

Tank Check 2002



June 4 - 6, 2002

Table of Contents

Tank Check 2002 Report

OVERVIEW	3
INVESTIGATIVE SUMMARY	4
INSPECTION RESULTS	6
CONCLUSION	13

TANK CHECK 2002

OVERVIEW

During the week of June 3, 2002 the Federal Motor Carriers Safety Administration (FMCSA), in conjunction with the Commercial Vehicle Safety Alliance's national Road Check, placed additional emphasis on the safety of hazardous materials being transported in cargo tanks. This special emphasis project was designated "TANK CHECK 2002." Joseph M. Clapp, FMCSA Administrator, was the keynote speaker at the kickoff event for Road Check that was held at the Carson, VA. inspection facility. The goal of this project is to improve safety by reducing the risk of HM (Hazardous Materials) incidents (spills) by targeting HM Carriers that transport HM in cargo tanks (CT). A secondary goal of the project focused on educating the motor carriers, the shippers and the enforcement community regarding the safety concerns associated with the transportation of high hazard materials.

Studies have demonstrated that class 3, flammable and combustible liquids accidents and incidents account for about 56 percent of all of the events in a given year. Studies have also shown that class 3 materials are transported predominantly in cargo tanks. Additionally, studies have also demonstrated that class 3 and class 8 materials make up approximately 77 percent of all enroute HM Incidents for a given year with a large majority of these shipments moving in cargo tanks and other bulk packages. Inspection results from this years event discovered that of the 604 HM violations discovered, 256 of these violations were discovered on cargo tanks that primarily transport class 3 materials (MC 306 and DOT 406 cargo tanks). Further, there are twice as many MC 306 cargo tank as there are DOT 406 tanks but MC 306 cargo tanks account for 38 times as many violations as DOT 406 tanks. This supports what we already know that older tanks require increased maintenance.

The data collected from this project assists FMCSA in its efforts to measure the level of compliance of motor carriers transporting hazardous materials in cargo tanks and other bulk packages and identifies opportunities to develop training material for the industry and the enforcement community targeting specific areas where improvement is needed.

Tank Check 2002 involved performing primarily Level I¹ and Level II² vehicle inspections of cargo tanks at fixed roadside inspection facilities, mobile inspection facilities and inter-modal facilities. The data for this project was obtained using the ASPEN inspection software and uploading this data to MCMIS for analysis. Tank Check 2002 also provided FMCSA a great opportunity to be more visible to the general public and have a positive impact on people affected by the safety and security of the transportation system, which is so vital to our economy and our country.

¹ North American Standard Level I Inspection - The most thorough driver/vehicle roadside inspection – a 37 step procedure that includes an examination of both the driver and vehicle. The driver inspection includes items such as the license and endorsements, hours of service, possible use of alcohol and drugs, and seat belts. The vehicle inspection includes items such as the brake system, coupling devices, exhaust system, frame, fuel system, lights, safe loading, steering mechanism, suspension, tires, van and open-top trailer bodies, wheels and rims, windshield wipers, and emergency exits on buses.

² North American Standard Level II Inspection - An examination that includes each item specified under the North American Standard Inspection that can be inspected without physically getting under the vehicle.

Tank Check 2002 relied on the inspection data uploaded in MCMIS to generate the tank inspection results. Utilizing this procedure reduces the reporting activities for the Division Offices and reduces the need for Division Office/Service Center coordination. The reports generated from this data are contained under the heading Inspection Results. A total of 35 Division Offices and 46 State inspection agencies fully participated³ in this activity.

The Federal and State participants made Tank Check 2002 a very successful operation resulting in 3,399-cargo tank inspections with 2,226 violations discovered resulting in 682 Cargo Tank Motor Vehicles (CTMV's) being placed out of service (OOS). Although better than the national average for all commercial motor vehicles (CMV), a 20 percent OOS rate indicates there is an opportunity for improvement on the part of HM Carriers operating cargo tanks.

INVESTIGATIVE SUMMARY:

The following is a brief summary of Tank Check 2002 results. Additional information is contained in the Inspection Results.

