

**Pennsylvania Department of Transportation**

# **Equipment Maintenance and Management Policies Manual**

**Prepared and Distributed by:**

**Fleet Management Division  
17th Street & Arsenal Boulevard  
Harrisburg PA 17120**



**pennsylvania**

DEPARTMENT OF TRANSPORTATION

[www.penndot.gov](http://www.penndot.gov)

PUB 177 (6-21)



## Table of Contents

<b>TABLE OF CONTENTS</b>	<b>.....i</b>
<b>INTRODUCTION</b>	<b>.....Page 1</b>
Central Office - Bureau of Maintenance & Operations - Fleet Management Division	...Page 1
District Responsibilities	.....Page 5
<b>CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT &amp; WARRANTY</b>	<b>....1-1</b>
1.1 Fleet and Component Standardization	.....1-1
1.2 Technical Specification Development & Process	.....1-2
1.3 Economic and Operating Consideration	.....1-2
1.4 Capital Equipment Budget	.....1-2
Purchase of Capital Equipment (FM processes purchase)	.....1-3
Purchase of Capital Equipment (Dist/Cty processes purchase)	.....1-5
Additional Purchases	.....1-7
Auction Proceeds	.....1-7
Heavy Equipment Auction Proceeds	.....1-7
Central Sales Auction Proceeds (Keystone)	.....1-7
1.5 Experimental Projects	.....1-8
1.6 Truck and Construction Equipment Warranty	.....1-9
General	.....1-9
Procedure for Implementing Repairs	.....1-9
Warning: To County and District Equipment Managers	.....1-10
Obtaining Service	.....1-10
Transportation	.....1-10
Monitoring Procedures	.....1-10
Arbitration Due to an Impasse	.....1-10
1.7 Defective Equipment Reporting System	.....1-10
1.8 Department Paint Policy	.....1-11
1.9 New "G" Piece Distribution	.....1-11
<b>CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS</b>	<b>.....2-1</b>
2.1 Equipment Management System	.....2-1
Equipment Classification	.....2-3
Equipment Inventory	.....2-5
2.2 Garage and Shop Tool Inventory System	.....2-7
Organization and Control	.....2-7
Purchasing of Shop Tools	.....2-12
Annual Inventory Tool Procedure	.....2-12
Repair Procedure for Shop Tools	.....2-14
2.3 Plant Maintenance Materials Subsystem	.....2-14
Procedure	.....2-14
Automated Ordering	.....2-15

**TABLE OF CONTENTS (Cont'd)**

2.4	Automated Fuel Control System (AFCS)	2-15
2.5	Engines	2-15
	Engines Requests	2-15
	Engines Returns	2-15
<b>CHAPTER 3:</b>	<b>Equipment Utilization</b>	<b>3-1</b>
3.1	Application for Change in Fleet Quota's	3-1
3.2	Equipment Fleet Model	3-1
3.3	Equipment Utilization Reporting Requirements	3-7
	M-805 Record of Operation	3-7
3.4	Development of Equipment Rental Rates	3-8
	Rental Rate Administrative Procedures	3-8
3.5	Transfer of Equipment (Loaning or Reassigned to another District/County)	3-9
	A. County to County, District to District and County to District	3-10
	B. Transfer of Equipment Between Fleet Management Division & Central Office	3-11
3.6	Safety	3-11
<b>CHAPTER 4:</b>	<b>PREVENTIVE MAINTENANCE PROGRAM</b>	<b>4-1</b>
4.1	PM Policy	4-1
	PM Responsibilities	4-1
	Preventive Maintenance Plan	4-5
	Plant Maintenance (PM Scheduler)	4-6
	Equipment Requiring PM Inspections	4-6
	PM Inspection Interval for All Dump Trucks	4-8
	PM Inspection Intervals for Equipment PM'd By Fuel Consumption	4-8
	PM Inspection for Equipment with A One (1) To Six (6) Month PM Interval	4-8
	PM Inspection Intervals for Personnel Vehicles 11,000 GVW or Less	4-8
	Next PM Due Windshield Sticker	4-9
	Fluid Change Intervals	4-9
4.2	Preventive Maintenance Inspection Procedures	4-9
4.3	New Equipment PM's	4-9
4.4	Seasonal Equipment Procedures (Winter or Summer)	4-10
4.5	Preventive Maintenance - Quality Assurance	4-10
4.6	Requirements	4-10
	PM File	4-10
4.7	Preventive Maintenance Forms	4-11
	Form M-614-Operator Daily Report for Mobile Equipment	4-11
	Form 12 & Go	4-11
	Form M-824 Equipment Preventive Maintenance Inspection Record	4-11
4.8	Contracted Preventive Maintenance	4-12

