



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO BATRAULI INDANE GRAM

Objective of the JRM Report

This JRM report is designed to ensure compliance with the Central Motor Vehicle Rules, 1989 (CMVR), AIS 140 standards, and the Road Transport Safety Policy (RTSP). It provides a comprehensive risk assessment for the transportation of hazardous materials along specified routes. By integrating these legal frameworks, the report offers a broad strategy for identifying and mitigating route-specific risks.

Regulatory Compliance

The report complies with the Central Motor Vehicles (Eleventh Amendment) Rules, 2022, mandating safe transportation practices for N2 and N3 category vehicles carrying hazardous materials. These rules require detailed route assessments, especially regarding road conditions, speed limits, and risk areas, to ensure safety compliance.

Risk Management Strategy

This report categorizes transportation routes into high-risk and medium-risk areas, with a focus on factors such as sharp turns, accident-prone regions, and elevation changes. The goal is to provide actionable recommendations to minimize these risks, including speed regulations, driver warnings for hazardous zones, and the option of alternate routes.

Compliance with the Road Transport Safety Policy (RTSP)

The report integrates RTSP provisions, including mandatory driving hours, rest periods, and nighttime driving restrictions. It ensures that drivers follow official guidelines, such as taking prescribed rest breaks and avoiding dangerous road conditions like poor visibility, heavy crowds, or high-traffic areas during peak hours.

Emergency Preparedness and Response

The report highlights the significance of predetermined emergency stops for refueling, rest, and overnight stays. It includes protocols for safe responses to road hazards, alternative routes, and rerouting processes if roads are closed or severe weather arises. This aligns with the RTSP emphasis on driver safety and rapid emergency response.

Environmental Considerations

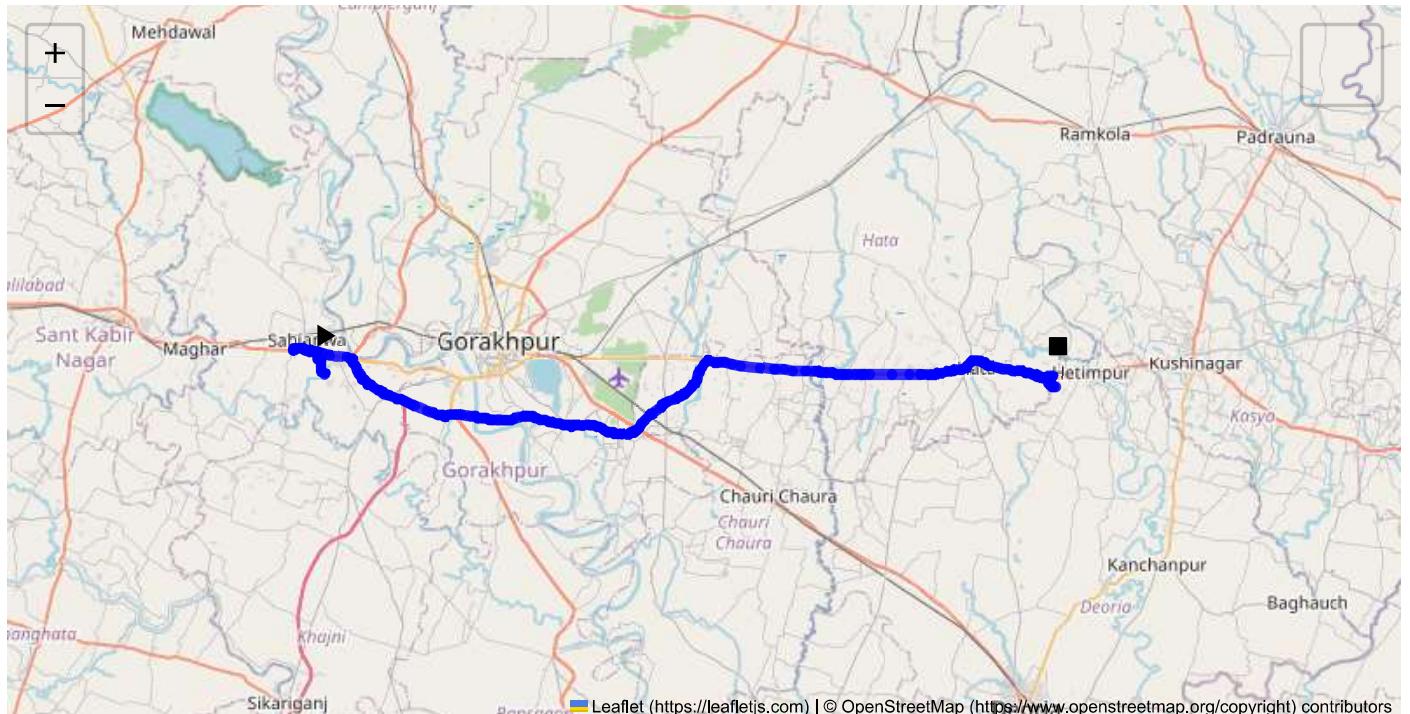
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental impacts during transport.

