



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO DEOPOKHAR 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

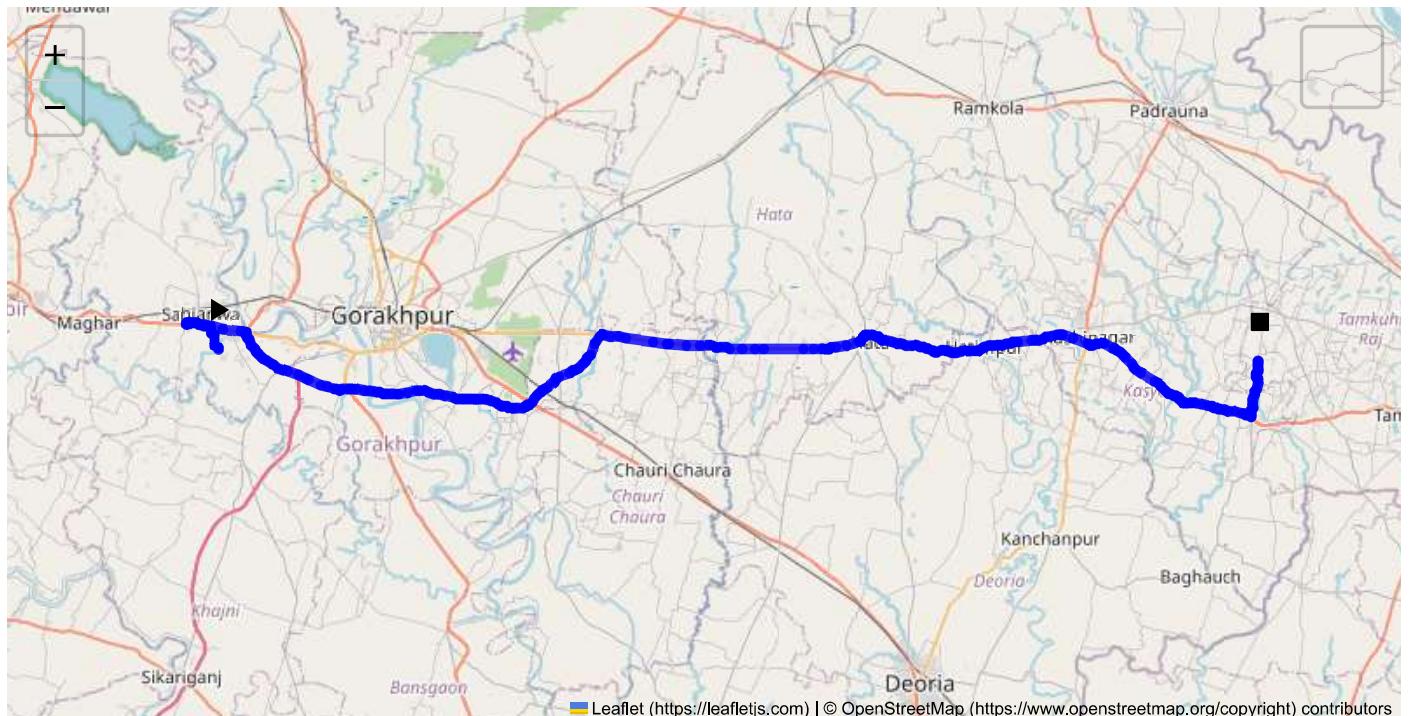
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 99.23 km
Estimated Duration: 2.0 hours
Adjusted Duration (Heavy Vehicle): 2.5 hours
Start: (26.735959, 83.229398)
End: (26.726856, 84.04894)

Welcome to the Journey Risk Management Study

Route Overview

The route from P6PH+9Q GIDA Industrial Area Phase 1, Sahjanwa, to P2GX+WPM, Deo Pokhar covers approximately 99.23 kilometers. The journey primarily involves traveling across regional roads and

highways, notably including NH27 and local roads. The drive typically takes about 1.96 hours under normal conditions for heavy vehicles, particularly those carrying hazardous materials.

