

ANALYSIS OF ACCIDENTS IN UZBEKISTAN'S RAILWAY TRANSPORT

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Abstract: This article provides a statistical analysis of accidents that occurred on the railway transport of the Republic of Uzbekistan and at industrial enterprises of "O'zbekiston temir yo'llari" JSC during the period of 2014-2025. The study examines the number of accidents, their severity, and the primary causal factors. The analysis reveals that the main causes of accidents are non-compliance with technological process requirements, violations of train traffic safety rules, and factors related to electrical safety.

Keywords: railway transport, accident, occupational safety, industrial safety, statistical analysis, industrial enterprises.

АНАЛИЗ НЕСЧАСТНЫХ СЛУЧАЕВ НА ЖЕЛЕЗНОДОРОЖНОМ ТРАНСПОРТЕ УЗБЕКИСТАНА

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Аннотация: В статье представлен статистический анализ несчастных случаев, произошедших на железнодорожном транспорте Республики Узбекистан и на промышленных предприятиях АО «Узбекистон темир йуллари» в период с 2014 по 2025 год. В исследовании рассматриваются количество несчастных случаев, степень их тяжести и основные причинные факторы. Анализ показывает, что основными причинами несчастных случаев являются несоблюдение требований технологического процесса, нарушение правил безопасности движения поездов и факторы, связанные с электробезопасностью.

Ключевые слова: железнодорожный транспорт, несчастный случай, охрана труда, промышленная безопасность, статистический анализ, промышленные предприятия.

О‘ЗБЕКИСТОН ТЕМИР YO‘L TRANSPORTIDAGI BAXTSIZ HODISALAR TAHLILI

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Annotatsiya: Mazkur maqolada O‘zbekiston Respublikasida temir yo‘l transportida hamda “O‘zbekiston temir yo‘llari” AJga qarashli sanoat korxonalarida 2014-2025 yillar davomida sodir bo‘lgan baxtsiz hodisalar statistik

tahlili keltirilgan. Tadqiqotda hodisalar soni, ularning og‘irlik darajasi hamda asosiy sabab omillari o‘rganildi. Tahlil natijalariga ko‘ra baxtsiz hodisalarning asosiy sabablari texnologik jarayon talablariga rioya qilmaslik, poyezd harakati xavfsizligi qoidalarining buzilishi hamda elektr xavfsizligi bilan bog‘liq omillar ekanligi aniqlangan.

Kalit so‘zlar: temir yo‘l transporti, baxtsiz hodisa, mehnat xavfsizligi, ishlab chiqarish xavfsizligi, statistika tahlili, sanoat korxonolari.

INTRODUCTION.

Railway transport is one of the essential sectors of the national economy. This system plays a vital role in the transportation of freight and passengers. The railway infrastructure is composed of complex technological processes, and ensuring the occupational safety of employees within these processes is of particular importance. Various risk factors arise during production processes as a result of working with high-voltage electrical networks, mechanical equipment, and moving trains.

Despite a series of measures taken in recent years to ensure operational safety, accidents still occur within the railway transport system. Therefore, a statistical analysis of these incidents and the identification of their causes are of significant scientific and practical importance.

METHODS.

This study utilized statistical, comparative, and trend analysis methods. The data was examined based on accident statistics from the railway transport of the Republic of Uzbekistan for the period 2015-2025, as well as incident data from industrial enterprises belonging to "Uzbekistan Railways" JSC between 2014 and 2025.

RESULTS.

Analysis of Accidents in Railway Transport

Table 1

Information on the number of accidents on railway transport in the Republic of Uzbekistan

Years	Number of accidents	Ended in death	Heavy	Medium-severe	Not heavy
2015 y	23	5	14	-	4
2016 y	23	6	14	-	3
2017 y	30	7	17	-	6
2018 y	42	9	22	-	11
2019 y	43	11	20	-	12
2020 y	39	2	24	-	13
2021 y	27	6	18	-	3
2022 y	32	6	17	3	6
2023 y	23	6	14	2	1
2024 y	23	5	14	3	1
2025 y	19	4	10	2	3

Total:	324	67	184	10	63
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Between 2015 and 2025, a total of 324 accidents occurred, affecting 324 people. Among them, 63 sustained minor injuries, 10 sustained moderate injuries, and 184 sustained severe injuries, while 67 people died [4].

An analysis of the causes of railway transport accidents in the Republic of Uzbekistan between 2015 and 2025 shows the following:

1. Causes of death: Exposure to a high-voltage contact network, resulting in electric shock. Negligence of mid-level managers in their duties and failure to comply with technological process requirements (improper use of personal protective equipment) [4, 5, 6].

