

Analyzing hazardous material transportation incidents and the attributing factors...

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Hazardous Material Transportation Incidents: HAZMAT Transportation The Hazardous Materials Regulations (HMR) as enforced by the US Department of Transport gives guidelines and specifies standards which ensure that the transportation of hazardous materials through motor vehicle, vessel, aircraft and car is safe (Bonvicini and Gigliola 345). The regulations for the transportation of hazardous materials are very comprehensive and are designed to govern all transportation activities which involve hazardous materials. The transport activities such as packaging, shipping, inspection, testing, forwarding and brokerage of hazardous materials are regulated by the provisions within the Hazardous Materials Regulations. HAZMAT transportation has been reported to have been involved in more than 10000 incidents within the transportation of hazardous material in the last decade (Gallagher 9). These incidents are associated with the transportation risks which are associated with filling of packages, labeling, handling, cargo hold, loading and freight of hazardous materials (Kube 14). For the sake of safety in the HAZMAT transportation processes, safety measures which adhere to the Hazardous Materials Regulations must be implemented. Incident reporting in the transportation of hazardous materials is described as a very important consideration for all transport companies because it helps early detection and management of such incidences (Bierlein 10). The US Department of Transport requires all transport companies to adhere to the provisions of the Hazardous Materials Regulations so that incidents are reported and kept within the Hazardous Materials Information System (HMIS) databases. The reporting of HAZMAT transportation incidences will help the identification of problems within the transportation system. Problems such as

lack of training and the consequential safety risks in packaging, transport and general management of hazardous materials can be identified through proper incident reporting (Murray 1). The operational problems which occur during the loading of hazardous materials within HAZMAT transportation have been attributed to the increasing incidences reported within the transportation system. Additionally, poor risk management approaches in the securing packages and enforcement of rules have been described as the core causes of the increased incidences reported within HAZMAT transportation (Bonvicini and Gigliola 349). The Risk Management Framework within HAZMAT transportation includes training of its staff on safety of all its transportation processes (Chakrabarti and Jigisha 758). The employees of HAZMAT transportation directly affect or influence the transportation of hazardous material. This is through employee involvement in commerce, packaging and transport of hazardous material. The various functions of hazardous material transportation within HAZMAT are preceded with training of the employees concerned. The training of the employees also includes instruction on the regulations and standards of the Hazardous Materials Regulations including any changes which may be inculcated in the regulations. This training is a measure of risk management which ensures that the employees are conversant with the safety standards in the transportation of hazardous materials. Despite the training of employees and the implementation of a legal framework and transport rules, safety incidents continue to be reported within HAZMAT transportation. These incidents have been attributed to the disregard of safety rules by the employees for example truck drivers who drive under the influence of alcohol

(Murray 1). Therefore it is recommended that within the Risk Management Program of HAZMAT transportation, employee training must be incorporated with testing and certification so that future incidences are avoided. The application of risk management framework within the HAZMAT transportation is aimed at reducing the reported incidents. In addition to risk minimizing checking and balances, hazard communication within HAZMAT transportation is one of the most effective measures of minimizing incidences of unsafe hazardous material transport (Gallagher 11). The regulations within HAZMAT transportation are guided by the provisions of the Hazardous Materials Regulations. Hazard communication is thus enabled through provision of guidelines for hazard warning, labeling, emergence response information, telephone numbers and placards on the transport vehicles for hazardous material transportation (Kube 15). Shipping and aircraft cargo should also be labeled properly so that safety measures and warning for hazardous materials is made possible through an effective hazard communication. In view of the provisions of the Hazardous Materials Regulations, HAZMAT transportation endeavors to provide the required classification of hazardous material so that their identification within its diverse forms of transport is made possible (Chakrabarti and Jigisha 765). However the adherence of the packaging regulation through protective packaging is described as the first and vital step in ensuring that there is no release of hazardous material during transportation. The adherence to the Hazardous Materials Regulations and the enforcement of the US Department of Transport by the HAZMAT transportation will enable proper conditions for the transport of hazardous material. As a result, incidences of poor safety for

hazardous materials during transport will be reduced. The implementation of legal and ethical frameworks is recommended within all operations of HAZMAT transport so that the packaging, loading, handling, shipping, freight and cargo holding processes are safe from public exposure to hazardous material and the consequential implications. Works Cited Bierlein, Lawrence. " National Hazmat Transportation Law Trumps Local Restrictions." Logistics Today 2006: 10 Bonvicini, Sarah., and Gigliola, Spadoni. " A Hazmat Multi-Commodity Routing Model Satisfying Risk Criteria: A Case Study." Journal of Loss Prevention In The Process Industries, 2008, 21. 4: 345-358 Chakrabarti, Uday., and Jigisha, Parikh. " Class-2 Hazmat Transportation Consequence Assessment On Surrounding Population." Journal Of Loss Prevention In The Process Industries, 2011, 24. 6: 758-766 Gallagher, John. " Hazmat's Oncoming Hazards: Cover Story." Traffic World, 2005, 269. 18: 9-12 Kube, Kathi. " Improving Hazmat Transportation." Trains, 2010: 14-15. Murray, Martin. " Federal Hazardous Materials Transportation Regulations". Logistics Supply Chain. 2012. Web. 28 February 2012.