**TABLE OF CONTENTS (Cont'd)**

4.9	Oils and Lubricants Maintenance Policy . . . . .	4-12
	Oil Drains Policy . . . . .	4-12
	Equipment Fluid Changes . . . . .	4-12
	Fuel Consumption Standard . . . . .	4-13
	Oil Analysis Policy . . . . .	4-13
4.10	Winter Fuel Treatment and Testing . . . . .	4-14
4.11	Engine Coolant (Antifreeze) Maintenance Policy . . . . .	4-15
	Testing . . . . .	4-16
	New Equipment with Long Life Coolant (Diesel and Gasoline Engines) . . . . .	4-17
	Maintenance . . . . .	4-17
<b>CHAPTER 5:</b>	<b>ACCIDENTS . . . . .</b>	<b>5-1</b>
5.1	Accidents Overview-Involving Maintenance and Automotive Equipment . . . . .	5-1
5.2	Forms and Forms Completion . . . . .	5-6
<b>CHAPTER 6:</b>	<b>EQUIPMENT REPAIRS/MODIFICATIONS/REPLACEMENT/DISPOSAL . . . . .</b>	<b>6-1</b>
6.1	Equipment Repairs . . . . .	6-1
6.2	Purchasing for Repair of Vehicles and Related Equipment . . . . .	6-1
6.3	Equipment Work Orders . . . . .	6-3
6.4	Equipment Replacement and Disposal . . . . .	6-3
6.5	Disposal of Unserviceable Equipment . . . . .	6-4
6.6	Surplus of Unserviceable Equipment, Tools & Supplies . . . . .	6-5
	Surplus Procedures . . . . .	6-7
	Central Sale . . . . .	6-8
	Field Sale (SBP) . . . . .	6-9
	Auction (Tools, Parts, etc) . . . . .	6-11
	Auction (Heavy Equipment) . . . . .	6-13
6.7	Theft/Vandalism . . . . .	6-14
6.8	Equipment Modifications & Equipment Class Code Changes . . . . .	6-14
6.9	Vehicle Registrations . . . . .	6-15
<b>CHAPTER 7:</b>	<b>MISCELLANEOUS POLICIES . . . . .</b>	<b>7-1</b>
7.1	Dissemination of Technical- Information . . . . .	7-1
7.2	Hour Meters/Broken Speedometers . . . . .	7-2
7.3	Back-up Alarms . . . . .	7-2
7.4	Use of Unauthorized Equipment . . . . .	7-2
7.5	Tramming of Equipment . . . . .	7-2
7.6	Emergency Instructions - Department Automobiles . . . . .	7-3
	Accidents . . . . .	7-3
	Breakdowns . . . . .	7-3
	Out-of-Gas . . . . .	7-4
7.7	Re-Cap Tire Policy . . . . .	7-4

**TABLE OF CONTENTS (Cont'd)**

7.8	Catastrophic Truck Policy .....	7-5
7.9	Equipment Security Policy .....	7-6
7.10	Shadow Vehicle Safety Seat and Harness Minimum Requirements .....	7-7
7.11	Equipment Maintenance Calendar .....	7-7
7.12	Installation of Pre-Wet Tanks .....	7-18
7.13	Proper M-805 Reporting & Monthly Plant Maintenance Entry .....	7-19
7.14	Engine Idle Time Reduction - Mack and Navistar Dump Trucks .....	7-19
7.15	Fuel Conservation Policy .....	7-21
7.16	POV Mileage .....	7-22
7.17	Three Year Plan – Winter Carryover Trucks .....	7-23
7.18	Uniforms for Equipment Maintenance Staff - Service .....	7-24
7.19	Plow Repairs – Plow Blade Replacement Consistent Charging .....	7-25
7.20	Long Term Work Orders for Equipment Verification .....	7-25
7.21	New Assigned Vehicle “G” Identifier in Plant Maintenance .....	7-25
7.22	Hands-free Communication Device Use While Operating State Owned Vehicle .....	7-26
7.23	Equipment Fueling Policy .....	7-26
7.24	PennDOT Vehicle Assignment Policy .....	7-26
7.25	Specialized Equipment Policy .....	7-31
7.26	EZ Pass Procedures .....	7-32
7.27	Cone Placement Equipment Policy .....	7-34
7.28	Fleet Fuel Card Usage .....	7-35
7.29	Reassignment of Dump Trucks to New Knockout Holdover ECC .....	7-35
7.30	Downed Winter Equipment .....	7-36
7.31	Report Improper Use-Abuse of State Owned Equipment .....	7-36
7.32	New HIRE TEOA Certification .....	7-36
7.33	Revision of Form M-614 .....	7-37
7.34	Discretionary Spending for Equipment Related Issues .....	7-37
7.35	Spare Attenuators at the Fleet Management Division .....	7-37
7.36	Diesel Particulate Filter Cleaning Procedures .....	7-37
7.37	Automated Vehicle Location (AVL) Devices .....	7-39

**CHAPTER 8: TRAINING & CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS**

Assignment of Responsibilities .....	8-1
Operator Instructor (OI) .....	8-3
Operators .....	8-8
Mechanics .....	8-9
Classification & Certification .....	8-11
Department Certifier .....	8-23
Training Policy .....	8-24

**TABLE OF CONTENTS (Cont'd)**

**APPENDIX**      Assembly Descriptions

## **PUB 177 Changes**

(Revised 5/1/2021)

