



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP to ASHOKA GAS SERVICE

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

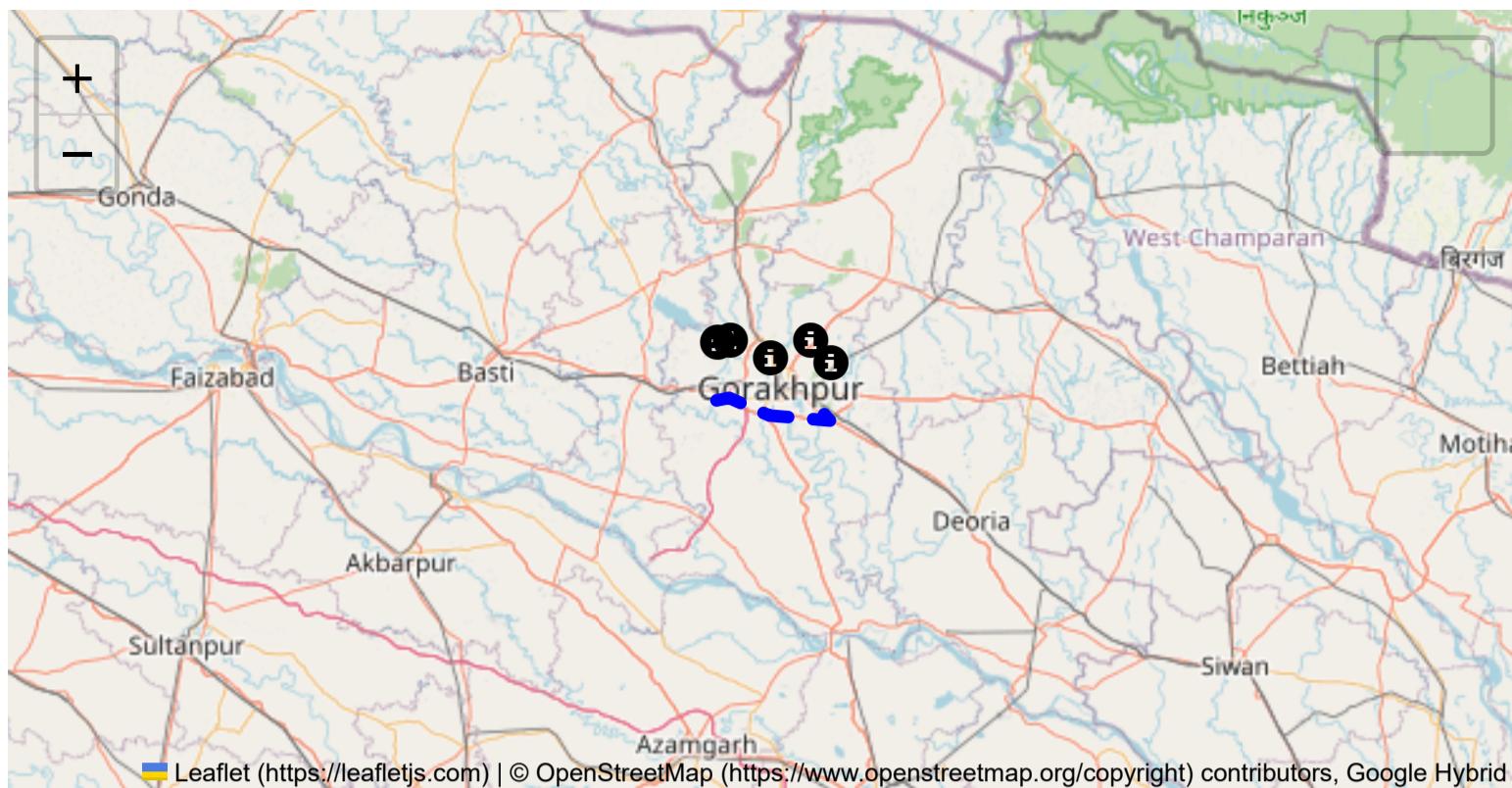
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 42.39 km
Estimated Duration: 1.0 hours
Adjusted Duration (Heavy Vehicle): 1.2 hours
Start: (26.735959, 83.229398)
End: (26.73941, 83.42838)

Welcome to the Journey Risk Management Study

1. Route Overview

The route stretches approximately 42.39 kilometers through Uttar Pradesh, starting from the GIDA Industrial Area in Sahjanwa to Rapti Nagar Phase-4 in Gorakhpur. Passing through key junctions such as Zeropoint and Pipari, the journey includes a traverse along the Gorakhpur Bypass. The surrounding region largely comprises industrial, suburban, and some rural landscapes.

2. Weather Conditions

Uttar Pradesh experiences a subtropical climate, with hot summers and cold winters. Monsoon season (June to September) brings heavy rains, which may lead to flooding and road washouts, posing significant road hazards. Fog is common in winter (December to February), reducing visibility along highways.

3. Traffic Patterns

Traffic peaks are observed during morning hours (8-10 AM) and evening rush hours (5-7 PM), particularly near urban centers like Gorakhpur. The Gorakhpur Bypass may be congested due to its role as a primary thoroughfare for heavy traffic. Delays are typically due to commercial and commuter traffic in these areas.