2. Causes of the severe accident: Violation of train traffic safety requirements and non-compliance with the rules for safe movement on the railway. Violation of train traffic safety rules and workplace technological process requirements due to personal negligence. Irresponsibility of mid-level managers in their duties and failure to adhere to technological process requirements.

3. Causes of the minor accident: violation of technological process requirements at the workplace, resulting from personal negligence. Due to an external factor [4, 5].

According to data No. 200866-r/25 from the State Statistics Committee of the Republic of Uzbekistan, dated July 15, 2025, the number of accidents on railway transport in the Republic of Uzbekistan (for the years 2015-2025) is distributed as follows. A trend line analysis of fatal accidents indicates that the number of such incidents has remained nearly unchanged over the last decade; in fact, this figure even increased significantly between 2017 and 2022 [4].

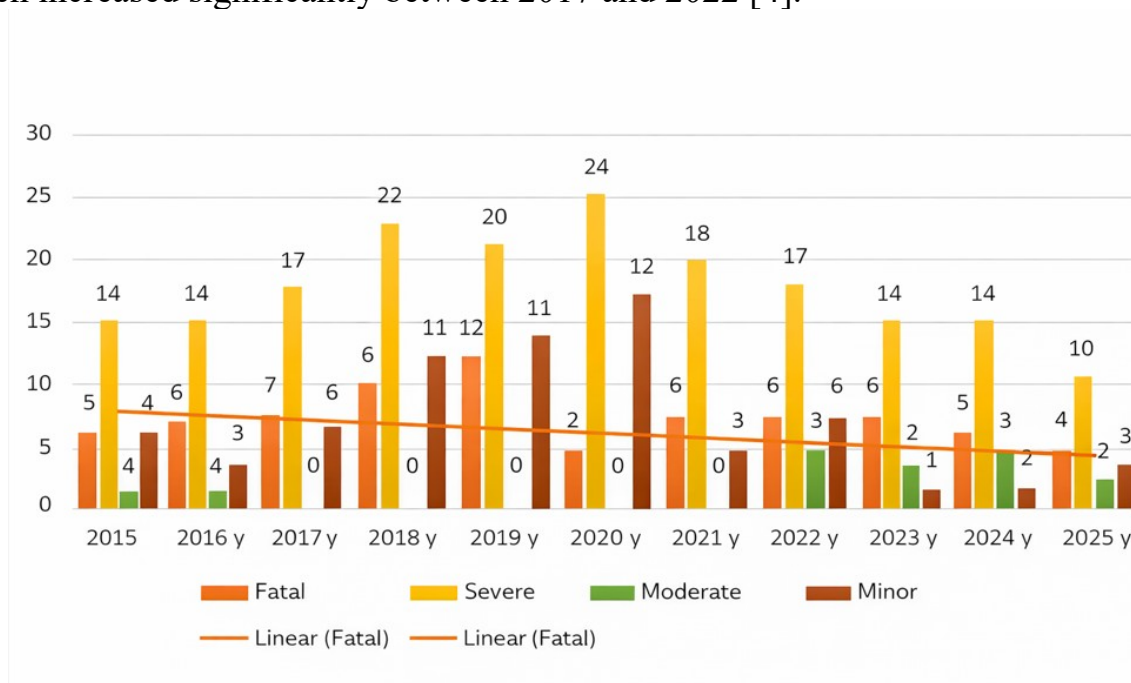


Table 2

Analysis of accidents that occurred at industrial enterprises of "O'zbekiston temir yo'llari" JSC between 2014 and 2025

№	Years	Total number of accidents that have occurred	Total number of injured	The number of accidents, of which			
				Light	Heavy	Ended in death	Group-based
1	2014	4	6	-	5	1	1
2	2015	4	4	2	2	-	-
3	2016	5	6	-	6	-	1
4	2017	5	7	1	6	-	1
5	2018	10	10	4	5	1	-
6	2019	8	8	1	7	-	-
7	2020	7	7	1	6	-	-
8	2021	6	6	-	5	1	-
9	2022	2	2	1	1	-	-
10	2023	5	5	1	3	1	-
11	2024	1	1	-	1	-	-
12	2025	4	4	-	2	2	-
	Jami:	61	66	11	49	6	3

Between 2014 and 2025, a total of 61 accidents occurred, affecting 66 people. Of these, 11 sustained minor injuries, 49 sustained serious injuries, and 6 were killed. Three of the incidents were classified as group accidents.

