JOURNEY RISK MANAGEMENT (JRM) STUDY

Salem Terminal TO SRI VISHNU OILS

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

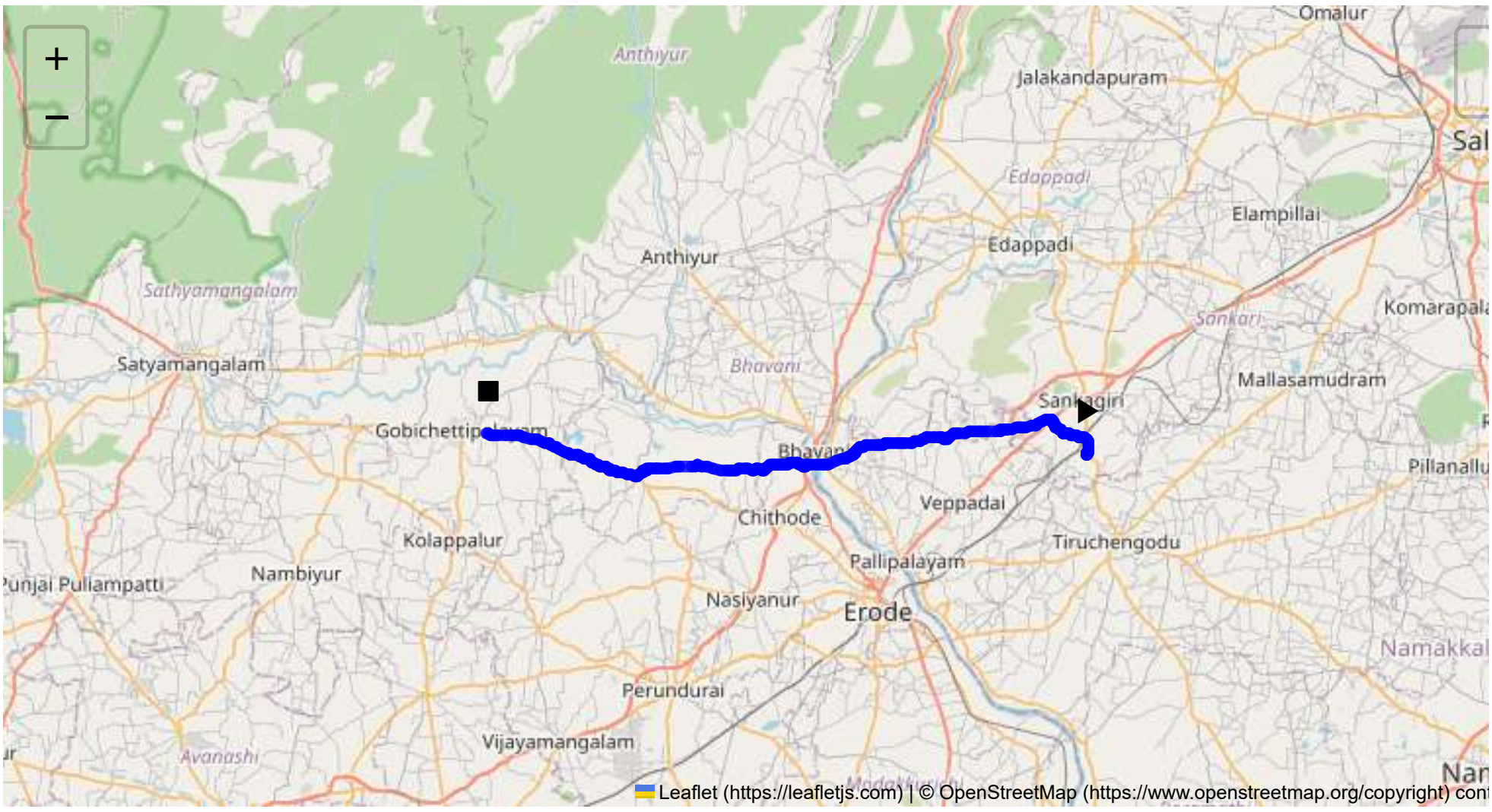
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 50.70 km
Estimated Duration: 1.1 hours
Adjusted Duration (Heavy Vehicle): 1.3 hours
Start: (11.4381, 77.8734)
End: (11.452404, 77.452479)



Risk Spots

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
0	Turn	11.43811, 77.87348	15 KM/Hr	0.00 km
1	Turn	11.43961, 77.87341	15 KM/Hr	0.14 km
2	Turn	11.44029, 77.87544	15 KM/Hr	0.32 km