- 3,399 cargo tank inspections were performed vs. 1,479 in 2001, an increase of 130 percent
- Of the 3,399 cargo tank inspections conducted, 85 percent (2,902) were conducted by State entities, while the remaining 14 percent (497) were conducted by Federal officials, this represents a 111 percent increase for State and 373 percent increase for Federal Inspections over 2001 levels
- Of the 3,399 cargo tank inspections conducted, 66 percent (2,251) were level one inspections, 30 percent (1,036) were level two inspections, 2 percent (74) were level three, 0.6 percent (22) were level four inspections and 0.4 percent (16) were level five inspections
- Of the 3,399-cargo tank inspections conducted, 14 Percent (476) had one OOS violation, 4 percent (127) had two OOS violations, 1.6 percent (56) had three OOS violations, and 0.6 percent (23) had four or more OOS violations
- Of the 3,399 cargo tanks inspected:
 - 34 percent (1,173) had no violations; this is an improvement over last year's number of 30 percent
 - 25 percent (862) had one violation; this is an increase over last year's number of 22 percent
- Of the 3,399 cargo tanks inspected:
 - 45 percent (1,520) were MC 306, MC 307 or MC 312 and resulted in 89 percent (284) of the HM violations discovered

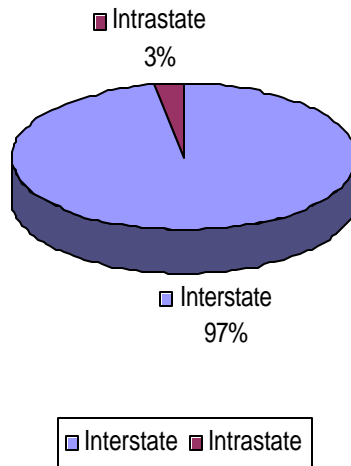
³ Determination of participation for Divisions and State agencies is based on the upload of the vehicle inspection data to MCMIS.

- 25 percent (882) were DOT 406, DOT 407 or DOT 412 and resulted in 11 percent (34) of the violations discovered
 - MC 306, MC 307 or MC 312 comprised 45 percent of the tanks inspected and resulted in 64.7 percent (11) of the leaking tanks
 - DOT 406, DOT 407 and DOT 412 comprised 26 percent of the tanks inspected and resulted in 18 percent (3) of the leaking tanks
- Of the 3,399 cargo tanks inspected there were 604 HM violations discovered and 256 of these HM violations were discovered on cargo tanks that primarily transport Class 3 materials. Of these violations:
- 23 percent (768) of the total tanks inspected were MC 306 resulting in 38 percent (228) of the total HM violations discovered
 - 12 percent (418) of the total tanks inspected were DOT 406 resulting in less than 1 percent (28) of the total HM violations discovered
- Of the 3,399 cargo tanks inspected there were 604 violations of the Hazardous Materials Regulations and 105 vehicles were placed out of service. Those violations include:
- 24 percent (150) were for marking/placarding, an improvement over last year's number of 36 percent
 - 10 percent (63) were for Part 180 violations; this is consistent with last year's number of 8 percent
 - 3 percent (17) were for leaking cargo tanks; this is consistent with last year's number of 3 percent

INSPECTION RESULTS

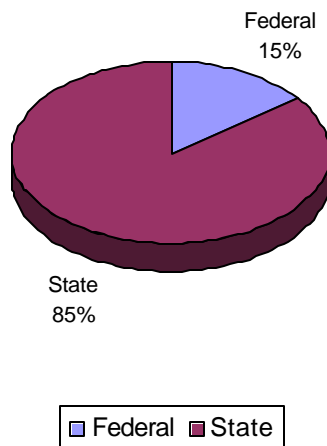
Of the 3,399 cargo tank inspections conducted, 97 percent (3,301) were of vehicles of interstate motor carriers while 3 percent (98) was of intrastate motor carriers.

