



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO KUSHINAGAR POLICE GA

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

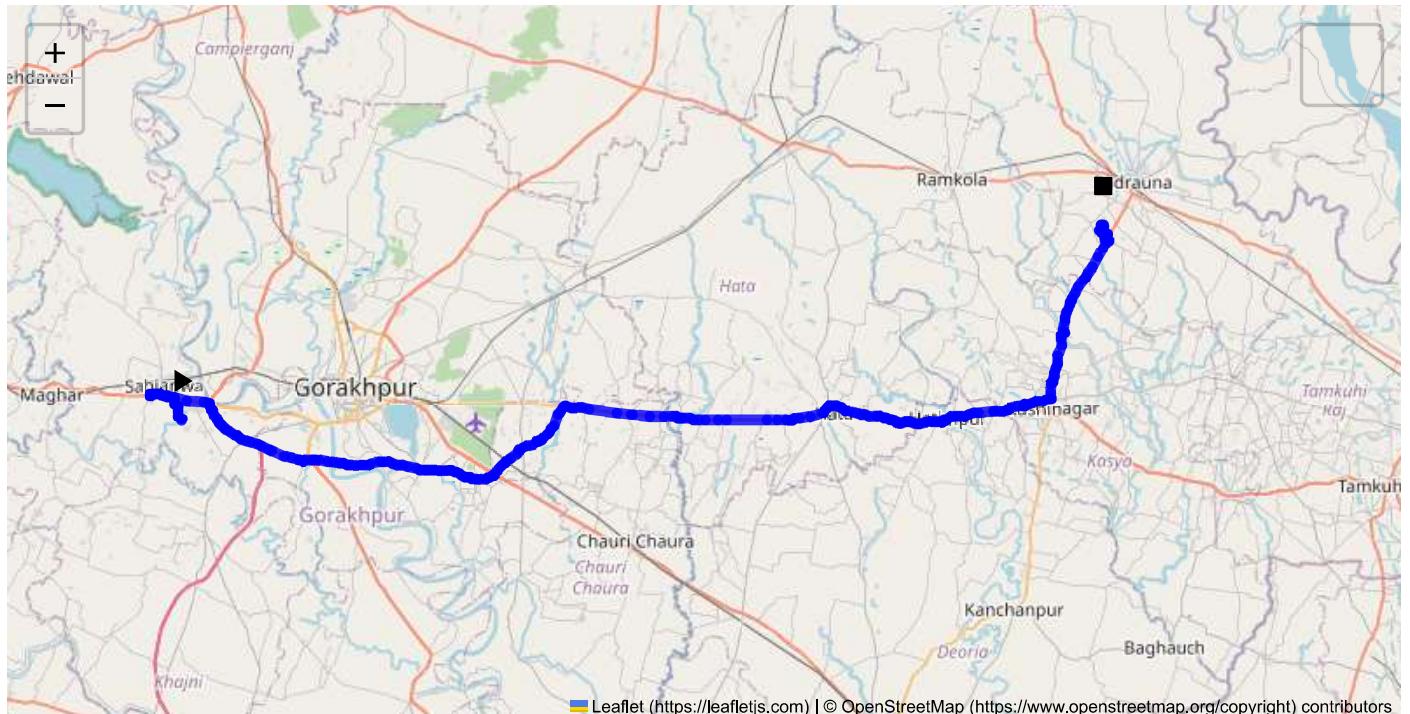
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 95.47 km
Estimated Duration: 2.0 hours
Adjusted Duration (Heavy Vehicle): 2.5 hours
Start: (26.735959, 83.229398)
End: (26.873509, 83.955049)

Welcome to the Journey Risk Management Study

1. Overview of the Route Map

The route from P6PH+9Q, GIDA Industrial Area Phase 1, Sahjanwa to VXF4+C27, Sugahi spans approximately 95.47 kilometers. It primarily involves travel along NH27 and SH1, which are main

highways facilitating truck and heavy vehicle movement. These highways are crucial corridors connecting various key districts in Uttar Pradesh.

2. Typical Weather Conditions and Potential Weather-Related Hazards

Uttar Pradesh experiences a subtropical climate with hot summers, significant monsoon rains, and cool winters. Potential weather-related hazards include:

- **Monsoon Season (July to September):** Heavy rainfall leading to waterlogging and slippery roads.
- **Summer (April to June):** High temperatures can lead to driver fatigue and potential tire blowouts.
- **Winter Fog (December to January):** Reduced visibility can cause accidents.

3. Analysis of Traffic Patterns

- **Peak Hours:** Typically between 8:00 AM - 10:00 AM and 5:00 PM - 8:00 PM. Traffic congestion is common during these hours, especially near urban areas and marketplaces.
- **Congestion-Prone Areas:** Expect delays near Gorakhpur and densely populated towns along the route due to commercial activities.

4. Assessment of Road Quality and Infrastructure

- **NH27 and SH1:** Generally well-maintained with multiple lanes. However, some segments may have potholes or uneven surfaces due to heavy vehicle use.
- **Local Roads:** May experience poor maintenance, making navigation difficult for larger vehicles.

5. Suggestions for Alternative Routes for Emergencies

In case of road blockages or severe traffic, consider:

- **NH24 to SH1:** A slightly longer route but may provide an alternative during emergencies.
- **Local Rural Roads:** May offer detours but require caution due to variable road conditions.