<b>Chapter / Section</b>	<b>Description of Change</b>
Page – 5	Under “Introduction/District Responsibilities/District Equipment Manager” added AVL updates
PAGE – 7	Under “Introduction/District Responsibilities/County Equipment Manager” added AVL updates
PAGE – 8	Under “Introduction/ Central Office - Bureau of Maintenance and Operations - Fleet Management Division” added Automated Vehicle Location (AVL) Administrator position description.
2.1	Under Tools Policy price changed to \$100
4.1	Added new updates under “PREVENTION MAINTAINANCE PLAN”
7.11	Under “EQUIPMENT MAINTENANCE CALENDAR” added AVL updates for DISTRICT EQUIPMENT MANAGER/ COUNTY EQUIPMENT MANAGER
7.37	A new sub section added under “Chapter 7: 7.37 AUTOMATED VEHICLE LOCATION (AVL) DEVICES”
CHAPTER 7	Grammar, edits & minor verbiage changes throughout the chapter.
CHAPTER 8	Grammar, edits & minor verbiage changes throughout the chapter.



## INTRODUCTION

This manual is a policy document for fleet maintenance and equipment management, which draws together Master Policies, Strike-off letters and Directives pertaining to the management of equipment and garages. The manual's purpose is to:

- Provide a reference for Equipment Managers and subordinates at all levels as an aid to understanding their responsibilities.
- Provide a reference for personnel responsible to train equipment managers.
- Provides clearly defined equipment policy and guidelines for any Department employee that has either direct or indirect custody of Department equipment.

Pub. 177 receives an annual update and revision with release to the field typically in the months of July through September. As previously titled Pub. 177 came to be interpreted as a resource and policy guide to be observed strictly by Department Employees within the Equipment maintenance and management community.

With the re-title from "Equipment Managers Manual" to the "Pennsylvania Department of Transportation Equipment Maintenance and Management Policies Manual" it will be expressly understood that all equipment maintenance and management policies contained within this Publication will be followed by any and all Department employee regardless of job title, position and or classification in the Department.

As one of the largest tangible assets maintained by the Department it is absolutely imperative that each and every Department employee who has either a direct or indirect role in the custody chain of Department equipment and/or has a supervisory or management role of an employee who has direct or indirect custody of Department equipment support, observe and enforce the equipment maintenance and management policies contained within Pub. 177.

The uniform and consistent application of these sound equipment maintenance and management strategies/policies detailed in Pub. 177 by all department employees will enable the Department to better maintain and manage these resources to their fullest potential moving forward.

Maintenance equipment, both Department-owned and rented, plays a key role in fulfillment of the Department's maintenance responsibilities. The effective and efficient discharge of the maintenance responsibility requires that Department equipment be utilized to the maximum extent possible. The judicious use of rented equipment will be necessary when Department equipment is not available to perform the work.

Equipment management involves personnel at all levels and the performance of the following functions:

- Determination of District and statewide equipment needs by type.
- Daily, weekly, monthly, and annual work scheduling to achieve maximum available equipment.
- Use of the most efficient piece of equipment available to perform the job.
- Transfer of equipment to improve equipment utilization.
- Development and use of comprehensive preventive maintenance and repair programs to avoid excessive downtime and costly repairs.
- Analysis of equipment needs prior to purchase of new equipment.
- Completion of necessary documentation required to meet approved policies and procedures.

The major emphasis of fleet maintenance is focused on the control of maintenance equipment which has been purchased against the capital budget. An effective Equipment Management Program will require that all associated personnel understand and fulfill the assigned responsibilities which are described in the following statements:

### **Central Office - Bureau of Maintenance and Operations - Fleet Management Division**

The Fleet Management Division consists of three sections. They are the Operator and Equipment Training Section, Specifications and Buying Section and the Fleet Advisors/Repairs/Rebuilds Section.

**Central Office - Bureau of Maintenance and Operations - Fleet Management Division (Cont'd)**

**Operator and Equipment Training Section**

Manages the following areas: Central warehouse for equipment components and maintenance hand tools; Management of the Automated Fuel Control System; Administrative responsibilities for all personnel functions; Management of the Department's use of the Commonwealth Fuel Credit Cards; and Mechanic and Operator Training Programs.

**Central Storeroom**

Procures in bulk quantities and supplies to PennDOT District and county organizations items such as selected equipment parts and accessories, equipment component assemblies, hand and forestry tools and safety equipment.

Pulls items such as those indicated above from stock based on computer generated field orders on a daily basis, and prepares them for District pony truck pick-up.

Reviews stocked item quantities to ensure adequate supplies, and reorders items as needed.

Provides annual listing and issues periodic updates to the field of stocked items available at the Fleet Management Division Storeroom.

**AFCS Unit**

Assists field organizations in Automated Fuel Control System (AFCS) hardware repair and maintenance.

Assists field organizations in the utilization of AFCS reports to monitor system effectiveness.

Coordinates and controls the distribution and activation of the Fuel fleet cards which are used to access fuel at all Department fuel facilities and retail facilities as well.

**Plant Maintenance Equipment Unit**

Assists field organizations with questions and problems regarding day to day Plant Maintenance Equipment operative procedures.

Coordinates requests for system enhancements and problem correction.