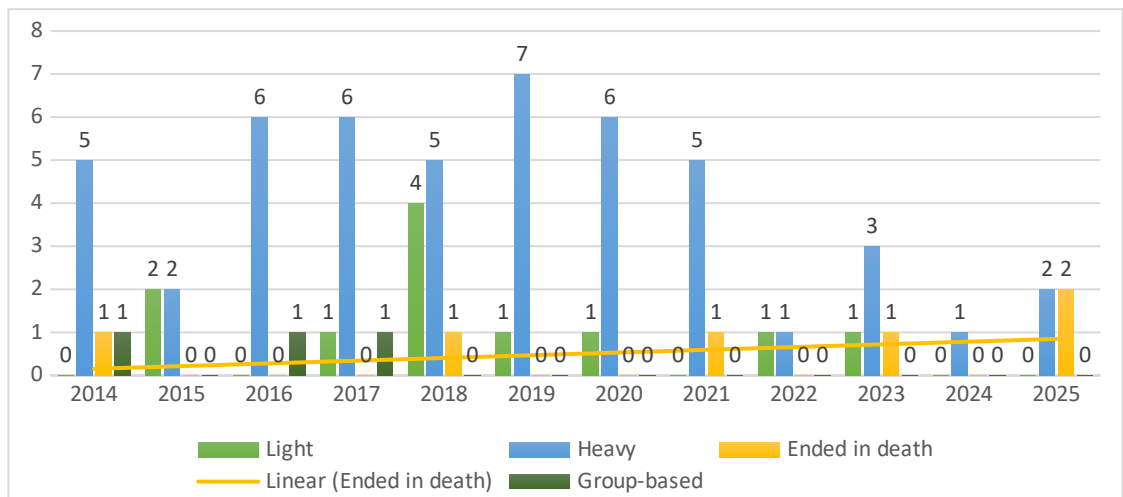
An analysis of accidents at industrial enterprises of "Uzbekistan Railways" JSC between 2014 and 2025 shows that

1. Causes of death: Exposure to a high-voltage contact network, resulting in electric shock. Negligence of mid-level managers in their duties and failure to comply with technological process requirements (improper use of personal protective equipment).

2. Causes of the severe accident: Violation of train traffic safety requirements and non-compliance with the rules for safe movement on the railway. Violation of train traffic safety rules and workplace technological process requirements due to personal negligence. Irresponsibility of mid-level managers in their duties and failure to adhere to technological process requirements.

3. Causes of the minor accident: violation of technological process requirements at the workplace, resulting from personal negligence. Due to an external factor.

The following is a breakdown of accidents that occurred at industrial enterprises under "O'zbekiston temir yo'llari" JSC between 2014 and 2025. An analysis of the trend line for fatal accidents shows that while the number of fatalities remained relatively unchanged over the last decade, an increase in this figure was recorded for 2025 [4].