4. Road Quality and Infrastructure

The overall road quality varies; while industrial areas and major bypasses may have well-maintained roads, stretches through rural areas might be narrower and less maintained. Potholes and uneven surfaces could be expected, especially after the monsoon season, demanding cautious driving.

5. Alternative Route Suggestions

- **Via NH27:** A longer but secondary option bypassing some congestion at peak times.
- **Local Diversions:** Consider using local roads during emergencies, keeping in mind they may be less suited for heavy or hazardous materials.

6. Local Regulations

Transport of hazardous materials is subject to strict regulations in India, requiring special permits and adherence to routes designated by local authorities. Ensure compliance with checkpoints, especially near populated areas and the Gorakhpur Bypass.

7. Historical Incidents

In the past, incidents such as road wear-induced accidents and vehicle breakdowns have been reported more frequently on some segments, especially during the rainy season. Safety improvements have since been enacted but vigilance is still advised.

8. Environmental Considerations

Avoid idling in sensitive areas such as near schools or hospitals, which you may encounter near urban pockets like Gorakhpur. Be aware of wildlife crossing zones, particularly near forested or rural sections of the route.

9. Communication Coverage

Generally good along this route, though some rural and wooded areas may experience brief connectivity issues. It is advisable to have offline maps and emergency contact numbers readily available.

10. Emergency Response Times

- Urban Areas (Gorakhpur vicinity):** Approximately 15-20 minutes.
- Rural Areas:** Response times could extend to 30-40 minutes, depending on location and road conditions.

12. Risk Assessment Summary

Overall, this route presents a moderate level of risk for the transport of heavy vehicles and hazardous materials. Key risks stem from weather impacts, such as monsoon-related flooding and fog, as well as traffic congestion during peak hours. Regular updates on weather forecasts, adherence to local regulations, and preparedness for communication challenges are vital for a safe journey. Proper vehicle maintenance and awareness of emergency contacts will also contribute to mitigating potential risks.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
2	Turn	High	26.73690, 83.22947	15 KM/Hr	0.07 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	1.30 km
7	Turn	Medium	26.74532, 83.22740	30 KM/Hr	1.32 km
8	Turn	Medium	26.74654, 83.22390	30 KM/Hr	1.69 km
9	Turn	Medium	26.74661, 83.22388	30 KM/Hr	1.70 km
10	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.17 km
11	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.23 km
12	Turn	High	26.75381, 83.20466	15 KM/Hr	4.30 km
0	Roundabout	High	26.74681, 83.25111	15 KM/Hr	8.97 km
13	Turn	Medium	26.74644, 83.25150	30 KM/Hr	9.07 km
14	Turn	Medium	26.74310, 83.25343	30 KM/Hr	9.49 km
15	Turn	Medium	26.74298, 83.25343	30 KM/Hr	9.51 km
16	Turn	High	26.69632, 83.47492	15 KM/Hr	33.14 km
17	Turn	High	26.69641, 83.47493	15 KM/Hr	33.17 km
18	Turn	Medium	26.69835, 83.47489	30 KM/Hr	33.41 km
1	U-Turn	High	26.7431793, 83.4198224	10 KM/Hr	40.94 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
19	Blind Spot	Blind Spot	26.74318, 83.41982	10 KM/Hr	40.94 km
20	Turn	High	26.74327, 83.41989	15 KM/Hr	41.05 km
21	Blind Spot	Blind Spot	26.73691, 83.42628	10 KM/Hr	41.92 km
22	Turn	High	26.73945, 83.42831	15 KM/Hr	42.32 km

Emergency Locations

Found: 2 hospital(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
3	hospital	Dwivedi Child Care	26.7292664, 83.430271	30 km/h	Medium	39.08 km
4	hospital	All India Institute of Medical Sciences, Gorakhpur	26.7441387, 83.4216432	30 km/h	Medium	41.09 km

Crowded Spots

Found: 2 university(s), 1 college(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	university	NIELIT Gorakhpur	26.7285652, 83.4342065	30 km/h	Medium	38.83 km
1	college	Madan Mohan Malaviya University of Technology	26.7310807, 83.437208	30 km/h	Medium	38.94 km
2	university	Mechanical Workshop	26.7297498, 83.4350798	30 km/h	Medium	38.94 km

Route Photos of Risky Spots



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Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 2.17 km

Coordinates: 26.75126, 83.22476



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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: 4.30 km

Coordinates: 26.75381, 83.20466



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Risk Type: Roundabout

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 8.97 km

Coordinates: 26.74681, 83.25111



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Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 9.07 km

Coordinates: 26.74644, 83.25150



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Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 9.49 km

Coordinates: 26.74310, 83.25343



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 9.51 km

Coordinates: 26.74298, 83.25343



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 33.14 km

Coordinates: 26.69632, 83.47492



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Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 33.41 km

Coordinates: 26.69835, 83.47489



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Risk Type: U-Turn

Risk Level: High

Speed Limit: 10 KM/Hr

Distance from Start: 40.94 km

Coordinates: 26.7431793, 83.4198224



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Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 40.94 km

Coordinates: 26.74318, 83.41982



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Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 41.05 km

Coordinates: 26.74327, 83.41989



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Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 41.92 km

Coordinates: 26.73691, 83.42628



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Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 42.32 km

Coordinates: 26.73945, 83.42831

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