Updates the Equipment System on items such as new or changed Equipment Class Codes (ECC) and adding new equipment to Plant Maintenance.

Coordinates annual equipment physical inventory program.

Purchasing of new capital equipment

Input new equipment and removal of equipment

Heavy Equipment Auction and Light Duty Auction collection, removal of equipment, and auction proceed distribution.

Fixed Asset program

License Plate replacement and Registration Card replacement.

Preventative Maintenance Program Assignments

Various Plant Maintenance Equipment Reports

**Technical Support**

Acts as the Fleet Management Division's EDP Coordinator

**Mechanic and Operator Training**

Manages the Mechanic and Operator Training and Certification Programs. Provides advice and assistance to the Districts regarding Mechanic and Operator training and certification. Provides all lesson plans and updates for operator and mechanic training programs. Provides scheduling, notification and confirmation for all student nominations for the mechanic training program.

**Central Office - Bureau of Maintenance and Operations - Fleet Management Division (Cont'd)**

**Specifications and Buying Section**

Manages the development of specifications for all new equipment, statewide; Monitors the performance of new equipment through a deficiency reporting system. Provides technical support to the field through Information Bulletins, Technical Bulletins and Warranty Bulletins. Administers demonstration and experimental programs for new equipment, tools, and components; and Inspects/processes new equipment prior to delivery to the field.

**Technical Specification Development**

The Districts provide the Fleet Management Division with the specific types of equipment required for non-standardized Department equipment. Specification sheets and literature outlining the model desired and appropriate accessories as required, are usually forwarded as minimum acceptable performance. The Fleet Management Division then surveys the market place for similar products to insure competitive bidding among the manufacturers. Engineering drawings that give specific details to the prospective bidders are prepared and included in the specification. It is advisable that each specification is reviewed by the manufacturers' engineering staff prior to final development.

**Experimental Projects**

**Purchase:** To evaluate by obtaining "hands on" and "in house" experience with new types or updated revisions of equipment, attachments, and products. This procedure will provide an information base. The use of this information will enable more efficient management decisions for future purchases.

**New Equipment Inspection and Delivery**

This procedure details the responsibilities and actions required by the New Equipment Section when New Equipment is delivered to the Fleet Management Division until its initial transfer to different organizations in the field.

**Warranty Support**

1. Responsible for assisting the field in receiving warranty repairs and service on equipment.
2. Coordinates warranty work and helps resolve warranty disputes or problems.
3. Manages the Warranty Recovery program.
4. Submits warranty claims to vendors utilizing field generated A1 notifications.
5. Manages the "In-House" warranty program.
6. Manages Lube & Component Sheets.
7. Manages vendor websites for service/repair literature.

**Deficiency Reporting System**

**Purpose:** To use a quick method of funneling equipment status which will serve as a pulse or barometer for the entire fleet at the county level.

**Objective:** To identify and collect facts concerning the problems or failure of equipment, to determine the extent of the problem statewide; and to get suggestions for corrective action for the end user.

**Procedure:** To report deficient equipment, the A1 notification in the Plant Maintenance system must be properly filled out. It will be used by the Fleet Management Division to take affirmative action whether the equipment is under warranty or not. All questions may be answered by calling (717) 787-1567.

**Radio Section**

1. Manages and maintains maintenance contract for Two-way radios.
2. Responsible for resolving technical and functional communication problems in the field.
3. Develops and recommends new Two-way radio technical policies and procedures.

**Central Office - Bureau of Maintenance and Operations - Fleet Management Division (Cont'd)**

4. Assist and coordinate Two-way radio budget estimate, vendor invoicing, training and seminars.
5. Manages and maintains FCC licenses for the Department of Transportation.
6. Conducts Bi-Annual Statewide Radio Testing.
  - a. The Department of Transportation requires two statewide radio tests within each fiscal year. The statewide radio test ensures proper communication channels are functional in the event of an emergency.
7. Manages Annual Radio Inventory.
  - a. To coincide with the Equipment inventory, the radio section will send PM generated reports to each District asking them to validate the report. The Fleet Management Division will review the inventory performed by the field for accuracy, and make the necessary changes. The annual 800 MHz radio inventory is conducted to obtain accountability of PennDOT assets. The inventory also ensures each radio is properly assigned to a piece of equipment or respective Department employee.

**Fleet Advisors/Repairs/Rebuilds Section**

Manages the statewide equipment fleet in the following areas: Equipment policy, Preventive Maintenance Program; Refurbishing projects; Utilization; Field support; Warranty support; Repair and disposal; Equipment component remanufacturing; Data control for Plant Maintenance; and Maintenance of the Central Office equipment fleet.

**Equipment Policy**

Leads the development and review of policies and procedures for allocating, maintaining and repairing equipment.

Monitors compliance with established policy.

Leads in selecting equipment for refurbishing, developing specifications and overseeing completion of refurbishing projects.

**Preventive Maintenance**

Directs Department's Equipment Preventive Maintenance Program. Responsible for policy development, review and implementation. Oversees the PM Quality Assurance Program in each county and Central Office repair facility.