Journey Risk Mitigation

The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety norms.

Compliance with Government Directives

This report fully adheres to governmental directives regarding hazardous material transportation, implementing mandatory speed limits, nighttime driving restrictions, and comprehensive driver briefings and real-time alerts about route-related risks.



Route Summary:
Total Distance: 70.24 km
Estimated Duration: 1.4 hours
Adjusted Duration (Heavy Vehicle): 1.8 hours
Start: (26.735959, 83.229398)
End: (26.727831, 83.806193)

Welcome to the Journey Risk Management Study

Route Safety Analysis Report

1. Overview of the Route Map

The route from GIDA Industrial Area Phase 1, Sahjanwa to Piprahi Bhadkulwa primarily involves driving on NH27 and then transitioning to local roads. This journey typically covers approximately 70.24 kilometers and is estimated to take about 1.42 hours in a heavy vehicle carrying hazardous materials.

2. Typical Weather Conditions and Potential Weather-Related Hazards

The weather conditions in this region of Uttar Pradesh are usually hot and dry for most of the year, with high temperatures in the summer. The monsoon season, from July to September, can bring heavy rainfall, which may cause waterlogging or flooding in low-lying areas. During such periods, roads can become slippery and reduce visibility, posing significant hazards.

3. Traffic Patterns

Traffic congestion is often observed during peak hours, typically from 8:00-10:00 AM and 6:00-8:00 PM, especially near Sahjanwa and along NH27. The areas near Gorakhpur are particularly prone to traffic slowdowns.

4. Assessment of Road Quality and Infrastructure

The quality of NH27 is generally good, but as the route transitions to local roads closer to Piprahi Bhadkulwa, the road conditions may deteriorate. Potholes and uneven surfaces can be found, which require cautious driving, particularly for heavy vehicles.

5. Suggestions for Alternative Routes for Emergencies

In case of emergencies or roadblocks, an alternative route could involve using local access roads that divert from NH27 before reaching congested areas. However, these routes may not be well suited for heavy vehicles due to road conditions and width.

6. Summary of Local Regulations Affecting Hazardous Material Transport

Transporting hazardous materials requires compliance with local regulations, which often mandate specific routes, times, and escort requirements. Permits for such transport need to be in place, and adherence to speed limits and safety protocols is strictly enforced.

7. Overview of Historical Incidents

Historically, NH27 has seen its share of heavy vehicle accidents, often attributed to speeding or road quality issues during adverse weather. There are also records of incidents involving hazardous materials due to improper handling or containment breaches, usually due to mechanical failures or human error.

8. Environmental Considerations and Sensitive Areas

The route traverses areas that may have agricultural fields and small communities. It's crucial to minimize the impact on the environment by ensuring no leakage or spillage occurs, particularly near water bodies or cultivated lands.

9. Analysis of Communication Coverage

Most of the route along NH27 has decent communication coverage with minimal dead zones. However, as the route moves into more rural areas, there may be pockets with limited cell coverage. It is advisable to inform drivers about these zones and ensure they have emergency contact points if needed.

10. Estimated Emergency Response Times

Emergency response times are estimated to be faster along NH27 due to better infrastructure and accessibility. Rural segments closer to Piprahi Bhadkulwa could experience longer response times due to less accessible routes and fewer nearby facilities.

