

MICHIGAN DEPARTMENT OF TRANSPORTATION

OFFICE OF PASSENGER TRANSPORTATION

VEHICLE MAINTENANCE RECORDS REVIEW PREPARATION GUIDE

AGENCY:

REVIEW DATE:

INSTRUCTIONS

Transit agencies **MUST** review this guide prior to the onsite maintenance review to familiarize themselves with the topics to be addressed, the questions to be asked, and to ensure that copies of requested policies, certificates, forms, or other documents are accessible during the meeting. The maintenance summary forms will be completed during the review and returned to the agency with the comment letter for approval or to address deficiencies. All follow up documentation or corrective action must be submitted by the due date specified to avoid possible withholding of operations funds or suspension of current and/or future project authorizations.

If you have any questions or concerns about the vehicle maintenance records review process, please contact Kevin Wassom, MDOT OPT compliance analyst, at (517) 230-5949 or WassomK@michigan.gov, or your assigned OPT project manager.

Transit agencies (TA) are bound by Section 10 of the Michigan Department of Transportation Master Agreement for Public Transportation Projects to maintain vehicles throughout their useful life. Maintenance intervals must conform to at least the manufacturer's minimum recommended service levels for the make, model, and year of the vehicle.

TA are required to submit a written vehicle maintenance plan to the Michigan Department of Transportation (MDOT), Office of Passenger Transportation (OPT) for review and approval. Any subsequent additions or changes must also be approved before they become effective.

The OPT compliance analyst (CA) will conduct an onsite review of each TA vehicle maintenance program primarily on a triennial basis unless results indicate that more frequent reviews are necessary. The review consists of a random sampling (20 percent of the fleet or a maximum of 10 vehicles) of vehicle maintenance records for compliance with the approved vehicle maintenance plan. If any discrepancies are found, follow-up reviews will be conducted at least annually until the TA is brought back into compliance through a written and approved corrective action plan. The plan must be received within 45 days of the onsite review to avoid withholding of 25 percent of TA operating funds and/or execution or award of capital project authorizations. Three consecutive deficient reviews will result in sustained withholding of 25 percent of the TA operating funds and/or award of project authorizations and require a minimum of two unannounced maintenance records reviews before full funding is reinstated.

Areas to be reviewed include:

1. Does the agency have an updated and current written and approved vehicle maintenance plan for FTA and/or MDOT funded vehicles?
2. Is the TA following its program for preventive maintenance, unscheduled repairs, and mandatory six-month safety inspections?
3. Does the TA commit enough staff and resources to maintain FTA and/or MDOT funded vehicles during their useful life?
4. Does the TA have a system for tracking warranty issues, and do they actively pursue warranty claims?
5. Do TA that use third-party maintenance providers have an effective, documented mechanism for monitoring the outside maintenance activities?
6. Does the TA manager or director have an active role in reviewing and ensuring that all maintenance requirements and intervals are being met?

There are four primary sources of vehicle maintenance documentation that are examined during a review.

1. Daily driver pre-trip and post-trip vehicle inspection reports.
2. Mandatory vehicle safety inspections documented on the required MDOT form.

3. Routine service and maintenance summaries supported by work orders, invoices, or other documentation.
4. Recordkeeping procedures that are accurate and able to show vehicle inspections and routine maintenance were completed on time, and that unscheduled repairs that affected safe operation of a vehicle were completed before being placed back into service.

DAILY INSPECTIONS

Daily inspections performed by either the driver or the mechanic are a key element to the early detection and repair of potential failures. Spending a few minutes every day conducting pre-trip and post-trip inspections on each vehicle will help detect problems early, improve vehicle safety, and decrease vehicle repair costs. At a minimum, a vehicle pre-trip inspection report must be performed every time a vehicle is to be used.

Maintenance staff must review each pre-trip or post-trip inspection report for any defects that were detected and documented. Defects that do not affect the safe operation of the vehicle must be repaired or scheduled for repair and the vehicle can remain in service. The maintenance staff must note the inspection report to this effect. Defects that do affect the safe operation of the vehicle must be repaired and the inspection report signed off by the maintenance staff before the vehicle can be placed back into service.

