JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO ABHA INDANE 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

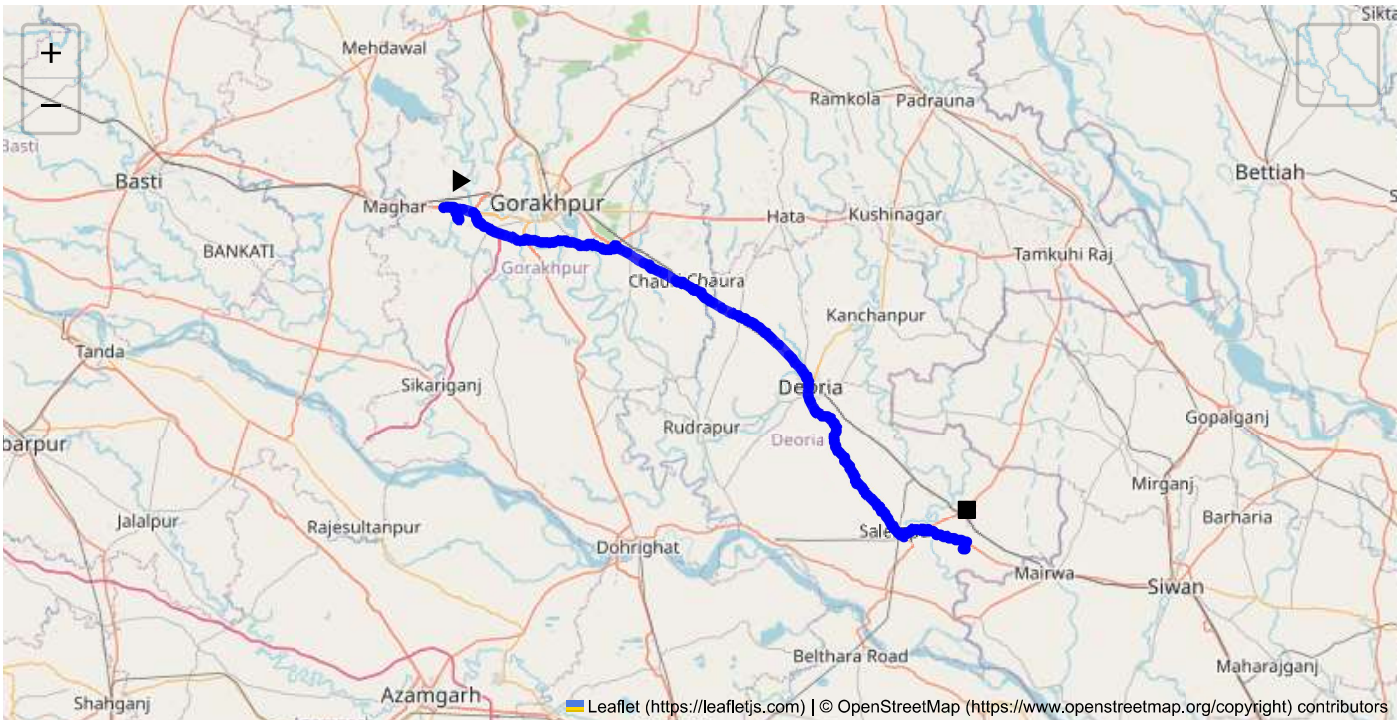
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 113.30 km
Estimated Duration: 2.6 hours
Adjusted Duration (Heavy Vehicle): 3.2 hours
Start: (26.735959, 83.229398)
End: (26.27054, 84.026102)

Welcome to the Journey Risk Management Study

To provide a comprehensive analysis of the route from P6PH+9Q GIDA Industrial Area Phase 1, Sahjanwa, Uttar Pradesh, India to 72CG+5C8, Sukwa Rd, Bahiyari Baghel Ka Tola, Uttar Pradesh 274703, India, several factors need to be considered. Here is a detailed report based on your request:

