



# IndianOil

## JOURNEY RISK MANAGEMENT (JRM) STUDY

### Gorakhpur LPG BP TO SAVVY 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: 41.64 km**  
**Estimated Duration: 1.2 hours**  
**Adjusted Duration (Heavy Vehicle): 1.4 hours**  
**Start: (26.735959, 83.229398)**  
**End: (26.785486, 83.417778)**

Welcome to the Journey Risk Management Study

Route Overview

The route from GIDA Industrial Area Phase 1, Sahjanwa to Vishwakarmapuram, Gorakhpur covers approximately 41.64 kilometers. This route primarily utilizes NH 24, passing through Kaalesar and Deokali. The journey takes around 1.15 hours for heavy vehicles carrying hazardous materials. The roads connect industrial and urban areas, necessitating caution due to both heavy and light vehicle traffic.

# Weather Conditions and Potential Hazards

The region experiences a subtropical climate with variations throughout the year:

- **Summer (March to June):** High temperatures (up to 40°C), potential for heat-related vehicle issues.
- **Monsoon (July to September):** Heavy rains can lead to flooding, waterlogging, and reduced visibility.
- **Winter (December to February):** Fog is common, potentially causing low visibility and adding risk to navigation.

# Traffic Patterns

- **Peak Hours:** The busiest times are typically during morning (7:00-10:00 AM) and evening (5:00-8:00 PM) commutes.
- **Congestion-Prone Areas:** Entry and exit points near NH 24 and urban intersections, especially near Deokali and Gorakhpur city center, often experience slow traffic.

# Road Quality and Infrastructure

- **NH 24:** Generally well-maintained with clear markings and signage, but periodic road work could cause temporary disruptions.
- **Urban Roads:** Some areas may have potholes or undergo construction, requiring careful navigation especially near industrial sites.

# Alternative Routes

In case of emergencies, alternative routes include local roads parallel to NH 24. While these may be less direct, they can help bypass major congestion or accidents.

# Local Regulations

Transport of hazardous materials is regulated, encompassing restrictions during certain hours in urban areas and requirements for appropriate signage and containment systems. Compliance with state and national road transport regulations is essential.

# Historical Incidents

Due to the industrial nature of the route, there have been occasional incidents involving heavy vehicles, typically attributed to poor visibility or inadequate vehicle maintenance. Proactive safety checks are advised.

# Environmental Considerations

The route passes through some environmentally sensitive areas. It is critical to adhere to regulations regarding emission controls and noise pollution, especially near residential and agricultural regions.

# Communication Coverage



Most of the route has decent mobile network coverage. Potential dead zones might exist in more rural or heavily forested segments, particularly around Kaalesar. Planning for communication blackouts is advised.

## Emergency Response Times

- Urban Areas:** Emergency response is quicker due to proximity to services - approximately 15-30 minutes.
- Rural Segments:** May take 30-45 minutes due to distance from emergency services.

## Overall Summary of Risk Assessment

While the route is primarily safe and well-trodden by industrial transport, risks include weather-related hazards during monsoons and winters, congestion during peak hours, and road quality issues in certain urban areas. With adequate preparatory measures, like adhering strictly to local transport regulations and ensuring vehicle maintenance, these risks can be mitigated effectively. Constant communication and a familiarity with alternative routes will help in emergent situations, ensuring a balance between safety and timely delivery.

### Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
1	Turn	High	26.73690, 83.22947	15 KM/Hr	0.05 km
2	Turn	High	26.73697, 83.22939	15 KM/Hr	0.11 km
3	Turn	High	26.73746, 83.22938	15 KM/Hr	0.15 km
4	Blind Spot	Blind Spot	26.73791, 83.22625	10 KM/Hr	0.48 km
5	Turn	Medium	26.74524, 83.22746	30 KM/Hr	1.28 km
6	Turn	Medium	26.74532, 83.22740	30 KM/Hr	1.31 km
7	Turn	High	26.74654, 83.22390	15 KM/Hr	1.65 km
8	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.17 km
9	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.23 km
10	Turn	High	26.75381, 83.20466	15 KM/Hr	4.30 km
11	Turn	High	26.74708, 83.24935	15 KM/Hr	8.67 km
12	Turn	Medium	26.74714, 83.24943	30 KM/Hr	8.82 km
13	Turn	Medium	26.74707, 83.25103	30 KM/Hr	8.98 km
14	Turn	Medium	26.74765, 83.25136	30 KM/Hr	9.05 km
0	Roundabout	High	26.86209, 83.31517	15 KM/Hr	24.86 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
15	Blind Spot	Blind Spot	26.80409, 83.35261	10 KM/Hr	33.12 km
16	Turn	Medium	26.80709, 83.36056	30 KM/Hr	33.99 km
17	Blind Spot	Blind Spot	26.80943, 83.35981	10 KM/Hr	34.24 km
18	Turn	High	26.80940, 83.35978	15 KM/Hr	34.28 km
19	Turn	High	26.80713, 83.36015	15 KM/Hr	34.51 km
20	Turn	Medium	26.80697, 83.36048	30 KM/Hr	34.56 km
21	Turn	High	26.80680, 83.36056	15 KM/Hr	34.58 km
22	Turn	Medium	26.80654, 83.36043	30 KM/Hr	34.61 km
23	Turn	High	26.80646, 83.36043	15 KM/Hr	34.63 km
24	Turn	Medium	26.80619, 83.36090	30 KM/Hr	34.68 km
25	Blind Spot	Blind Spot	26.78025, 83.40418	10 KM/Hr	40.09 km
26	Turn	High	26.78569, 83.41738	15 KM/Hr	41.43 km