Interstate vs. Intrastate Inspections



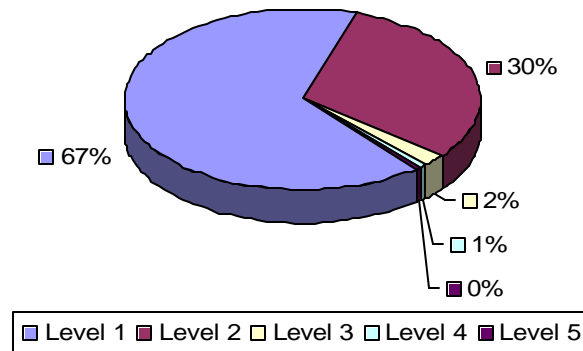
Of the 3,399 cargo tank inspections conducted, 85 percent (2,902) were conducted by State entities, while the remaining 15 percent (497) were conducted by Federal officials.

Federal Versus State Inspections



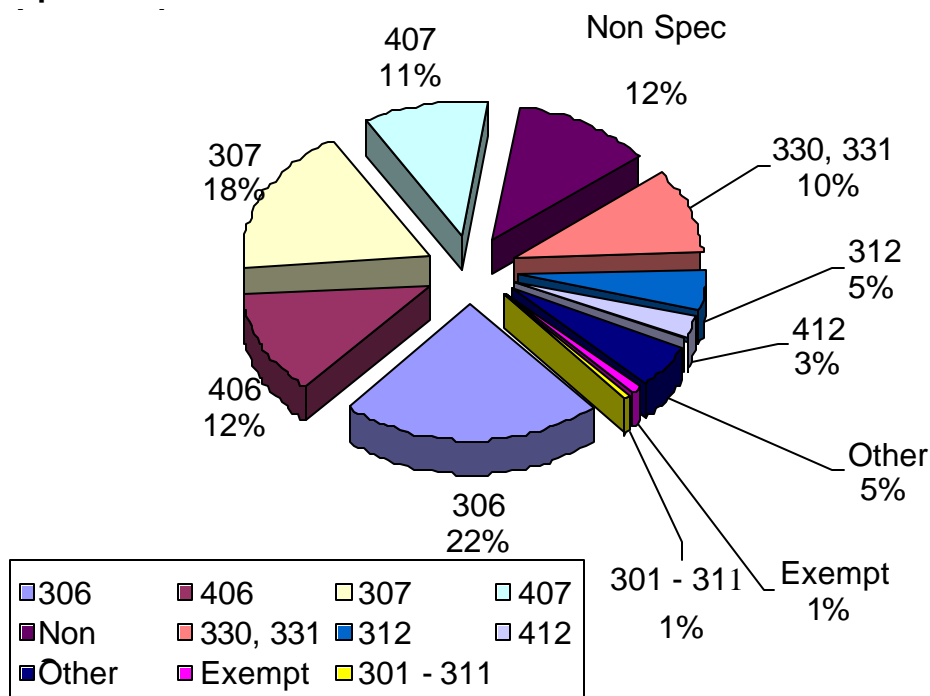
Of the 3,399 inspections 67 percent (2,251) were level one inspections, 30 percent (1,036) were level two inspections, 2 percent (74) were level three, 1 percent (22) were level four inspections and 0.47 percent (16) were level five inspections.

