



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO SHRI UMAPATI INDANE

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

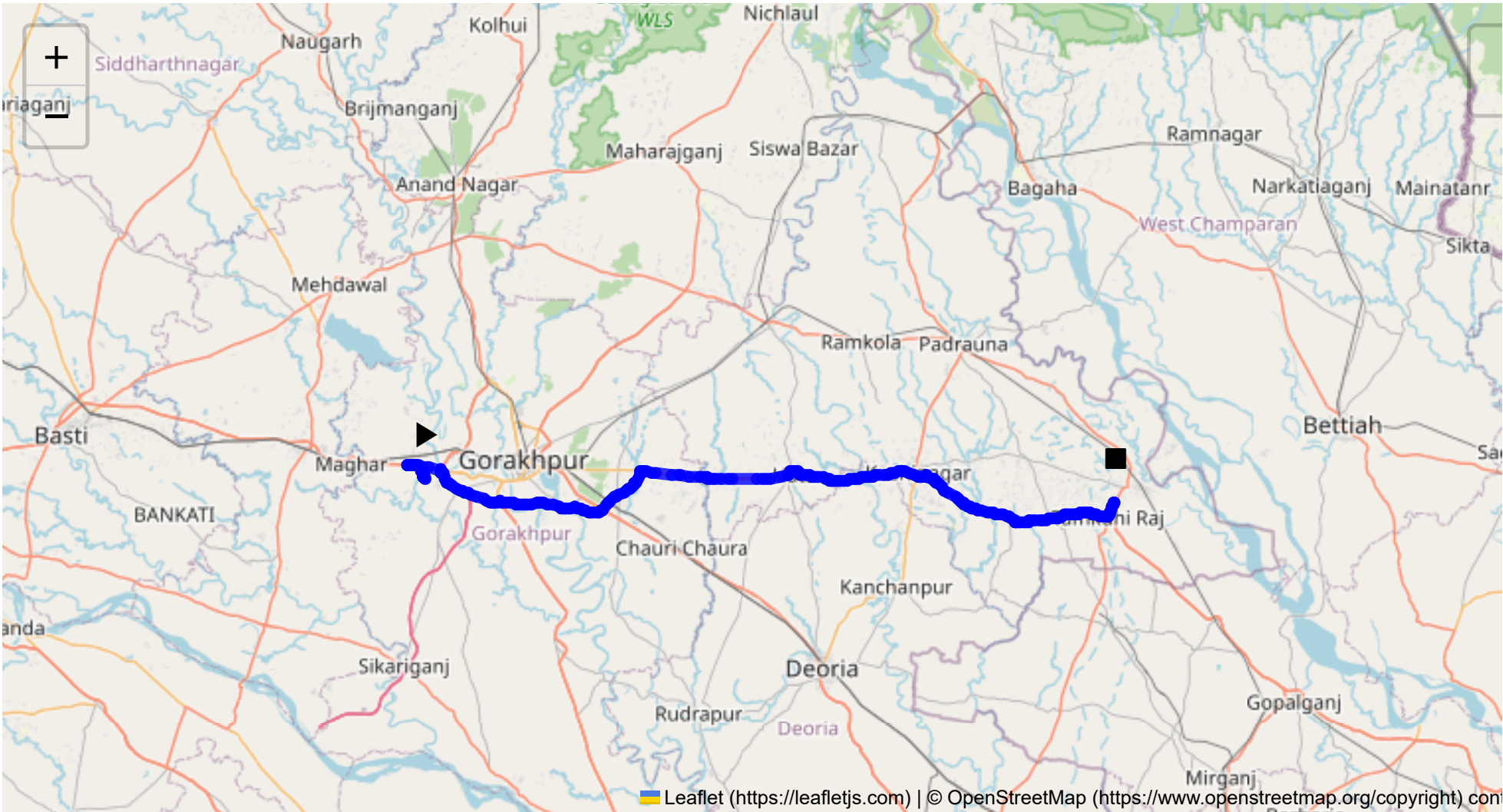
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 111.14 km
Estimated Duration: 2.2 hours
Adjusted Duration (Heavy Vehicle): 2.7 hours
Start: (26.735959, 83.229398)
End: (26.706963, 84.18857)

Welcome to the Journey Risk Management Study

Route Safety Analysis: Sahjanwa to Dhuria Kot

1. Overview of the Route Map:

- The route begins at P6PH+9Q in the GIDA Industrial Area Phase 1, moving northwest towards 01 Zero Point, Kaalesar, then to PWV2+R4P, Jhugwa, and finally arriving at P54Q+8HF, Dhuria Kot. Its

span of approximately 111.14 kilometers involves major highways and rural roads, with a mix of industrial, suburban, and rural landscapes.