1. **Overview of the Route Map:**
    - The journey spans approximately 113.30 kilometers, primarily through state highways and rural roads. The route passes through various small towns and villages, necessitating careful navigation through both urban and rural settings.
2. **Typical Weather Conditions and Potential Weather-Related Hazards:**
    - The area experiences a subtropical climate. Summers can be extremely hot, leading to potential asphalt softening. Monsoon season brings heavy rains from June to September, increasing the risk of flooding and reduced visibility. Winters are mild but can entail fog, particularly in early mornings and late evenings.
3. **Analysis of Traffic Patterns:**
    - The route experiences moderate to heavy traffic near urban areas like Gorakhpur. Peak hours typically are in the morning (7:30 AM - 9:30 AM) and evening (5:00 PM - 7:00 PM). Congestion is prone in towns such as Dohrighat and Amila.
4. **Assessment of Road Quality and Infrastructure:**
    - Road quality varies, with state highways being generally better maintained than rural roads, which might have potholes and uneven surfaces. Signage and road markings can sometimes be lacking in rural areas, requiring extra vigilance.
5. **Suggestions for Alternative Routes for Emergencies:**
    - In case of severe congestion or road closures, alternative routes involve state highways SH-1 and SH-73, though these may add distance and time. Local roads through small villages can also offer detours, albeit with caution due to their condition and narrowness.
6. **Summary of Local Regulations Affecting Hazardous Material Transport:**
    - India mandates specific licenses and compliance with Central Motor Vehicles Rules for transporting hazardous materials. Route approval and detailed safety measures must be in place, with vehicles required to carry relevant documentation at all times.
7. **Overview of Historical Incidents:**
    - There have been occasional reports of accidents involving heavy vehicles on these roads, often due to poor road conditions or reckless driving. However, incidents involving hazardous material have been minimal in recorded history along this specific route.
8. **Environmental Considerations and Sensitive Areas:**
    - The route passes near some ecologically sensitive areas, such as river crossings where spillage can have significant environmental impacts. Drivers should maintain extra caution in these areas to prevent contamination.
9. **Analysis of Communication Coverage:**
    - Mobile network coverage is generally good along major stretches of the route but can be inconsistent in more remote or less populated areas, potentially creating dead zones.
10. **Estimated Emergency Response Times:**

- Response times can vary significantly, with urban areas potentially accessing quicker assistance due to proximity to emergency services (approximately 30-45 minutes), while rural areas might experience delays extending to 2-3 hours.

11. **Overall Summary of Risk Assessment:**

- Overall, the route presents moderate risk primarily due to road conditions and weather-related variables. Drivers transporting hazardous materials should exercise heightened caution during inclement weather and at night. Preparedness with alternative routes and monitoring of communication channels is advisable. Emergency plans should be robust, with clear protocols for interaction with local authorities and response teams.

In conclusion, while the route is generally navigable for heavy vehicles, adhering to recommended safety practices and being prepared for unforeseen circumstances is crucial for minimizing risks.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
2	Turn	High	26.73746, 83.22938	15 KM/Hr	0.14 km
3	Blind Spot	Blind Spot	26.73791, 83.22625	10 KM/Hr	0.47 km
4	Turn	High	26.74524, 83.22746	15 KM/Hr	1.16 km
5	Turn	High	26.74654, 83.22390	15 KM/Hr	1.65 km
6	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.16 km
7	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.22 km
8	Turn	High	26.75377, 83.20465	15 KM/Hr	4.27 km
0	Roundabout	High	26.74681, 83.25111	15 KM/Hr	8.13 km
9	Turn	Medium	26.69741, 83.47552	30 KM/Hr	33.24 km
10	Blind Spot	Blind Spot	26.69857, 83.47481	10 KM/Hr	33.41 km
1	U-Turn	High	26.698439, 83.4747268	10 KM/Hr	33.41 km
11	Turn	Medium	26.63752, 83.59723	30 KM/Hr	47.38 km
12	Turn	Medium	26.63761, 83.59795	30 KM/Hr	47.44 km
13	Turn	Medium	26.29409, 83.92225	30 KM/Hr	100.10 km
14	Turn	Medium	26.29365, 83.92376	30 KM/Hr	100.35 km
15	Turn	High	26.28964, 83.92949	15 KM/Hr	101.14 km
16	Turn	Medium	26.29770, 83.96024	30 KM/Hr	104.50 km
17	Turn	Medium	26.29598, 83.96354	30 KM/Hr	104.97 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
18	Turn	Medium	26.29648, 83.97616	30 KM/Hr	106.12 km
19	Blind Spot	Blind Spot	26.28026, 84.02775	10 KM/Hr	111.81 km
20	Blind Spot	Blind Spot	26.27075, 84.02401	10 KM/Hr	112.77 km