Inspection Levels



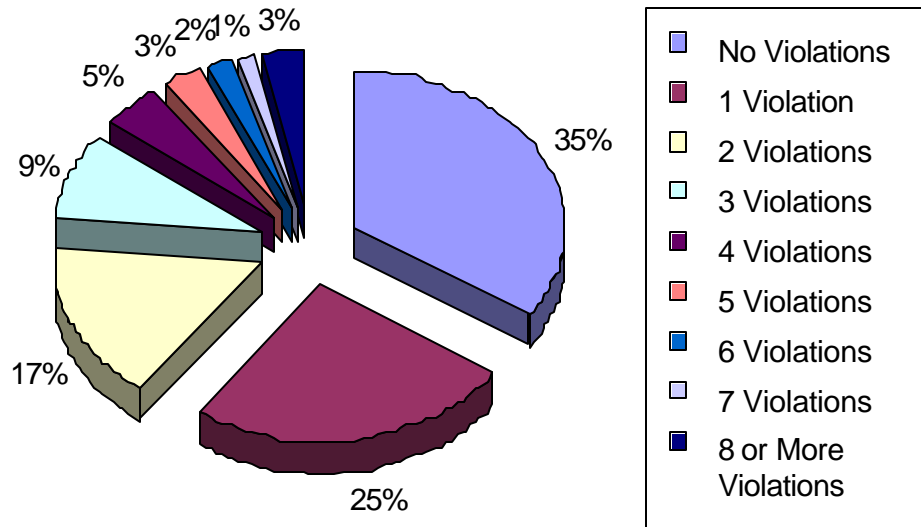
Of the 3,399 cargo tank inspections 22 percent (768) were MC-306's, 12 percent (410) were non DOT specification, 18 percent (599) were MC-307's, 10 percent (353) were MC-330/331's, 12 percent (418) were DOT 406's, 11 percent (364) were DOT-407's, 5 percent (153) were MC 312's, 3 percent (100) were DOT 412's, there were 1 percent (24) MC-301/303/304/305/311's inspected, 6 percent (210) were exempt or unknown specification tanks and there were no DOT 338 cargo tank motor vehicles inspected.

Specification of Tanks



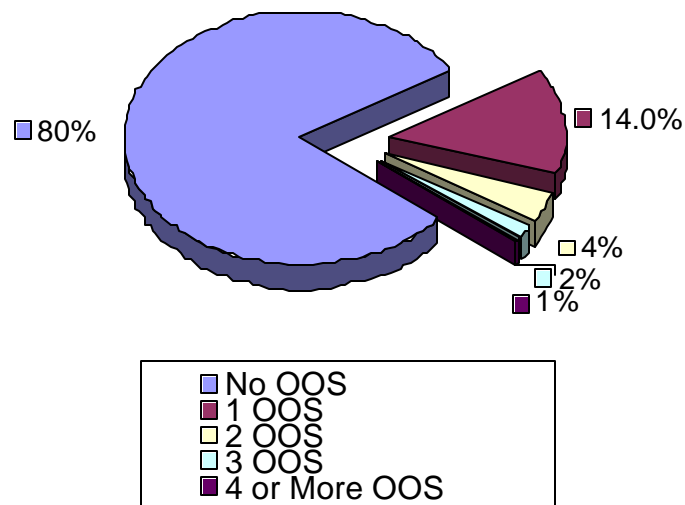
Of the 3,399 cargo tank motor vehicle inspections conducted, 35 percent (1,173) had no violations, 25 percent (862) had one violation, 17 percent (565) had two violations, 9 percent (304) had three violations, 5 percent (167) had four violations, 3 percent (103) had five violations, 2 percent (67) had six violations, 1 percent (49) had seven violations, and 3 percent (109) had eight or more violations per inspection.

of Violations Cited per Cargo Tank Inspection



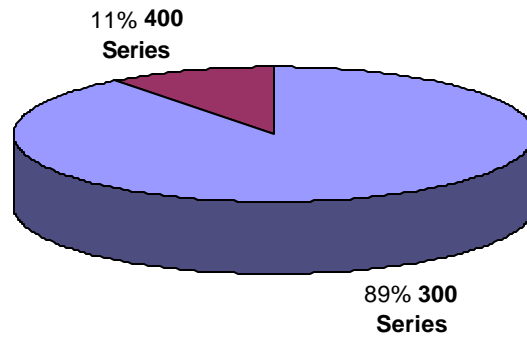
Of the 3,399 vehicle inspections 80 percent (2,717) had no out of service (OOS) violations, 14.00 percent (476) had one OOS violation, 4 percent (127) had two OOS violations, 2 percent (56) had three OOS violations, and 1 percent (23) had four or more OOS violations.