2. Typical Weather Conditions and Potential Weather-Related Hazards:

- The region experiences a subtropical climate with hot summers, a monsoon season, and cool winters. The monsoon period (June to September) can bring heavy rainfall, leading to potential flooding and road blockages. Fog may be common during winter mornings (December-January), affecting visibility.

3. Traffic Patterns:

- Peak traffic occurs during morning (8:00-10:00 AM) and evening (5:00-7:00 PM) rush hours. Congestion is likely near industrial areas and major intersections, particularly near Kaalesar and Sahjanwa. Roadwork and local events can cause sporadic delays.

4. Assessment of Road Quality and Infrastructure:

- Main highways are generally well-maintained but secondary roads, especially in rural sections, may have potholes, uneven surfaces, and limited signage. Road quality can deteriorate during the rainy season due to poor drainage.

5. Suggestions for Alternative Routes for Emergencies:

- In case of an emergency or roadblock, consider rerouting through NH27 or NH28 as alternatives, depending on the blockage's location. Local roads, while not always optimal, can provide detours around smaller incidents.

6. Summary of Local Regulations:

- Uttar Pradesh has strict regulations concerning the transport of hazardous materials, including restrictions during school hours and urban peak times. Drivers should carry the necessary permits and adhere to posted speed limits for cargo vehicles.

7. Overview of Historical Incidents:

- There have been occasional incidents involving heavy vehicles, usually related to poor road conditions and weather-induced hazards such as fog and rain. Notably, several accidents near Kaalesar were attributed to sharp turns and slippery roads.

8. Environmental Considerations and Sensitive Areas:

- The route traverses agricultural zones and near populated villages, necessitating caution to avoid spillage and damage. Environmental concerns also highlight the need for careful handling of hazardous materials, particularly during monsoon periods.

9. Analysis of Communication Coverage:

- Generally good mobile coverage across the route, with potential dead zones in more rural sections between Kaalesar and Jhugwa. Satellite phones or offline navigation aids are recommended for uninterrupted communication.

10. Estimated Emergency Response Times:

- Response times are quicker in urban and suburban sections, approximately 20-30 minutes. Rural segments may experience delays up to 45 minutes or more depending on road conditions and weather.

11. Overall Summary of Risk Assessment:

- The route presents moderate risk due to potential weather and road quality issues; however, with proper planning and adherence to local regulations, these risks can be mitigated. Key precautions include weather monitoring, route familiarity, and maintaining communication. Awareness of peak traffic periods and alternative path planning is crucial for timely and safe transportation.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
1	Turn	High	26.73746, 83.22938	15 KM/Hr	0.14 km
2	Blind Spot	Blind Spot	26.73791, 83.22625	10 KM/Hr	0.47 km
3	Turn	High	26.74524, 83.22746	15 KM/Hr	1.16 km
4	Turn	High	26.74654, 83.22390	15 KM/Hr	1.65 km
5	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.16 km
6	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.22 km
7	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
8	Turn	High	26.68889, 84.17995	15 KM/Hr	108.72 km
9	Turn	High	26.70691, 84.18927	15 KM/Hr	110.95 km

Emergency Locations

Found: 2 hospital(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	RG Hospital	26.7372178, 83.5824469	30 km/h	Medium	45.79 km
1	hospital	Pawanagar Mahavir Hospital and Research Center	26.6832018, 84.0485296	30 km/h	Medium	95.14 km

Crowded Spots

Route Photos of Risky Spots



Risk Type: Blind Spot
Risk Level: Blind Spot
Speed Limit: 10 KM/Hr
Distance from Start: 2.16 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: High

Speed Limit: 15 KM/Hr

Distance from Start: 108.72 km

Coordinates: 26.68889, 84.17995

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