**Equipment Refurbishing**

Coordinates equipment delivery to and pickup from vendors.

Inspects refurbished equipment prior to acceptance.

**Equipment Utilization**

Reviews equipment utilization in comparison with Department policy.

Recommends transfer or disposal of equipment when warranted.

**Field Support**

Administers Statewide Catastrophic Truck Loss Program (Chapter 7.8. Page 7-5)

Assists the field with technical and administrative support for equipment-related problems.

Serves as liaison between field and vendor or manufacturer to resolve problems when necessary.

**Central Office - Bureau of Maintenance and Operations - Fleet Management Division (Cont'd)**

Researches equipment problems or deficiencies and reports remedies to field through Technical Bulletins.

Prepares and distributes Information and Technical Bulletins to alert field to new ideas or procedures that may be useful.

Assists with training on equipment policy.

**Equipment Repair and Disposal**

Coordinates surplus equipment auctions with Department of General Services.

Manages equipment auctions.

Assists field locations in ensuring timely sale and removal of field sale equipment.

**Component Remanufacturing**

Remanufactures diesel engines and selected hydraulic pumps to OEM specifications and supplies them to the field as needed.

Provides technical support for any remanufactured component problems.

Purchases new and vendor-remanufactured engines for issue to the field as needed.

**Fleet Management Division's Fleet Maintenance**

Maintains Pool Vehicle Fleet for use by Central Office. Maintains Executive Vehicles, Bridge and Roadway Inspection Vehicles. Maintains equipment and vehicles used for the two operator training sites. Maintains assigned vehicles for organizations 2000 through 8200.

Acts as the Fleet Management Divisions Safety, Right-to-Know and Haz Mat Coordinator.

**District Responsibilities**

**District Equipment Manager**

Schedules movement and use of highway equipment, from one county to another, within a District to provide necessary equipment for highway project.

Recommends to Assistant District Engineer/Administrator (Maintenance) acquisition of highway equipment to replace worn out equipment or to provide for an increasing work load.

Approves purchase of equipment repair up to a specified dollar amount to provide for District needs. Oversees the administration of paperwork processing necessary to make and control all equipment repair part purchases.

Participates in the management of the Automated Fuels System and oversees the use of appropriate oils and greases for highway equipment. Monitors the Automated Fuel System for accuracy and problems.

Conducts certification tests for equipment operators so that sufficient personnel are trained and certified on various pieces of equipment to support highway maintenance program needs.

Determines final District recommendation for the repair or disposal of highway equipment.

Investigates and reports causes of accidents involving state-owned equipment and develops a method to avoid similar accidents

Conducts formal inspections of equipment and sees that equipment is in safe operating condition.

Assists Counties in establishing preventive maintenance schedules to keep equipment in good condition and assists in the training of garage personnel.

**Central Office - Bureau of Maintenance and Operations - Fleet Management Division (Cont'd)**

Administers and supervises training for mechanics and operators.

Recommends purchase of garage equipment and shop tools to perform necessary repairs.

Determines that equipment is cleaned, properly serviced and mechanically sound, prior to transfer from one District to another.

Reviews computer reports showing equipment transfer transactions. With this review procedure, the District Equipment Manager is to ensure that all transfer transactions made have been approved.

Requests approval from the Fleet Management Division prior to making any modifications to a piece of equipment or changing the ECC code.

Reviews status of equipment to determine which equipment in their jurisdiction is down for repairs, why it is down and how long it is expected to be down. Takes appropriate action to avoid unreasonable repair delays.

Provides an updated list of all AVL-equipped vehicles to the AVL Administrator by May 1 and November 1 to confirm that all AVL devices are operating properly. If any are found to not be working properly, coordinate repairs with the AVL Administrator. Documents verification that all district and county AVL-equipped vehicles' devices have been checked and verified to be working properly at least two times annually.

**Transportation Automotive Equipment Specialist**

Schedules and monitors District pool car use and service.

Schedules and monitors the mechanic and operator training program for the District.

Assists with equipment operator certification when authorized by the District Equipment Manager.

Monitors District garages for needs, such as training, tools, safety, and productivity.

Conducts periodic quality assurance checks on preventive maintenance and repairs.

Assists County Equipment Manager as needed on repair programs and methods.

Inspects the shop repair facility and tools, making recommendations on purchasing and improvements.

Makes spot checks on equipment in the field operations.

Works closely with District Equipment Manager on all related duties.

**County Equipment Manager**

Is responsible for making effective use of all equipment assigned to their county.

Is responsible for the transfer and receiving of specialized equipment in accordance with schedules developed by the District Equipment Manager.

Is responsible to ensure that the Preventive Maintenance program, as described in this manual, is implemented and adhered to by all county personnel.

Monitors maintenance schedules and directs the development and use of a preventive maintenance program for self-propelled equipment, attachments and accessories in order to keep equipment in the best possible condition.

Manages mechanics, equipment operators, garage personnel and yard personnel to ensure equipment is properly repaired, maintained and utilized, and that the garage and yard area is properly maintained within policy.

Inspects assigned equipment to determine the need for replacement, repairs or maintenance.