Total OOS Violations



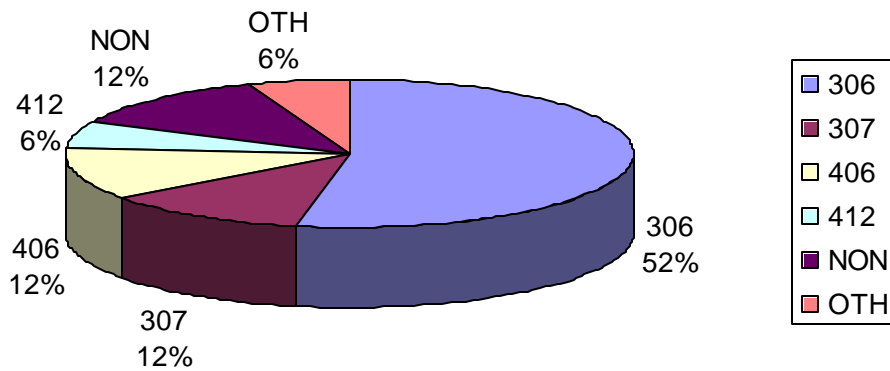
89% (284) of the HM violations discovered were in 300 series cargo tanks while 11% (34) of the HM violations discovered were in 400 series cargo tanks.

HM Violations by Specifications (300 & 400 Series)



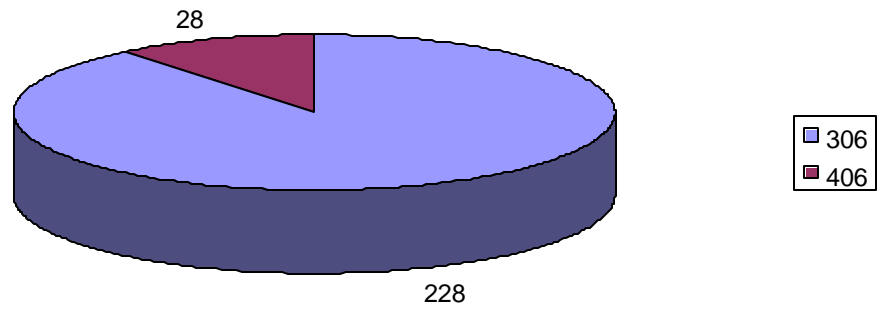
Of the 17 leaking cargo tanks, 52% (9) were MC 306, 12% (2) were MC 307, 12% (2) were DOT 406, 6% (1) was DOT 412, 12% (2) were non-specification tanks, and 6% (1) was unidentified.

