JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO PRABHU JI INDANE GRA

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

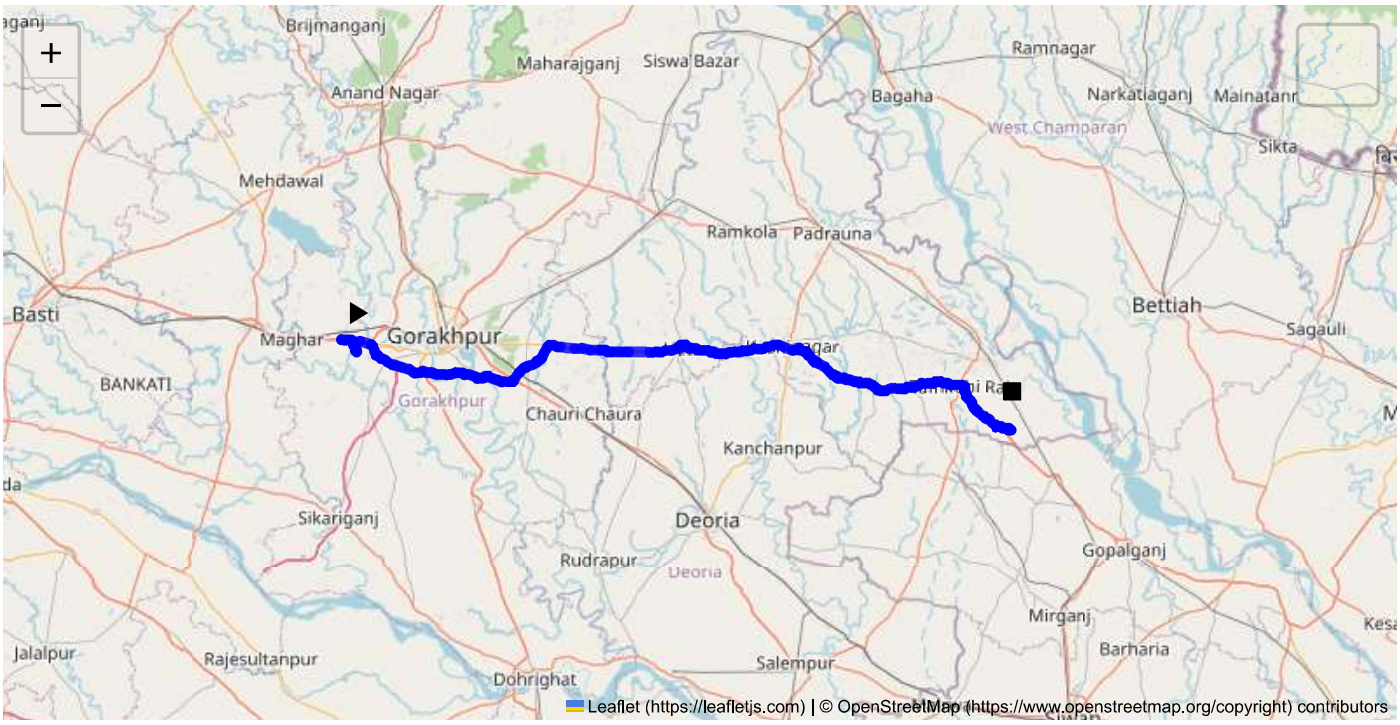
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 120.37 km
Estimated Duration: 2.4 hours
Adjusted Duration (Heavy Vehicle): 2.9 hours
Start: (26.735959, 83.229398)
End: (26.62487, 84.259788)

Welcome to the Journey Risk Management Study

1. Overview of the Route Map

The route from GIDA Industrial Area Phase 1, Sahjanwa to Mohan Basdila, is approximately 120.37 kilometers. It involves a combination of national highways and state roads, moving primarily through

rural and semi-urban areas. Major roads include NH27 and SH1, which are crucial segments of this journey.

2. Typical Weather Conditions and Potential Weather-Related Hazards

Weather in Uttar Pradesh varies seasonally:

- **Summer** (March to June): High temperatures can cause road surface distress.
- **Monsoon** (July to September): Heavy rains may lead to waterlogging and flooding, especially in low-lying areas, potentially causing reduced visibility and slippery surfaces.
- **Winter** (December to February): Fog is prevalent, reducing visibility, particularly in early morning and late evening.