Makes recommendations to County Maintenance Manager when condemnations are in order to keep equipment ready to meet needs.

Assigns individual operators to equipment in consultation with County Managers and union contract requirements, ensuring that each operator is qualified to operate that equipment. Sees that equipment is operated properly and in accordance with Department requirements and manufacturer's specifications so that equipment is not abused or misused.

Participates in and supervises the preparation of garage employee payrolls. Submits them to County Maintenance Manager for review and comment utilizing the Plant Maintenance System.



**Central Office - Bureau of Maintenance and Operations - Fleet Management Division (Cont'd)**

Participates in the investigation of county accident reports, involving equipment assigned to the garage, to determine cause of accident and steps to be taken to avoid future accidents.

Develops and implements a plan to make certain an adequate number of operators are available with necessary certifications to operate the vehicles assigned to the county.

Supervises the distribution of liquid fuels to Commonwealth vehicles.

Makes certain reports are accurate before official payroll data are received by clerical staff.

Recommends overtime or out-of-class assignments for subordinates in critical situations within fiscal restraints.

Approves emergency parts requisitions to repair equipment within financial limits.

Studies labor contract agreement to avoid labor disputes and to see that assignments and disciplinary actions are made in accordance with labor agreements.

Ensures equipment is being used effectively and resolves specialized problems, related to equipment breakdown, at the project site on highways in the county.

Supervises the maintenance of garage tool inventory to keep record of what is available for use and to guard against loss.

Performs annual physical tool inventory and submits to County Manager.

Requests approval of the District Equipment Manager for all transfers of equipment from their county to another county or District.

Informs County Terminal Operator of transfers into and out of their county on the day they occur.

Reviews computer reports showing equipment transfer to and from their county. This review will ensure that all transfers made have been properly recorded on the computer.

Efficiently uses District Scheduled Equipment for the period in which it is assigned to their county.

Requests approval of the District Equipment Manager prior to the modification of any equipment. Approval of the District Equipment Manager and Equipment Operations Section of the Fleet Management Division must be given prior to the modification of any equipment.

Requests approval of the District Equipment Manager prior to mounting or dismounting any permanently mounted equipment or accessories.

Documents Plant Maintenance System equipment inventory problems and submits them to the District Equipment Manager for resolution.

Verifies that all AVL-equipped vehicles' devices are working properly and delivers this information to the DEM at least two times annually (it is recommended to perform this concurrently with preventative maintenance checks). Periodically reviews AVL data to ensure all devices are reporting as intended (it is recommended to perform this at least once monthly during winter). If data is not reporting properly, coordinate repairs with the AVL Administrator.

**Mechanic Supervisor**

Supervises a staff of mechanics, tradesmen, and semi-skilled and unskilled laborers in the maintenance, repair, overhaul, and inspection of automotive, roadway and construction related equipment.

Instructs subordinate personnel in the assembly and adjustment of motorized equipment, the practices and procedures in auto trouble-shooting, and the rules and regulations governing equipment inspection and safety. Conducts spot checks on subordinate personnel is their performance of PM's to repairs.

Plans, lays out, and assigns work to automotive and diesel mechanics and other garage personnel. Inspects work during progress and upon completion to ensure repairs were completed. Makes road tests of equipment in diagnosing defects or in checking completed repairs.

Instructs mechanics and helpers in the repair and maintenance of automobiles, trucks, tractors, rollers, graders, compressors, and other construction and maintenance equipment.

Participates in the assembling and major overhaul of cars, trucks, and related construction and maintenance equipment.

Prepares progress and evaluation reports on subordinate personnel.

Performs related work as required.

**Central Office - Bureau of Maintenance and Operations - Fleet Management Division (Cont'd)**

**Equipment Operator**

Performs required "Before, During and After Operational Checks" on equipment prior to starting it, utilizing Form (M-614).

Reports any equipment malfunction to the County Equipment Manager or Mechanic Supervisor and assists the mechanic with repairs when instructed to do so.

Reports any equipment "break down" in the field to the Foreman immediately.

Operates the assigned equipment in a safe and effective manner and performs other duties as assigned.

**Automated Vehicle Location (AVL) Administrator\***

Serves as the statewide contact for AVL technical assistance and troubleshooting. District and County staff should contact the AVL Administrator when local troubleshooting cannot resolve issues or when needing more in-depth assistance with AVL technical problems.

Coordinates activation of AVL devices in new vehicles.

Maintains inventory of all active, spare and out-of-service AVL devices and coordinates vendor repairs and replacements.

Monitors AVL websites to ensure all devices are operating properly and vehicles are properly grouped.

Periodically reviews AVL data to ensure all location and telematics data is reporting properly.

Administers user access and permissions within AVL websites.

Issues replacement AVL devices as needed and assists with procurement of AVL peripherals (i.e. cables, antennas, etc.)

Issues AVL devices for use in Freeway Service Patrol (FSP) vehicles as needed.

Reviews contractor truck needs for each county before the winter season and distributes contractor AVL units as needed.

\*The AVL Administrator works under the supervision of the Maintenance Technical Leadership Division and coordinates AVL technical support, training and troubleshooting with the Fleet Management Division. The AVL Administrator is headquartered at the Fleet Management Division building in Harrisburg.