6. Summary of Local Regulations Affecting Hazardous Material Transport

- **Permits Required:** Ensure all permits for hazardous material transport are secured.
- **Time Restrictions:** Some areas may have time-specific entry for heavy vehicles, typically to avoid peak traffic.

7. Overview of Historical Incidents

While specific incident data might not be publicly detailed, heavy vehicle accidents in Uttar Pradesh often result from driver fatigue, vehicle overloading, and poor road conditions. Stay updated with local news for

incident reports.

8. Environmental Considerations and Sensitive Areas

- Forest and Wildlife Areas:** Ensure no spillage or contamination occurs near sensitive zones prevalent in the region.
- Agricultural Fields:** Take care to avoid any hazardous spills that could affect local agriculture.

9. Analysis of Communication Coverage

- Urban Areas:** Generally good communication coverage.
- Rural Areas:** Potential dead zones, especially away from main highways. Ensure communication devices are checked prior to departure.

10. Estimated Emergency Response Times

- Urban and Highway Areas:** Quick response expected within 30-45 minutes.
- Rural and Remote Areas:** Responses may take longer, often upwards of 60 minutes or more.

12. Overall Summary of Risk Assessment

This route includes risks primarily from weather conditions, traffic congestion, and varied road quality. Hazards are amplified by potential communication gaps and delayed emergency response in rural sections. Proper planning, adherence to regulations, and real-time traffic updates are crucial for safe and timely transport of hazardous materials on this route. Regularly maintained vehicles and trained drivers will mitigate most preventable risks.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
2	Turn	High	26.73746, 83.22938	15 KM/Hr	0.15 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	8.79 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
9	Turn	Medium	26.74656, 83.25154	30 KM/Hr	9.04 km
10	Turn	Medium	26.74648, 83.25152	30 KM/Hr	9.05 km
11	Turn	Medium	26.74526, 83.53161	30 KM/Hr	41.16 km
12	Turn	High	26.74995, 83.91445	15 KM/Hr	80.03 km
13	Turn	Medium	26.79586, 83.92326	30 KM/Hr	85.24 km
14	Turn	Medium	26.79608, 83.92337	30 KM/Hr	85.28 km
15	Turn	Medium	26.79696, 83.92522	30 KM/Hr	85.46 km
16	Turn	Medium	26.79733, 83.92537	30 KM/Hr	85.52 km
17	Blind Spot	Blind Spot	26.86292, 83.95979	10 KM/Hr	93.72 km
1	Roundabout	High	26.86363, 83.95776	15 KM/Hr	93.87 km
18	Turn	High	26.86501, 83.95820	15 KM/Hr	94.09 km
19	Turn	High	26.86558, 83.95789	15 KM/Hr	94.19 km
20	Turn	High	26.86665, 83.95833	15 KM/Hr	94.30 km
21	Turn	Medium	26.86907, 83.95412	30 KM/Hr	94.76 km
22	Turn	High	26.86914, 83.95408	15 KM/Hr	94.83 km
23	Turn	Medium	26.87229, 83.95566	30 KM/Hr	95.16 km
24	Blind Spot	Blind Spot	26.87237, 83.95578	10 KM/Hr	95.22 km
25	Turn	High	26.87329, 83.95472	15 KM/Hr	95.35 km

Emergency Locations

Found: 2 hospital(s), 1 clinic(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	Gautam Budha National Hospital	26.744396, 83.9016042	30 km/h	Medium	78.43 km
1	clinic	Qazi Poly Clinic	26.7503799, 83.9126991	30 km/h	Medium	79.75 km
2	hospital	District Combined Hospital Kushinagar	26.8632735, 83.9553228	30 km/h	Medium	93.97 km

Crowded Spots

Route Photos of Risky Spots



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Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 2.16 km

Coordinates: 26.75126, 83.22476



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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: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 9.04 km

Coordinates: 26.74656, 83.25154



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 9.05 km

Coordinates: 26.74648, 83.25152



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Risk Type: Turn**Risk Level: Medium****Speed Limit: 30 KM/Hr****Distance from Start: 41.16 km****Coordinates: 26.74526, 83.53161**

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Risk Type: Turn**Risk Level: High****Speed Limit: 15 KM/Hr****Distance from Start: 80.03 km****Coordinates: 26.74995, 83.91445**



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 85.24 km

Coordinates: 26.79586, 83.92326



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 85.28 km

Coordinates: 26.79608, 83.92337



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 85.46 km

Coordinates: 26.79696, 83.92522



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 85.52 km

Coordinates: 26.79733, 83.92537



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 93.72 km

Coordinates: 26.86292, 83.95979



Risk Type: Roundabout

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 93.87 km

Coordinates: 26.86363, 83.95776



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 94.09 km

Coordinates: 26.86501, 83.95820



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 94.19 km

Coordinates: 26.86558, 83.95789



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 94.30 km

Coordinates: 26.86665, 83.95833



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 94.76 km

Coordinates: 26.86907, 83.95412



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 94.83 km

Coordinates: 26.86914, 83.95408



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 95.16 km

Coordinates: 26.87229, 83.95566



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 95.22 km

Coordinates: 26.87237, 83.95578



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 95.35 km

Coordinates: 26.87329, 83.95472

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