



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Salem Terminal TO RASU & CO

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

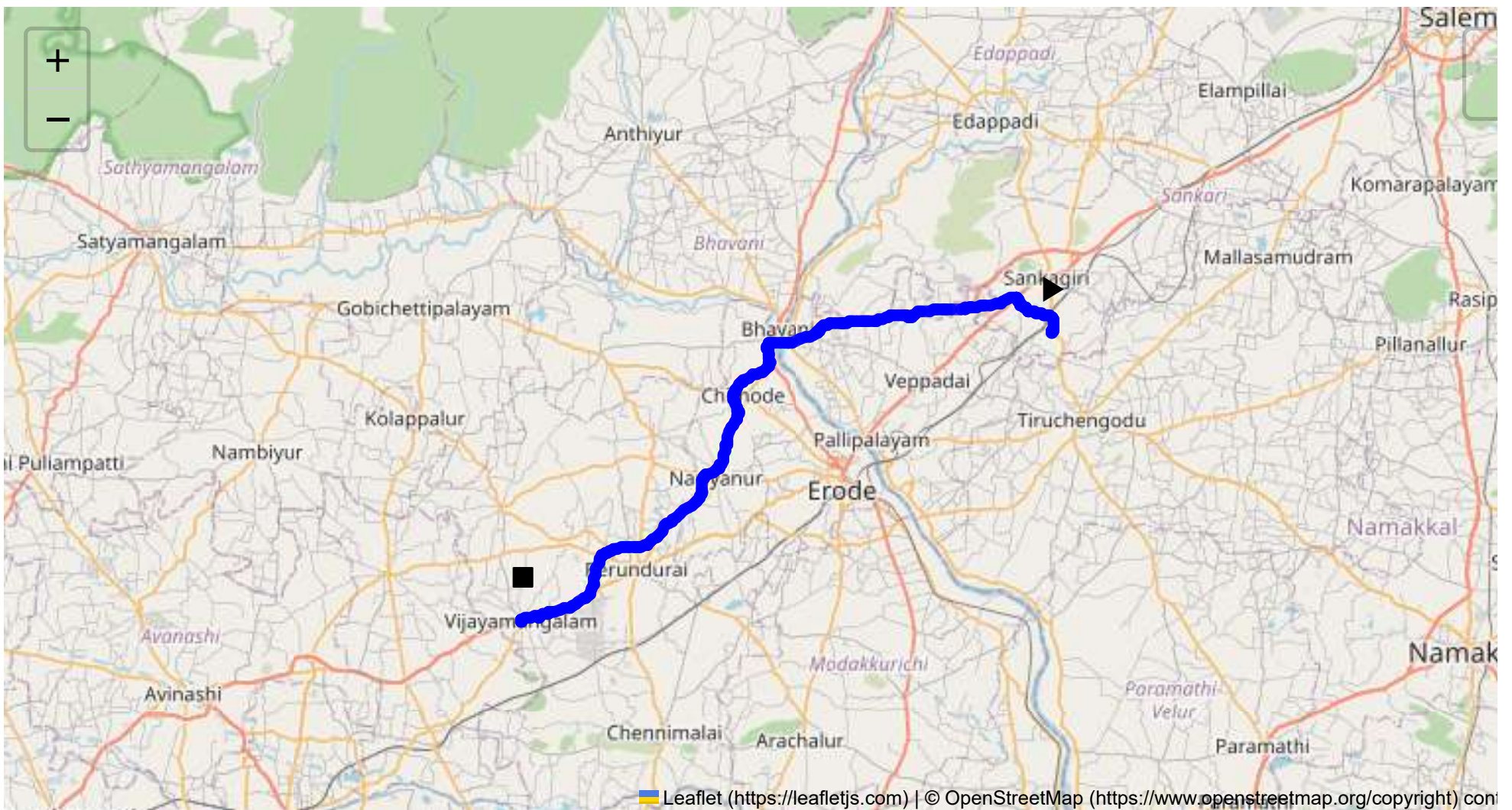
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 57.25 km
Estimated Duration: 1.1 hours
Adjusted Duration (Heavy Vehicle): 1.4 hours
Start: (11.4381, 77.8734)
End: (11.239998, 77.502663)