3. Analysis of Traffic Patterns

- **Peak Hours**: Generally, traffic is heavier in the morning (7:00 AM - 10:00 AM) and evening (5:00 PM - 8:00 PM).
- **Congestion-Prone Areas**: Urban centers and market areas, particularly around Gorakhpur, as well as intersections with local roads.

4. Assessment of Road Quality and Infrastructure

- **Highways (NH27)**: Mostly in good condition, but ongoing construction and repair activities can cause temporary diversions and slowdowns.
- **State and rural roads (SH1)**: Varying quality, with potential for potholes and uneven surfaces that might challenge heavy vehicles.

5. Suggestions for Alternative Routes for Emergencies

- **NH28 and link to SH74**: As an alternative, this offers potential detours avoiding major urban congestion.
- **Minor district roads**: Use should be minimized for heavy trucks unless signposted as preferable alternatives.

6. Summary of Local Regulations Affecting Hazardous Material Transport

Transport of hazardous materials is regulated under the Motor Vehicles Act 1988 and must comply with safety and labeling requirements. Night travel might be restricted in some areas, and certain routes may have designated rest stops and check posts for hazardous materials.

7. Overview of Historical Incidents

- Historical data indicates occasional accidents involving trucks due mainly to overspeeding and poor visibility. Monsoon periods tend to show increased incident rates due to slippery roads and flooding.

8. Environmental Considerations and Sensitive Areas

- **Protected Areas**: Any wildlife zones or protected areas need careful navigation to avoid ecological impact.
- **Water Bodies**: Crossing over rivers via bridges can present environmental risks in the event of spills.

9. Analysis of Communication Coverage

- Major highways generally have good mobile network coverage.
- Potential dead zones: Remote rural areas might have patchy network service, impacting communication capabilities.

10. Estimated Emergency Response Times

- **Urban Areas**: Approximately 30-45 minutes due to proximity to services.
- **Rural Areas**: Response time could extend to 1-2 hours depending on location and accessibility.

11 (Adjusted for numbering). Overall Summary of Risk Assessment

- **Major Risks**: Weather conditions (monsoon floods, fog), road quality on minor routes, and communication dead zones.
- **Minimized Risks**: Proper planning ('avoid travel during peak traffic and extreme weather), trip timing, route validation before departure.
- **Regulatory Compliance**: Adherence to hazardous material transport regulations is crucial, requiring regular checks by operators.
- **Emergency Preparedness**: Maintain updated contact lists of local emergency services, coupled with GPS systems for efficient rerouting.

Overall, while the route is manageable, attention must be paid to weather conditions, road quality, and regulatory compliance to ensure a safe and efficient journey for transporting hazardous materials.

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

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
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	Medium	26.73382, 83.79538	30 KM/Hr	67.77 km
9	Turn	High	26.63138, 84.23892	15 KM/Hr	117.72 km
10	Turn	Medium	26.63141, 84.23901	30 KM/Hr	117.82 km
11	Blind Spot	Blind Spot	26.62807, 84.25804	10 KM/Hr	119.68 km
12	Turn	High	26.62594, 84.25787	15 KM/Hr	119.89 km
13	Turn	Medium	26.62575, 84.25813	30 KM/Hr	120.02 km
14	Turn	High	26.62553, 84.25910	15 KM/Hr	120.11 km
15	Turn	High	26.62507, 84.25908	15 KM/Hr	120.17 km

Emergency Locations

Found: 2 hospital(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	Star Hospital, Kushinagar	26.6831917, 84.0478785	30 km/h	Medium	95.16 km
1	hospital	Pawanagar Mahavir Hospital and Research Center	26.6832018, 84.0485296	30 km/h	Medium	95.16 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: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 67.77 km

Coordinates: 26.73382, 83.79538

Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 117.72 km

Coordinates: 26.63138, 84.23892

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 117.82 km

Coordinates: 26.63141, 84.23901

Download Reports

Download Excel Report

Download Interactive Map