**Equipment Operator - Daily**

Ensures that equipment is properly maintained (including all operators of personnel vehicles).

Performs daily checks (or greasing where required) on equipment that is operated, including completion of Form M-614.

Operates equipment safely and efficiently.

**Equipment Operator**

Notifies Equipment Manager and Mechanic Supervisor (using Form M-614) of any mechanical problems with the equipment.

Performs minor repairs and adjustments, if approved by County Equipment Manager.

**Mechanic - Daily**

Adheres to the P.M. procedure per Departmental policy.

Completes Forms M-824.

Responsible for performing the P.M.

**Mechanic Supervisor - Daily**

Directly supervises the mechanics and garage personnel employed by the county maintenance District through scheduling of repair work and preventive maintenance of specific pieces of equipment.



**Central Office - Bureau of Maintenance and Operations - Fleet Management Division (Cont'd)**

Ensures that the requirements of the preventive maintenance program are conducted in accordance with this manual.

Assists the mechanics and garage personnel as needed.

**County Equipment Manager - Daily**

Ensures that the preventive maintenance program is conducted and adhered to in accordance with this manual.

Authorizes the purchase of parts and service from outside vendors using the Form OS-531, District Purchase Authorization.

Assigns equipment to operators in accordance with the work schedule for that day.

Reviews and approves all employee payroll forms and leave requests for employees under their supervision.

Reviews Equipment Management System computer reports showing inventory and down changes for the equipment in their organization.

Schedules equipment repairs, as required, in accordance with the needs of the county maintenance program.

**County Equipment Manager - Weekly**

Assigns equipment and operators to meet the requirements of the county maintenance work plan.

Schedules equipment for preventive maintenance and repair work.

Checks work performed for previous week (PM and repairs) to ensure the schedule is being complied with.

**County Equipment Manager - Bi-Weekly**

Schedules the equipment for the PM program in accordance with Chapter 4 of this manual.

**County Equipment Manager - Annually**

Conducts equipment inventory.

Provides District Equipment Manager with annual GSIS inventory.

**District Equipment Manager - Daily**

Assists the County Equipment Manager on any emergency requirements.

Analyzes and approves requests to perform major repairs to equipment or to obtain garage and shop tools.

Controls and coordinates the assignment and transfer of equipment between the District and Counties.

Ensures that all policies and directives are being adhered to by the County Equipment Managers within the District.

**District Equipment Manager - Weekly**

Conducts operator certifications for the Equipment Operator A and B levels.

**District Equipment Manager - Monthly**

Inspects the county garage facilities and storage sheds to ensure such facilities are being maintained efficiently.

Conducts spot checks of selected equipment. Reviews the Preventive Maintenance Program in each county to ensure compliance with this manual.

**District Equipment Manager - Annually**

Conducts spot checks and ongoing inspection of equipment.

Oversees that the annual inventory of equipment is conducted properly.

Ensures that the annual GSIS Inventory is submitted to the Fleet Management Division.

## **CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY**

---

- Introduction:** A major consideration dealing with the management of the Department's fleet of highway maintenance equipment is the process of selection. The selection process relates to the evaluation of economic and operational factors.
- Purpose:** To select equipment tailored to the field's needs through field input and field participation, in the development of equipment specifications.
- Scope:** The policy of selection of highway maintenance equipment applies to all pieces of equipment that have been assigned seven digit identification numbers and for which equipment classification codes have been developed.
- Objective:** To obtain maximum support for minimum cost.

### **1.1 FLEET AND COMPONENT STANDARDIZATION**

The Department follows a component standardization program, which was put into effect in an effort to reduce the repair parts requirement and provide fleet continuity, which has a very positive impact on reducing costs. The standardization program is based upon the following premises:

- Sound fleet management practice.
- Reduction in downtime due to the utilization of time-tested and proven components.
- Standardized components improve the equipment maintenance procedures by developing the familiarity of the mechanics with the components.
- Reduction of repair parts support.
- Preventive Maintenance (PM) charts are reduced due to common components being received on each equipment order.
- Warranties obtained would be common to Department personnel responsible for obtaining warranty benefits.
- Standardization of oil and lubricants along with common components standardization.
- Reduced parts and service manuals library.
- Operator familiarity produces a greater degree of confidence in the unit being operated.
- Reduced repair cost due to increased quantities of the same component (ability to volume-purchase like parts).
- Less training required.

Currently, the following components are included in the standardization program:

Engines	Tires
Transmissions	Dump Body Hoists
Axles	Steering Components
Air Compressors	Air Dryers
Starters	Clutches
Alternators	Brakes
Batteries	

## **CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY (Cont'd)**

### **1.2 TECHNICAL SPECIFICATION DEVELOPMENT & PROCESS**

The District Engineer is notified of their Budget allocation via memo in October. Districts are requested to submit Budget requests to the Fleet Management Division by December. The Fleet Management Division personnel reviews, proofs and approves budget submission with District personnel. Budget reports are created and distributed to the District for final approval by February. Specifications are developed and purchase requisitions are generated. A decision is made to bid or use existing contracts. Purchase requisitions are submitted to Department of General Services for processing. As purchase orders are awarded, pre-bid meetings and pilot model inspections are scheduled with manufacturers. Equipment is received, inspected, accepted or rejected. If approved, equipment is distributed to the field.