Risk Spots

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
0	Turn	11.43822, 77.87348	15 KM/Hr	0.01 km
1	Turn	11.43961, 77.87341	15 KM/Hr	0.14 km
2	Turn	11.44029, 77.87544	15 KM/Hr	0.31 km

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
3	Turn	11.44893, 77.87413	15 KM/Hr	1.36 km
4	Turn	11.45350, 77.85700	15 KM/Hr	3.34 km
5	Turn	11.45845, 77.85141	15 KM/Hr	4.12 km
6	Turn	11.46046, 77.85037	15 KM/Hr	4.37 km
7	Turn	11.46303, 77.84945	15 KM/Hr	4.66 km
8	Turn	11.45542, 77.81725	15 KM/Hr	8.38 km
9	Blind Spot	11.45634, 77.81673	10 KM/Hr	8.51 km
10	Blind Spot	11.44530, 77.72783	10 KM/Hr	18.67 km
11	Turn	11.29158, 77.58600	15 KM/Hr	45.08 km
12	Turn	11.29140, 77.58253	15 KM/Hr	45.44 km
13	Turn	11.29012, 77.56873	15 KM/Hr	46.98 km
14	Turn	11.24339, 77.51556	15 KM/Hr	55.47 km
15	Turn	11.24184, 77.50270	15 KM/Hr	56.97 km

Emergency Services

	type	name	coordinates	side_of_road
1	hospital	Government Hospital	11.4525596, 77.7749426	Opposite Side
3	hospital	Dhanvantri Multi Speciality Hospital	11.451362, 77.766602	Opposite Side
4	hospital	Dhanvanthri Hospital	11.4496712, 77.7593772	Opposite Side
5	hospital	J.K.K. Trust Hospital	11.4445841, 77.7307962	Driver's Side
7	hospital	Shri Sathyanarayana Hospital	11.4291297, 77.6913408	Driver's Side
9	hospital	Thanish Siddha Hospital	11.430003, 77.674964	Opposite Side
10	clinic	Harshitha Clinic	11.4313207, 77.674718	Opposite Side
11	hospital	Sri Kaalangi Siddhar Mooligai Vaithiya Nilayam	11.432369, 77.674894	Opposite Side
12	clinic	G.K Clinic	11.4297244, 77.6749715	Opposite Side
14	clinic	Erode Cancer Centre	11.3732, 77.649152	Opposite Side
28	hospital	Irt Hospital	11.2803603, 77.5644118	Driver's Side
32	clinic	Malar Clinic	11.2424525, 77.5043955	Opposite Side
33	hospital	R.P Hospital	11.2417652, 77.5037061	Driver's Side
34	clinic	Dr. Subburam Clinic	11.2417484, 77.5031796	Driver's Side
35	hospital	Dr. N Viswanathan Hospital	11.2412783, 77.5005502	Opposite Side
36	hospital	Vijayamangalm Government Hospital	11.2382827, 77.501687	Driver's Side

Rest Stops

	type	name	coordinates	side_of_road
0	fuel	SLOA Bunk - Unit II	11.4543854, 77.8052665	Driver's Side
2	restaurant	Canteen	11.4478386, 77.7705441	Driver's Side
6	fuel	Reliance	11.4325168, 77.6912865	Opposite Side
8	fuel	Indian Oil	11.4321177, 77.6765153	Opposite Side
13	fuel	KR Fuels - Auto LPG	11.4127737, 77.6747462	Driver's Side
15	hotel	Athithi cafe	11.3756993, 77.6516401	Driver's Side
16	restaurant	Athithi Cafe	11.3756705, 77.6516565	Driver's Side
17	restaurant	Canteen	11.3725755, 77.6466465	Opposite Side
18	restaurant	Kumki Restaurant	11.3523614, 77.644608	Driver's Side
19	parking	Kumki Restaurant	11.352414, 77.644492	Driver's Side
20	restaurant	Paradise Biriyani	11.3291744, 77.6297833	Driver's Side
21	hotel	Hotel Annachi	11.3020259, 77.600017	Opposite Side
22	hotel	Adayar Ananda Bhavan(a2b)	11.3018451, 77.599909	Opposite Side
23	restaurant	Ambur Star Biriyani	11.3017372, 77.5999546	Opposite Side
24	parking	NHAI parking	11.3030168, 77.6009269	Opposite Side
25	restaurant	Arukkaniyammal Mess	11.2982771, 77.5967424	Opposite Side
26	fuel	HP	11.2909675, 77.5815262	Driver's Side
27	cafe	Backery and Cafe	11.2893987, 77.565338	Opposite Side
29	fuel	Reliance	11.2575595, 77.5511245	Driver's Side
30	fuel	Bharat Petroleum	11.255444, 77.5457729	Opposite Side
31	fuel	Auto LPG	11.2523222, 77.5400243	Opposite Side