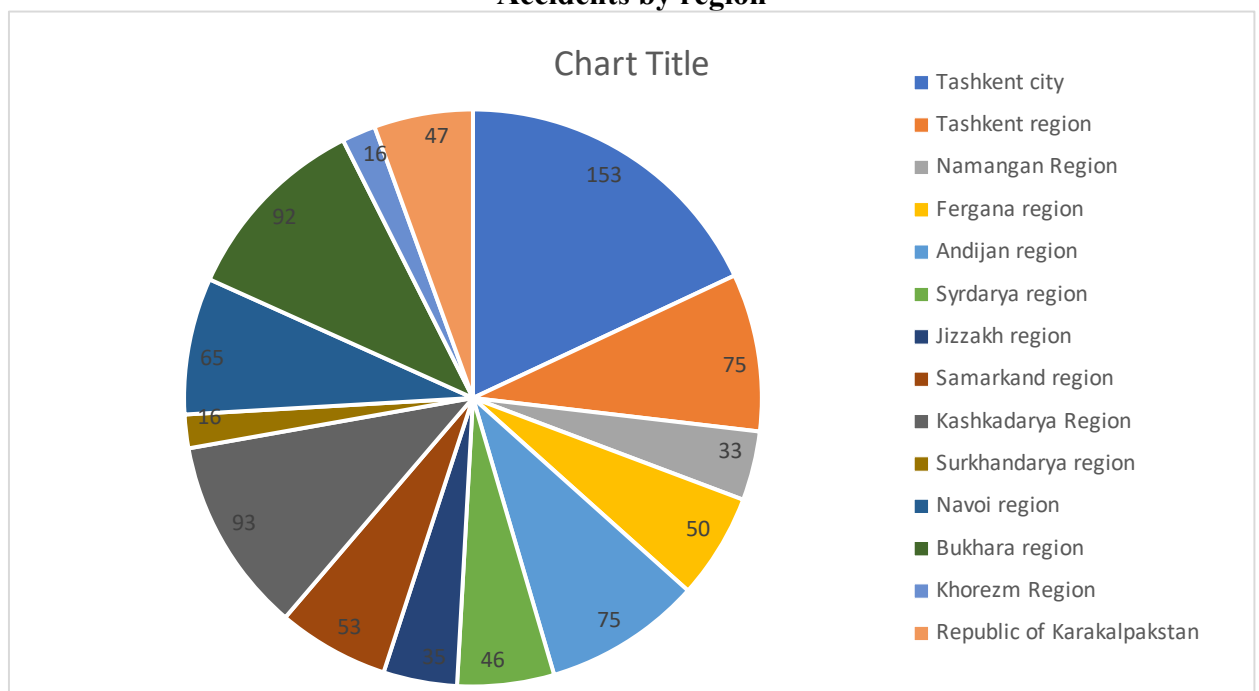


Statistics on workplace accidents in 2025

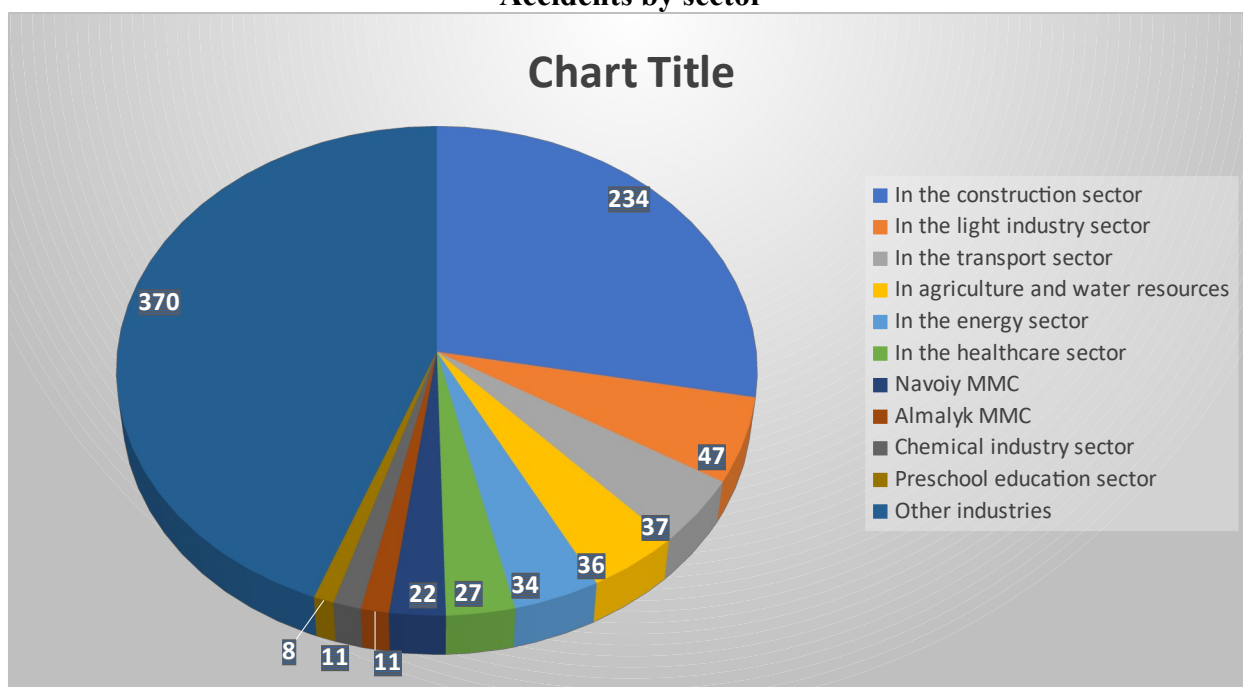
According to the State Labor Inspectorate, 849 workplace accidents were investigated and recorded in the republic in 2025.

Statistics on workplace accidents that occurred in 2025							
Total number of accidents that have occurred				The injured			
Total	Group-based	Grave consequences	Ended in death	Total	The severely injured	The lightly injured	The deceased
849	50	583	216	961	680	33	248

Accidents by region



Accidents by sector



Based on the data above, an analysis of the distribution of accidents reveals that industrial enterprises rank second after the construction sector. This is because over 128 incidents, or more than 16% of all accidents, occur in this industry.

DISCUSSION.

Analysis shows that the main causes of accidents occurring on railway transport are related to non-compliance with electrical safety, violation of technological process requirements, and non-compliance with train traffic safety rules. In some cases, insufficient control by mid-level managers can also contribute to the occurrence of these phenomena.

CONCLUSION.

Ensuring occupational safety on railway transport is an important factor in increasing production efficiency and protecting human life. According to the results of statistical analysis, strict adherence to safety regulations, improving the qualifications of employees, and strengthening control over production processes serve to reduce the number of accidents.

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