Typical Weather Conditions and Hazards

The region experiences a subtropical climate with potential weather-related challenges:

- **Summer (April - June):** Temperatures can exceed 40°C (104°F), risking heat-related vehicle stress and dehydration for drivers.
- **Monsoon (July - September):** Heavy rains can lead to waterlogging and reduced visibility, increasing the risk of hydroplaning and accidents.
- **Winter (December - February):** Fog is common, particularly in the early mornings and late evenings, which reduces visibility and may delay travel.

Traffic Patterns

- **Peak Hours:** Congestion is most likely during morning (8:00-10:00 AM) and evening (4:00-7:00 PM) hours, particularly near major towns and junctions such as Gorakhpur.
- **Congestion-Prone Areas:** The Gorakhpur region, known for heavy traffic, may pose delays. Roadwork or local events could exacerbate conditions without prior notice.

Road Quality and Infrastructure

- **NH27:** Generally well-maintained, with periodic construction zones which are subject to change.
- **Local Roads:** Quality may vary, with some segments potentially narrow or under-maintained, especially after heavy rains.
- **Bridges and Tunnels:** Ensure load limits are adhered to, as abrupt weight changes may occur.

Alternative Routes for Emergencies

In case primary routes become inaccessible:

- **Alternate Route via NH730:** This can serve as a bypass, particularly if NH27 faces significant delays.
- **Local Detours:** Contact local transport authorities for current detours suitable for heavy vehicles.

Local Regulations on Hazardous Materials

- **Permits:** Necessary for the transport of hazardous materials; ensure these are up-to-date.
- **Movement Restrictions:** Some areas may have time-restricted access for heavy vehicles carrying hazardous materials, especially in urban zones.

Historical Incidents

- **Recent Accidents:** Review local traffic reports for any history of incidents involving heavy vehicles. Historical data indicates sporadic incidents, often weather-related or due to navigational errors.
- **Common Risks:** Overloading and improper handling are frequent causes.

Environmental Considerations

- **Protected Areas:** Avoid national parks and wildlife sanctuaries, complying with signage and legal restrictions.
- **Pollution-sensitive Zones:** Minimize noise and emissions through urban centers; adhere to anti-idling laws.

Communication Coverage

- **Coverage Quality:** Good general coverage on major highways; potential dead zones in rural or less populated areas.
- **Precautions:** Ensure GPS and communication devices are up-to-date and consider sharing travel itineraries with base control for regular checkpoints.

Emergency Response Times

- **Highway Access:** Typically quicker response times along NH27 due to better road quality and proximity to urban centers.
- **Rural Segments:** Delays can occur; estimated arrival may range from 30 minutes to over an hour depending on the remoteness.

Overall Summary of Risk Assessment

The route for transporting hazardous materials from Sahjanwa to Deo Pokhar features a mix of conditions:

- **Risk Factors:** Weather impacts, road quality variations, and congestion are key considerations.
- **Recommendations:** Timely maintenance of vehicle, adherence to regulations, and constant communication to adjust to real-time road and weather conditions are crucial.
- **Safety Precautions:** Drivers should be trained extensively on route awareness and emergency protocols, with contingency plans for road diversions and communication failures.

For a comprehensive operational strategy, routine updates on traffic reports, weather advisories, and regulatory changes should be disseminated to all drivers.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
1	Turn	High	26.73746, 83.22938	15 KM/Hr	0.15 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	8.79 km
8	Blind Spot	Blind Spot	26.68808, 84.04354	10 KM/Hr	94.61 km
9	Turn	High	26.71438, 84.04953	15 KM/Hr	97.54 km
10	Turn	Medium	26.71723, 84.04801	30 KM/Hr	97.96 km
11	Turn	High	26.72080, 84.04981	15 KM/Hr	98.44 km
12	Blind Spot	Blind Spot	26.72694, 84.04924	10 KM/Hr	99.10 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	45.83 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: 8.79 km

Coordinates: 26.74681, 83.25111



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 94.61 km

Coordinates: 26.68808, 84.04354

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