Leaking Cargo Tank Violations by Specification

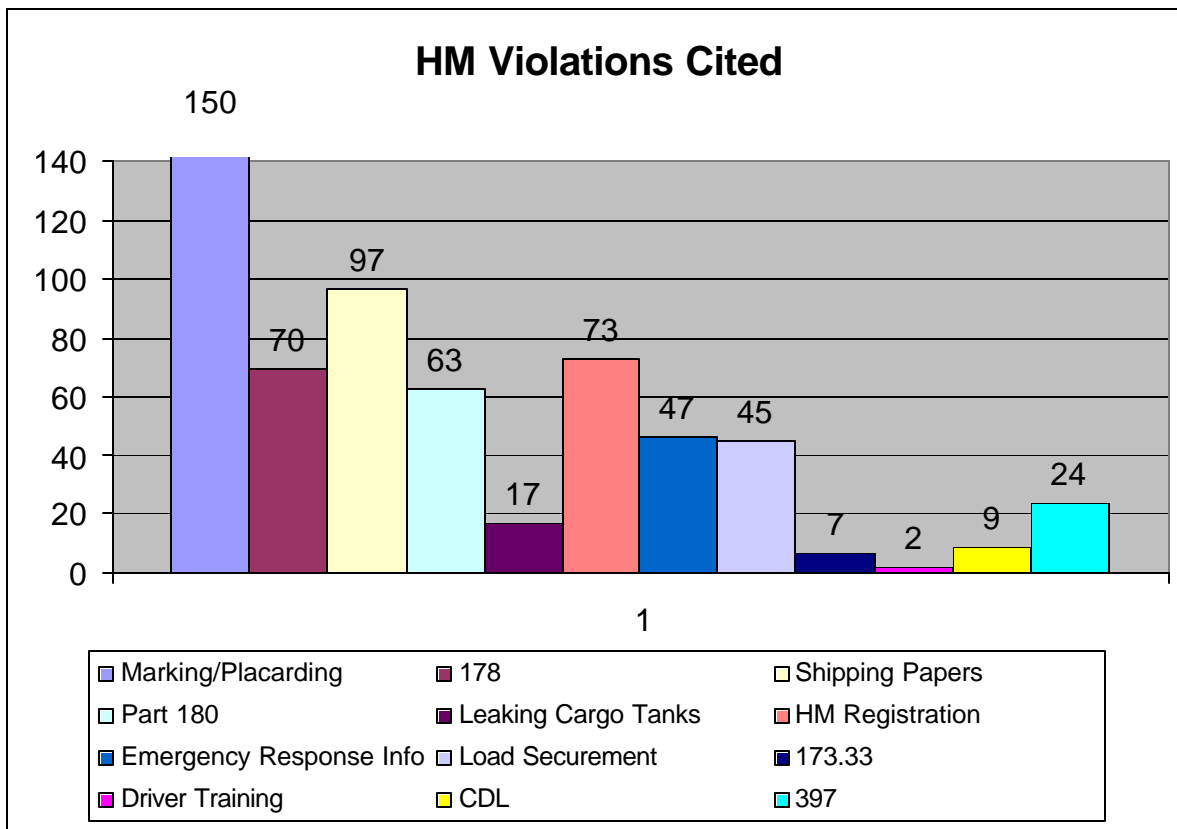


Of the 256 violations discovered on MC 306 and DOT 406 cargo tanks, 228 (89%) were 306 and 28 (11%) were 406.

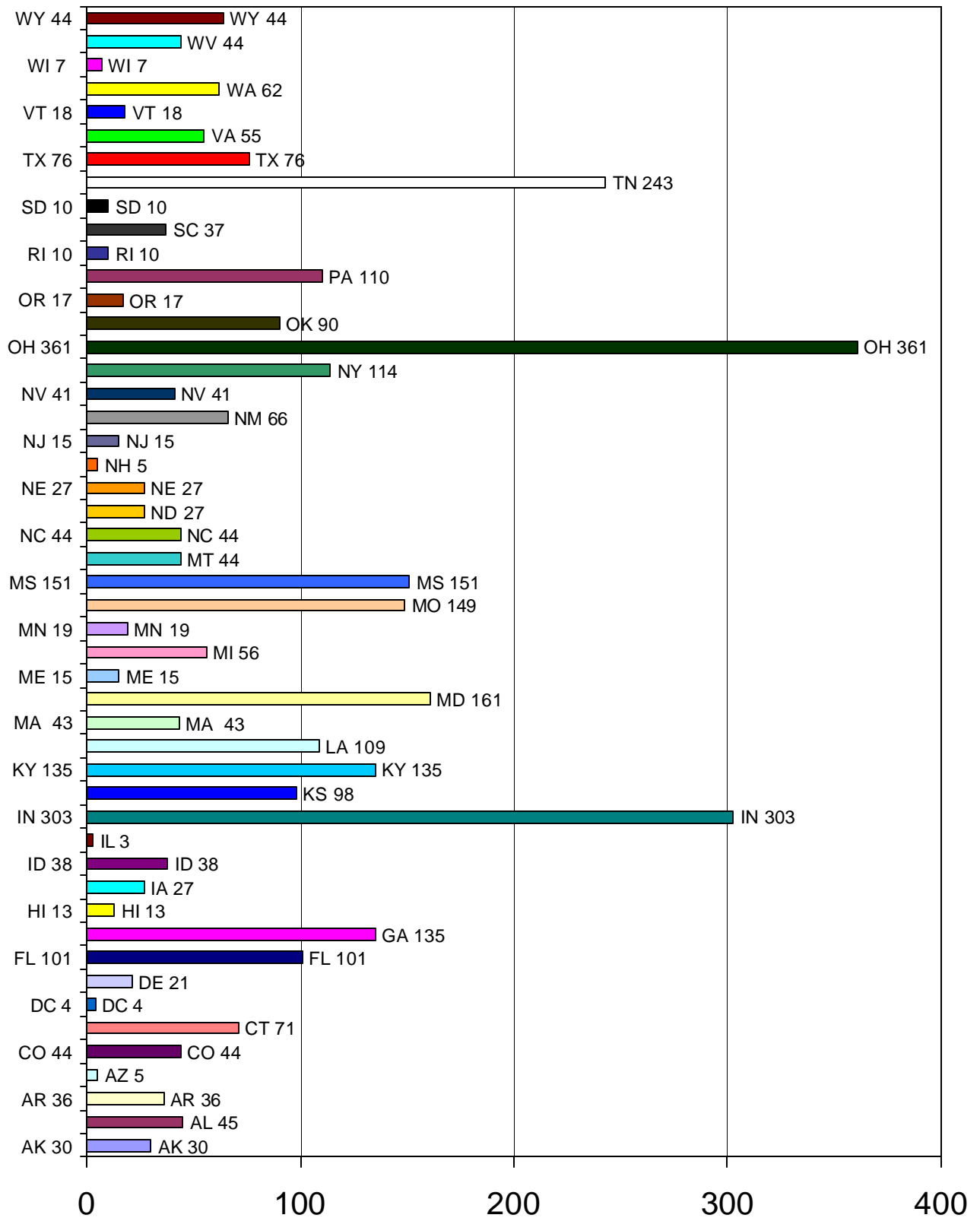
HM Violations by Specifications (306 vs 406)