## Emergency Locations

Found: 10 hospital(s), 2 clinic(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	Kanha Hospital	26.8035, 83.352362	30 km/h	Medium	33.12 km
1	hospital	Khetan Hospital	26.799969, 83.3540976	30 km/h	Medium	33.12 km
4	hospital	Saanvi Health Care Centre	26.8027171, 83.3810965	30 km/h	Medium	36.56 km
2	clinic	Rama Fracture Clinic and Nursing Home	26.7979764, 83.3804677	30 km/h	Medium	36.80 km
3	hospital	Divyaman Hospital	26.7965627, 83.3825947	30 km/h	Medium	37.10 km
6	hospital	Lokpriya Hospital	26.7956989, 83.3846463	30 km/h	Medium	37.30 km
7	clinic	Smita Nursing Home	26.7916401, 83.3873704	30 km/h	Medium	37.61 km
5	hospital	Jansewa Hospital	26.7959247, 83.389322	30 km/h	Medium	37.73 km

	type	name	coordinates	speed_limit	risk_level	Distance from Start
8	hospital	Astha Hospital, Gorakhpur	26.7943878, 83.3922892	30 km/h	Medium	38.10 km
9	hospital	Fatima Hospital, Gorakhpur	26.7872957, 83.3999861	30 km/h	Medium	38.88 km
10	hospital	RNSN Sewa Sadan Hospital	26.7825864, 83.4099165	30 km/h	Medium	40.71 km
11	hospital	Kamala Hospital and Trauma Centre	26.7834614, 83.412825	30 km/h	Medium	41.00 km

Crowded Spots

Route Photos of Risky Spots



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 2.17 km

Coordinates: 26.75126, 83.22476





**Risk Type:** Blind Spot  
**Risk Level:** Blind Spot  
**Speed Limit:** 10 KM/Hr  
**Distance from Start:** 4.23 km  
**Coordinates:** 26.75353, 83.20457



**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Distance from Start:** 4.30 km  
**Coordinates:** 26.75381, 83.20466





**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Distance from Start:** 8.67 km  
**Coordinates:** 26.74708, 83.24935



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Distance from Start:** 8.82 km  
**Coordinates:** 26.74714, 83.24943



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Distance from Start:** 8.98 km  
**Coordinates:** 26.74707, 83.25103



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Distance from Start:** 9.05 km  
**Coordinates:** 26.74765, 83.25136





**Risk Type:** Roundabout

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 24.86 km

**Coordinates:** 26.86209, 83.31517



**Risk Type:** Blind Spot

**Risk Level:** Blind Spot

**Speed Limit:** 10 KM/Hr

**Distance from Start:** 33.12 km

**Coordinates:** 26.80409, 83.35261





**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Distance from Start:** 33.99 km  
**Coordinates:** 26.80709, 83.36056



**Risk Type:** Blind Spot  
**Risk Level:** Blind Spot  
**Speed Limit:** 10 KM/Hr  
**Distance from Start:** 34.24 km  
**Coordinates:** 26.80943, 83.35981



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 34.28 km

**Coordinates:** 26.80940, 83.35978



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 34.51 km

**Coordinates:** 26.80713, 83.36015





**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Distance from Start:** 34.56 km

**Coordinates:** 26.80697, 83.36048



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 34.58 km

**Coordinates:** 26.80680, 83.36056





**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Distance from Start:** 34.61 km  
**Coordinates:** 26.80654, 83.36043



**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Distance from Start:** 34.63 km  
**Coordinates:** 26.80646, 83.36043



**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Distance from Start:** 34.68 km

**Coordinates:** 26.80619, 83.36090



**Risk Type:** Blind Spot

**Risk Level:** Blind Spot

**Speed Limit:** 10 KM/Hr

**Distance from Start:** 40.09 km

**Coordinates:** 26.78025, 83.40418





**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 41.43 km

**Coordinates:** 26.78569, 83.41738

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