Emergency Locations

Found: 5 hospital(s), 1 clinic(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	Prakash Hospital	26.6957341, 83.4807387	30 km/h	Medium	33.97 km
2	hospital	Deoria Eye Hospital	26.5011867, 83.7750448	30 km/h	Medium	71.42 km
3	hospital	Mahadeva Hospital and Maternity Home	26.4993, 83.7754301	30 km/h	Medium	71.42 km
4	hospital	Aditya Hospital, Deoria	26.501938, 83.774963	30 km/h	Medium	71.42 km
5	hospital	Sanjeevani Hospital, Deoria	26.4796329, 83.780432	30 km/h	Medium	73.99 km
6	clinic	Savitri Nursing Home, Deoria	26.4716292, 83.7854545	30 km/h	Medium	74.36 km

Crowded Spots

Found: 1 college(s), 1 school(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
1	college	BRD PG college	26.5161416, 83.7720277	30 km/h	Medium	69.25 km

	type	name	coordinates	speed_limit	risk_level	Distance from Start
7	school	SKP SAINIK PUBLIC SCHOOL	26.3237671, 83.8958075	30 km/h	Medium	95.70 km

Route Photos of Risky Spots

Risk Type: Blind Spot
Risk Level: Blind Spot
Speed Limit: 10 KM/Hr
Distance from Start: 2.16 km
Coordinates: 26.75126, 83.22476

Risk Type: Blind Spot
Risk Level: Blind Spot
Speed Limit: 10 KM/Hr
Distance from Start: 4.22 km
Coordinates: 26.75353, 83.20457

Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 4.27 km

Coordinates: 26.75377, 83.20465

Risk Type: Roundabout

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 8.13 km

Coordinates: 26.74681, 83.25111

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 33.24 km

Coordinates: 26.69741, 83.47552

Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 33.41 km

Coordinates: 26.69857, 83.47481

Risk Type: U-Turn

Risk Level: High

Speed Limit: 10 KM/Hr

Distance from Start: 33.41 km

Coordinates: 26.698439, 83.4747268

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 47.38 km

Coordinates: 26.63752, 83.59723

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 47.44 km

Coordinates: 26.63761, 83.59795

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 100.10 km

Coordinates: 26.29409, 83.92225

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 100.35 km

Coordinates: 26.29365, 83.92376

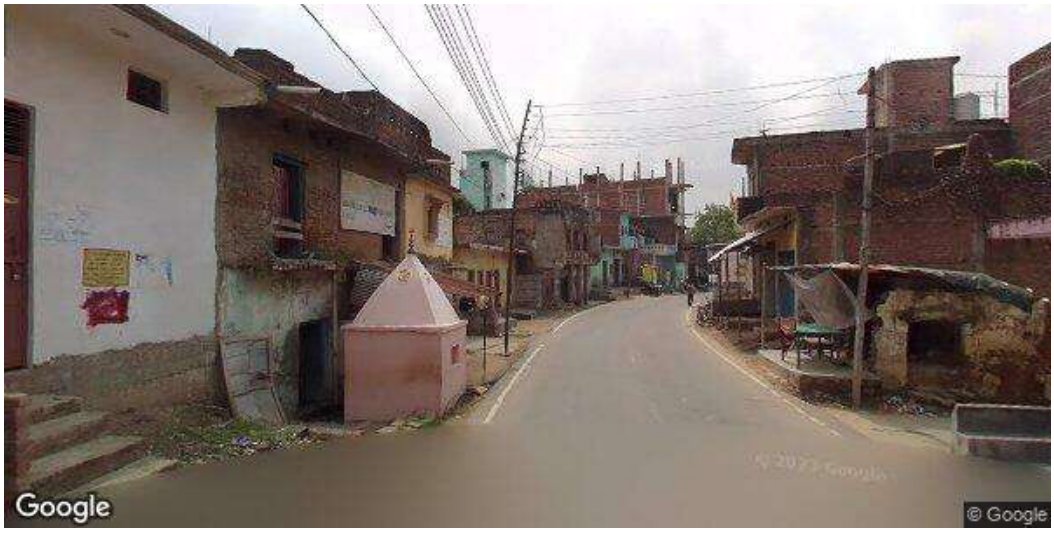
Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 101.14 km

Coordinates: 26.28964, 83.92949



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 104.50 km

Coordinates: 26.29770, 83.96024

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 104.97 km

Coordinates: 26.29598, 83.96354

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 106.12 km

Coordinates: 26.29648, 83.97616

Download Reports

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