Of the 3,399 vehicle inspections conducted, there were 3,165 related to bulk hazardous materials and 234 related to non-bulk hazardous materials. Of these inspections conducted, there were 604 violations cited directly related to hazardous materials. 105 of these resulted in an Out of Service (OOS) violation. Due to the numerous citation section numbers available to choose from, the violations were grouped into "like" violations. Of the violations cited, 24 percent (150) were for marking/placarding, 11 percent (70) were for violations of Part 178, 17 percent (97) were for shipping paper entries, 10 percent (63) were for Part 180 violations, 2 percent (17) were for leaking cargo tanks, 12 percent (73) were for HM registration violations, 8 percent (47) were for emergency response information, 7 percent (45) were for load securement, 1 percent (7) was for Part 173.33 violations, less than 1 percent (2) were for driver training violations, 2 percent (9) were for CDL violations, and 5 percent (24) were for violations of Part 397.



Inspections Conducted by State (Federal and State Combined)



CONCLUSION

Tank Check 2002 focused additional attention on HM carriers operating cargo tanks with the intention of reducing hazardous materials incidents. The results of the 2002 Tank Check provide information highlighting the safety and compliance of the cargo tank industry and the on road performance of motor carriers operating cargo tanks and cargo tank motor vehicles. The data can also be used to measure the effectiveness of various enforcement programs and identify areas where improvement is needed. The violations discovered from the Tank Check 2002 project are surprisingly consistent with the violations discovered data from previous tank checks with respect to the percentage of violations discovered.

Some of the conclusions that can be made from this activity are:

1. The out of service rate for cargo tanks for 2002 continues to improve from previous years and is consistently below the national average year to year. This would indicate that efforts to improve hazardous materials safety are having a positive impact.
2. There were 1,520 MC 306, MC 307 and MC 312 inspections making up 44.7 % of the all cargo tanks inspected vs 48 percent in 2001
3. The number of hazardous materials carriers failing to register or failing to maintain a copy of the registration on the vehicle was consistent with 2001.
4. CDL violations were consistent with 2001 numbers.
5. Ohio with 360 cargo tank inspections and Indiana with 267 cargo tank inspections were the top two States performing state inspections while Texas with 76 and Missouri with 37 were the top two States performing Federal Inspections.
6. Load securement violations decreased from 19 percent (92) in 2001 to 8 percent (45) in 2002. This is primarily attributable to hoses and other loading and unloading devices not being properly secured on the vehicle.
7. Cargo tanks transporting Class 3 materials make up the largest percentage of tanks inspected and violations discovered on MC 306 cargo tanks make up a disproportionately large percentage of the HM violations discovered.