Welcome to the Journey Risk Management Study

Route Overview

The route covers approximately 57.25 kilometers from Sangagiri to Vijayamangalam via Puthur, Padaiveedu, Service Road near Erode, and Perundurai Bypass. This generally takes about 1.14 hours for heavy vehicles carrying hazardous material.

1. Map Overview

The journey commences at Sangagiri, proceeding eastward towards Erode. Key waypoints include Puthur, Padaiveedu via Bhavani Main Road, and a stretch along Service Road near Perundurai, ultimately reaching Vijayamangalam.

2. Weather Conditions

Typical weather is tropical, with high temperatures and humidity, especially from March to June. Monsoon season (July to September) can lead to heavy rainfall, potentially causing slick roads and reduced visibility. Windy conditions during monsoon seasons may also impact vehicle stability.

3. Traffic Patterns

- **Peak hours:** Morning (8:00 AM - 10:00 AM) and evening (5:00 PM - 8:00 PM).
- **Congestion-prone areas:** Town centers like Perundurai and stretches near Erode can have traffic jams during peak hours.

4. Road Quality and Infrastructure

The roads are generally paved but may have uneven surfaces and potholes, especially after monsoons. Infrastructure is sufficient for trucks, but bypasses tend to have higher quality roads than town centers.

5. Alternative Routes

- In case of emergencies, detours via Salem or traveling through less populated areas can be options to avoid congested areas.

6. Local Regulations on Hazardous Materials

Tamil Nadu follows stringent regulations on hazardous material transport, requiring permits and adherence to designated routes for hazardous cargo.

7. Historical Incidents

There have been occasional accidents involving heavy vehicles along this route, mainly due to over-speeding and cargo shifts during hilly or sharp turns.

8. Environmental Considerations

Sensitive areas include agricultural lands near Erode and water bodies susceptible to contamination from hazardous materials. Proper containment measures and transit routes are defined by local norms to minimize environmental impact.

9. Communication Coverage

Most areas have reliable network coverage. However, rural stretches may experience brief communication dead zones. It's advisable to have backup communication means.

10. Emergency Response Times

- **Near towns (Sangagiri and Erode):** Response within 20-30 minutes due to proximity to emergency services.
- **Rural stretches:** May take 40-60 minutes for emergency services due to road conditions and distance.

11. Overall Risk Assessment

- **High Risk:** During monsoon, due to slippery roads and potential flooding.
- **Moderate Risk:** Peak traffic hours, potential for congestion-related issues.
- **Low Risk:** During off-peak hours with favorable weather conditions.

Summary

This route presents a mix of challenges, particularly from weather and traffic congestion during peak hours. Stringent adherence to local regulations and timely navigation choices are crucial for minimizing risks. Maintaining updated communication equipment and planning for alternate routes enhance safety in emergencies. Safety measures and awareness of environmental sensitivities must be rigorously followed to ensure minimal risk during transportation of hazardous materials.

Route Photos of Risky Spots



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 0.31 km

Coordinates: 11.44029, 77.87544



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 1.36 km

Coordinates: 11.44893, 77.87413



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 3.34 km

Coordinates: 11.45350, 77.85700



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 4.12 km
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Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 4.37 km
Coordinates: 11.46046, 77.85037



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 4.66 km
Coordinates: 11.46303, 77.84945



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 8.38 km

Coordinates: 11.45542, 77.81725



Risk Type: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 8.51 km

Coordinates: 11.45634, 77.81673



Risk Type: Blind Spot
Speed Limit: 10 KM/Hr
Distance from Start: 18.67 km
Coordinates: 11.44530, 77.72783



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 45.08 km
Coordinates: 11.29158, 77.58600



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 45.44 km
Coordinates: 11.29140, 77.58253



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 46.98 km

Coordinates: 11.29012, 77.56873



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 55.47 km

Coordinates: 11.24339, 77.51556



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 56.97 km
Coordinates: 11.24184, 77.50270

[Download Interactive Map](#)