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
3	Turn	11.44893, 77.87413	15 KM/Hr	1.37 km
4	Turn	11.45350, 77.85700	15 KM/Hr	3.34 km
5	Turn	11.46046, 77.85037	15 KM/Hr	4.37 km
6	Turn	11.46303, 77.84945	15 KM/Hr	4.73 km
7	Turn	11.45542, 77.81725	15 KM/Hr	8.39 km
8	Blind Spot	11.45634, 77.81673	10 KM/Hr	8.52 km
9	Blind Spot	11.44530, 77.72783	10 KM/Hr	18.68 km
10	Turn	11.43001, 77.67575	15 KM/Hr	24.90 km
11	Turn	11.43278, 77.67024	15 KM/Hr	25.61 km
12	Turn	11.43346, 77.66700	15 KM/Hr	25.99 km
13	Turn	11.43225, 77.66561	15 KM/Hr	26.18 km
14	Turn	11.42837, 77.56935	15 KM/Hr	36.98 km
15	Turn	11.42707, 77.56407	15 KM/Hr	37.63 km
16	Turn	11.42329, 77.55798	15 KM/Hr	38.46 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	Driver's 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	Driver's Side
13	hospital	PST Mahaa Hospital	11.4312903, 77.6585751	Driver's Side
14	hospital	Dharun Hospital	11.4223638, 77.5597735	Driver's Side
15	hospital	Dr. Ramaswamy Hospital	11.4249065, 77.5535658	Opposite 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

Welcome to the Journey Risk Management Study

1. Overview of the Route Map: The route begins in Sangagiri, Tamil Nadu, and progresses through several key waypoints: Puthur, Padaiveedu, Sevagoundanur, and Kavindapadi, finally reaching Gobichettipalayam. This journey covers approximately 50.70 kilometers, traversing through both rural and semi-urban landscapes, predominantly along state highways and main roads connecting the smaller towns and villages.

2. Typical Weather Conditions and Potential Weather-Related Hazards: Tamil Nadu experiences a tropical climate with hot summers, moderate rainfall during the monsoon (June to September), and relatively mild winters. Monsoon seasons can cause heavy rains leading to localized flooding, especially in low-lying areas, which may affect the route by causing waterlogging or road washouts. Summers could also pose a hazard through extreme heat causing road surface deterioration and affecting vehicle performance.

3. Analysis of Traffic Patterns: Traffic tends to be moderate with periodic congestion, especially near market areas within towns like Sangagiri, Puthur, and Gobichettipalayam. Peak traffic hours typically occur in the morning (7-9 AM) and evening (5-8 PM), corresponding with work and school commutes. The segment from Sangagiri to Puthur is known for denser traffic, particularly near market zones.

4. Assessment of Road Quality and Infrastructure: Overall, the main connecting roads are tarred but may have uneven patchwork and occasional potholes that could pose risks, particularly to heavy vehicles. Infrastructure varies, with some narrow bridges or roads necessitating caution. Road signage and lighting are generally adequate in urban areas but can become sparse in rural segments.

5. Suggestions for Alternative Routes for Emergencies: In case of emergencies such as roadblocks or closures, consider using routes through nearby major townships like Erode or Bhavani, though they may increase travel time. Coordination with local authorities for current road conditions is advisable before undertaking alternative paths.

6. Summary of Local Regulations Affecting Hazardous Material Transport: Transporting hazardous materials is regulated under Indian Motor Vehicles Act provisions, requiring specific permits. Adherence to guidelines concerning vehicle placards, driver certification, and load restrictions is mandatory, with heightened checks common near Erode district borders.

7. Overview of Historical Incidents: While the region does not have a significant history of major hazardous material incidents, there have been occasional reports of road accidents involving trucks due to weather conditions or human error. Awareness of these risks and preparedness for emergency response is critical.

8. Environmental Considerations and Sensitive Areas: The route passes through agricultural zones and near water bodies, necessitating strict adherence to spill prevention and containment protocols to avoid environmental damage. Consideration for local flora and fauna, especially in more rural segments, is important.

9. Analysis of Communication Coverage: Communication coverage is robust in urban and semi-urban areas but can be inconsistent in rural sections, particularly between Puthur and Sevagoundanur. It is advisable to have backup communication devices.

10. Estimated Emergency Response Times: Emergency response times can vary significantly. Urban areas like Sangagiri or Gobichettipalayam could see response times as short as 20-30 minutes, while rural segments might experience longer delays of up to 60 minutes due to distance from major hospitals and emergency services.

11. Overall Summary of Risk Assessment: The route presents a moderate level of risk, primarily due to weather impacts and rural infrastructure limitations. Preparedness for adverse weather, adherence to transport regulations, and emergency planning are essential. Coordination with local authorities and utilization of technology for monitoring and communication can mitigate many risks. Maintaining a cautious driving approach, especially during peak hours and in inclement weather, will further enhance safety for transport along this route.

Route Photos of Risky Spots

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 0.32 km

Coordinates: 11.44029, 77.87544

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 1.37 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: 4.37 km

Coordinates: 11.46046, 77.85037

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 4.73 km

Coordinates: 11.46303, 77.84945

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 8.39 km

Coordinates: 11.45542, 77.81725

Risk Type: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 8.52 km

Coordinates: 11.45634, 77.81673

Risk Type: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 18.68 km

Coordinates: 11.44530, 77.72783

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 24.90 km

Coordinates: 11.43001, 77.67575

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 25.61 km

Coordinates: 11.43278, 77.67024

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 25.99 km

Coordinates: 11.43346, 77.66700

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 26.18 km

Coordinates: 11.43225, 77.66561

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 36.98 km

Coordinates: 11.42837, 77.56935

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 37.63 km

Coordinates: 11.42707, 77.56407

Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 38.46 km

Coordinates: 11.42329, 77.55798

Download Interactive Map