers as well as for the same to be installed in the future have been prepared by GEPCO.
 - (iv) According to the SOPs prepared, Rs. 10,000/- will be allocated to per poles/structures, and Rs. 20,000/- will be allocated to each transformers in their future estimates for the purpose of earthing/grounding explicitly.
 - (v) GEPCO has constituted the committees to ensure the earthing/grounding on ground through proper monitoring.
 - (vi) The consultant of GEPCO (M/s Crowe) is carrying out survey of poles and the same has been completed for eighteen (18) subdivisions.

Analysis/Findings:

14. The Licensee has submitted that it is fully bound to ensure compliance with safety standards as prescribed in PSDR & Distribution Code and trying its best to build safety culture in its territory. The Licensee has further submitted that the directions of NEPRA were already communicated to the field formation regarding provision of earthing to the Distribution System.

The Authority has considered the submissions of the Licensee and observes that the Licensee has agreed with its obligations to be fulfilled in order to ensure the safety of the general public and employees, however, the Licensee has failed to do so, as hundreds of thousands of Structures are lacking earthing/grounding due to which fatalities are being occurred.

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15. The Licensee has submitted that upon direction of the Authority, a comprehensive survey was conducted to determine the exact quantity of HT/LT Steel Structure and Pre-stressed Cement Concrete (PCC) poles installed. Regarding the non-provision of information pertaining to PCC Poles, the Licensee has submitted that the survey is under process and will be completed by October 2023.

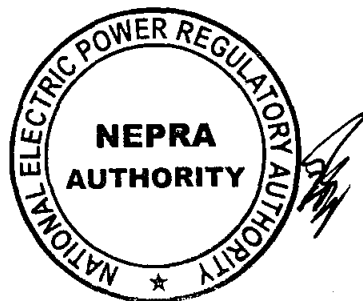
In this regard, the Authority after considering and carefully examining the submissions of the Licensee observes that the Licensee is blowing hot & cool and trying to manipulate the things. On one end, initially, the Licensee submitted that the survey was conducted to determine the specific number of structures and PCC poles. However, on the other end, it has now submitted that the survey of PCC poles is under process. Regarding the completion of survey of PCC poles by October 2023, the Authority is of the view that the Licensee has shown non-serious attitude towards the rectification of such severe safety hazards, as the Licensee has still not completed the said survey despite the lapse of more than one year. This raises serious questions about the Licensee's ability to determine how and when it will complete the survey and subsequent execution of the earthing/grounding in the minimum possible time. This further reveals that the Licensee is employing just delaying tactics by not taking the directions of the Authority seriously.

16. The Licensee has claimed that it has already submitted the plan to execute structures vide its letter dated December 29, 2023. The plan submitted by the Licensee has been considered and analyzed by the Authority and it is observed that five years for the execution of 250,977 structures seems irrational, as only 50,000/year or 4000/month of structures will be earthed by the Licensee, which shows the poor commitment towards rectification of such serious safety hazards. The Licensee should take efforts on a war footing basis, and complete the task in the minimum possible time. As there are some DISCOs who are executing the earthing of around 50,000 structures per month.
17. The Licensee has submitted that tendering for installation of earthing to the Distribution System through outsourcing has also been initiated at the Circle level to ensure compliance with aforesaid directives. The Licensee has further submitted that the field formations have been directed to expedite the pace of provision of Standard Earthing at highly hazardous locations in parallel with outsourcing in order to avoid any Fatal/Non-fatal accidents.

The Authority has considered the submissions of the Licensee and is of the considered opinion that the initiatives being taken by the Licensee are after the initiation of Legal proceedings by NEPRA, which should have been initiated a lot earlier. Furthermore, the claims of the Licensee are appearing on paper only as the on-ground performance on the Licensee's part seems not significant.

Signature

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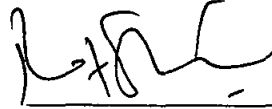


18. **Decision**

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 Explanation served to it, therefore, the Authority hereby decides to issue a Show Cause Notice to the Licensee in terms of Regulations 4(8) & (9) of the NEPRA (Fine) Regulations, 2021.

AUTHORITY

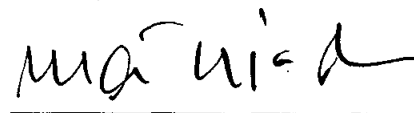
Rafique Ahmed Shaikh
Member (Technical)



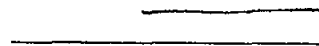
Engr. Maqsood Anwar Khan
Member (Licensing)



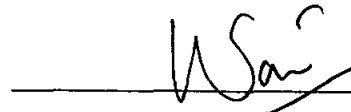
Mathar Niaz Rana (nsc)
Member (Tariff & Finance)



Amina Ahmed
Member (Law)



Waseem Mukhtar
Chairman



Dated 02/01/2024