The CA will review a random sampling of pre-trip or post-trip reports for each vehicle that has been selected for review for compliance with these requirements. Unscheduled maintenance and repairs generated by these reports must be included on MDOT Form 1476 (Vehicle Maintenance Audit Summary) in addition to all the required routine maintenance completed at the TA specified intervals. The CA will send you this form for each selected vehicle for completion **prior to the onsite visit**. All repairs, routine or unscheduled, must be documented on work orders, invoices, fleet management reports, etc. to be considered completed.

Emphasis will be placed on any lift or ramp defects identified on an inspection report to determine if repairs were completed within the time frame required by the Americans with Disabilities Act.

SAFETY INSPECTIONS

Safety inspections are required to be completed on every revenue vehicle a minimum of every six months. Be sure not to confuse that specific interval with other terminology such as "twice a year" or "semi-annual". Once a safety inspection is completed, the six-month clock starts again. For example, if a safety inspection is completed on June 1, the next inspection is due before December 1. Do not worry about calculating for months with 28, 29, 30, or 31 days or being within 183 days (365/2). Simply add 6 months to the date of a completed inspection. Many TA perform the safety inspection every time the vehicle is pulled from service for routine maintenance, which is an enhanced measure

of safety and reliability but can also be cost prohibitive, especially for TA that outsource their maintenance.

All safety inspections must be documented on MDOT OPT's required form. Do not use other forms such as a dealership's colorful "multi-point inspection" or a USDOT or FMCSA annual inspection or sticker. The MDOT form is specific to public transit vehicles and accounts for their unique components to be checked. For TA that outsource their maintenance, be sure to send the form to your service provider and require them to fill it out each time.

A common error found during reviews is not providing the inspector's mechanic license number in the box at the top of the form.

Any safety inspections that are not documented on the MDOT OPT form will be considered non-compliant. Contact the CA or your project manager to obtain this form if you are not currently using it.

ROUTINE SERVICE AND MAINTENANCE

Preventive maintenance is an essential element of every effective vehicle maintenance program. It helps to ensure maximum vehicle reliability, safety, and longevity to meet the ever-increasing useful life parameters. Preventive maintenance involves performing regularly scheduled maintenance services, adjustments, and inspections based on a predetermined interval of months, miles, or hours operated to minimize malfunctions. Maintenance intervals should never exceed those recommended by the manufacturer. It also involves performing necessary repairs promptly to prevent further damage and to ensure vehicle safety. Proactive vehicle maintenance versus reactive vehicle maintenance should be a goal of every successful vehicle maintenance program.

For a maintenance program to be most effective, it must be designed around each specific vehicle, fit the vehicle's operating conditions, and change when the vehicle or operating conditions change. TA should avoid implementing a "one size fits all" maintenance schedule for their entire fleet.

At a minimum, the TA must provide a basic maintenance schedule which conforms with the minimum manufacturer recommendations for the following categories:

- engine oil and filter
- chassis lubrication
- air filter
- fuel filter (if equipped)
- wheelchair lift and securement
- vehicle cleaning
- disc and drum brakes
- transmission
- drive axle
- engine cooling system
- air conditioning
- safety inspections (minimum every 6 months)

The maintenance plan must include the methodology and the process your agency uses to determine when to schedule a vehicle for routine services so that pre-established intervals are not exceeded. This methodology should include the staff positions that will be involved and the data/documents that will be used. The plan should also include the process your agency uses to verify that all vehicles have been serviced prior to exceeding the intervals. This verification process should also include the staff positions that will be involved, and the data/documents that will be used.

The previous paragraph cannot be emphasized enough. To complete a successful compliance review, the TA director or manager must be involved in the tracking and scheduling of required services. Engaged management can help identify faults in the process that may be causing late or altogether missed services and correct the problem before it becomes systemic. The TA must be aware of any deficiencies in their program before they are discovered by the CA during the review.

RECORDKEEPING

All vehicle maintenance should be documented in the vehicle's historical record. This information can be analyzed to identify trends and diagnose equipment repairs. The recommended way to maintain vehicle histories is to place important forms (inspections, receipts, work orders, etc.) in separate folders for each vehicle, sorted by form type in chronological order. Using accurate and timely information, the maintenance manager can make changes to improve performance.

At a minimum, the TA must maintain adequate vehicle maintenance historical records to substantiate that maintenance is being performed to manufacturer recommendations for the required categories. The transit manager needs to assure that the work is being performed at the correct service intervals. In addition, the TA vehicle records must substantiate that both daily inspections and safety inspections are being performed.