12. Overall Summary of Risk Assessment

The route from Sahjanwa to Piprahi Bhadkulwa presents moderate risks mainly due to traffic congestion during peak hours, poor road conditions in certain areas, and potential weather-related hazards. Adequate planning, adherence to regulations, and constant communication are crucial to mitigating these risks. Emergency preparedness, including alternative routes and reliable communication, is essential for safe transit. Regular updates on road and weather conditions will also assist in ensuring a secure journey for trucks carrying hazardous materials.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
2	Turn	High	26.73690, 83.22947	15 KM/Hr	0.05 km
3	Turn	High	26.73697, 83.22939	15 KM/Hr	0.11 km
4	Turn	High	26.73746, 83.22938	15 KM/Hr	0.15 km
5	Blind Spot	Blind Spot	26.73791, 83.22625	10 KM/Hr	0.48 km
6	Turn	Medium	26.74524, 83.22746	30 KM/Hr	1.28 km
7	Turn	Medium	26.74532, 83.22740	30 KM/Hr	1.31 km
8	Turn	High	26.74654, 83.22390	15 KM/Hr	1.65 km
9	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.17 km
10	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.23 km
11	Turn	High	26.75377, 83.20465	15 KM/Hr	4.28 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
0	Roundabout	High	26.74681, 83.25111	15 KM/Hr	8.95 km
12	Turn	Medium	26.74656, 83.25154	30 KM/Hr	9.04 km
13	Turn	Medium	26.74644, 83.25150	30 KM/Hr	9.07 km
14	Turn	Medium	26.74526, 83.53161	30 KM/Hr	41.17 km
15	Turn	High	26.73410, 83.80421	15 KM/Hr	68.81 km
1	U-Turn	High	26.7340985, 83.8042062	10 KM/Hr	68.81 km
16	Blind Spot	Blind Spot	26.73396, 83.80420	10 KM/Hr	68.85 km
17	Turn	High	26.73411, 83.80277	15 KM/Hr	68.95 km
18	Turn	High	26.72920, 83.80155	15 KM/Hr	69.53 km
19	Turn	High	26.72908, 83.80186	15 KM/Hr	69.58 km
20	Turn	Medium	26.72897, 83.80188	30 KM/Hr	69.60 km
21	Blind Spot	Blind Spot	26.72888, 83.80185	10 KM/Hr	69.61 km
22	Turn	High	26.72865, 83.80285	15 KM/Hr	69.70 km
23	Turn	Medium	26.72858, 83.80290	30 KM/Hr	69.73 km
24	Turn	Medium	26.72830, 83.80354	30 KM/Hr	69.77 km
25	Turn	High	26.72808, 83.80367	15 KM/Hr	69.83 km
26	Turn	High	26.72799, 83.80405	15 KM/Hr	69.85 km
27	Blind Spot	Blind Spot	26.72714, 83.80383	10 KM/Hr	69.92 km

Emergency Locations

Found: 1 hospital(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	RG Hospital	26.7372178, 83.5824469	30 km/h	Medium	45.85 km

Crowded Spots

Route Photos of Risky Spots



Risk Type: Blind Spot
Risk Level: Blind Spot
Speed Limit: 10 KM/Hr
Distance from Start: 2.17 km
Coordinates: 26.75126, 83.22476



Risk Type: Blind Spot
Risk Level: Blind Spot
Speed Limit: 10 KM/Hr
Distance from Start: 4.23 km
Coordinates: 26.75353, 83.20457



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Risk Type: Turn**Risk Level:** High**Speed Limit:** 15 KM/Hr**Distance from Start:** 4.28 km**Coordinates:** 26.75377, 83.20465

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Risk Type: Roundabout**Risk Level:** High**Speed Limit:** 15 KM/Hr**Distance from Start:** 8.95 km**Coordinates:** 26.74681, 83.25111



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Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 9.04 km**Coordinates:** 26.74656, 83.25154

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Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 9.07 km**Coordinates:** 26.74644, 83.25150



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 41.17 km

Coordinates: 26.74526, 83.53161



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 68.81 km

Coordinates: 26.73410, 83.80421



Risk Type: U-Turn

Risk Level: High

Speed Limit: 10 KM/Hr

Distance from Start: 68.81 km

Coordinates: 26.7340985, 83.8042062



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 68.85 km

Coordinates: 26.73396, 83.80420



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Risk Type: Turn**Risk Level: High****Speed Limit: 15 KM/Hr****Distance from Start: 68.95 km****Coordinates: 26.73411, 83.80277**

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