Any preliminary requests along with the appropriate Capital Equipment Budget (CEB) order form must be forwarded electronically to the District Executive for approval. A copy of the CEB order form is attached to this document.

Upon approval, the District Executive will forward the approved request to the Director, Bureau Maintenance and Operations as well as a copy to the Fleet Management Division Chief.

Once approved by the Bureau Director, the Fleet Management Division Specification & Buying Section may begin the ordering process.

### **1.3 ECONOMIC AND OPERATIONAL CONSIDERATIONS**

Selection of the type of highway maintenance equipment to be obtained shall include a detailed evaluation of economic and operational factors.

The evaluation of the operational factors shall include consideration of the purpose for which the equipment is to be used, the terrain and geographical area, and whether the equipment can be used for more than one operation.

The economic evaluation shall be based upon prior evaluation, acceptance, and approval. Established specifications and component qualifications can be evaluated based on historical performance, cost comparisons, and the operational requirements of the equipment.

### **1.4 CAPITAL EQUIPMENT BUDGET**

#### **Capital Equipment Budget Process**

- Executive Staff sets tentative funding level for next fiscal year
- Fleet Model Review; establish Utilization Report
- Master Equipment Code List with updated costs for Budget letter
- District Executive notified of their tentative share of the Capital Equipment Budget
- Districts submit list of equipment for purchase to the Fleet Management Division
- Capital Equipment Budget Reports to the Specifications Section for review and correction
- Fleet Management Division meets with each District to review/confirm budget submissions
- DEM enters requested Budget submissions into CEB Database with proper justifications
- Capital Equipment Budget submissions approve by Spec Unit
- Capital Equipment Budget submission approved by District Equipment Manager
- Shopping Cart and Purchase Orders prepared for purchase of equipment
- Take delivery of equipment at the Fleet Management Division
- Inspect equipment for specification compliance
- Release equipment to Districts, enter Goods Receipts

**CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY (Cont'd)****Guidelines to Follow for Capital Equipment Purchases**

- Every Purchase Must Follow The Guidelines In PennDOT's Pub 358 Procurement Manual.
- Every Purchase Made with County Funds, Must Have Prior Written Approval (via Plant Maintenance M7, M-810 advanced approval) by the District Equipment Manager.
- All licensed equipment must be purchased by the Bureau of Maintenance and Operations, Fleet Management Division.
- All equipment with a unit price of \$5,000 and greater must be purchased by the Bureau of Maintenance and Operations, Fleet Management Division. (SEE NOTE\* SECTION BELOW)
- Any purchase must follow Department Guidelines for purchasing, licensing, titling, maintenance, operation, and disposal.
- Purchaser must contact Fleet Management Division for an asset number before Purchase Order can be completed. **P-cards cannot be used to purchase capital equipment.**
- Any requests over \$300,000 - additional justification is needed to show the costs of the planned work compared to the Contractor cost for the same function must be submitted.

**\*NOTE:** An Exception can be made for local purchases of equipment of \$5,000 to \$20,000 utilizing County 124 funds. District/County must get permission from the Fleet Management Division and shall provide a copy of the purchase document to the Fleet Management Division for tracking purposes.

**\*NOTE:** All passenger type vehicles must be purchased through the Fleet Management Division.

1. Initially all ECN's are entered on CEB, after FMD and District review items not purchased as a bulk PO are removed and are then the District/County responsibilities to purchase and track.
2. The ECN Catalog will remain in tact with all equipment available. ECN's less than \$5,000 will be purchased locally at the District/County level using Program **124/ GL 63\***. Refer to guidelines in Pub 358 (PennDOT Purchasing Manual). For guidance and or specifications for local purchase items please contact the Fleet Management Division's Specifications and Buying Section at 717-787-1567.

**Purchase of Capital Equipment (Fleet Management Division processes purchase)**

**POLICY:** Purchase of equipment greater than \$5,000

All equipment funded by the Capital Equipment Budget greater than \$5,000, must be purchased by the Bureau of Maintenance and Operations, Fleet Management Division

**RECEIPT OF NEW EQUIPMENT DELIVERED TO FLEET MANAGEMENT DIVISION**

This procedure details the responsibilities and actions required to enter new equipment (delivered to the Fleet Management Division) to the Plant Maintenance System and transfer it to the appropriate organization as shown on the Capital Equipment Budget.

**Responsibility****Action**

Fleet Management Division . . . . .	Monitors equipment delivery for timely delivery.
New Equipment Section	Receives new equipment from the factory.
	Inspects to ensure specification has been met.
	Prepares a Goods Receipt for the unit to be paid.
	Completes necessary paperwork for title work, etc.

**CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY (Cont'd)****1.4 CAPITAL EQUIPMENT BUDGET (Cont'd)****Purchase of Capital Equipment (Fleet Management Division processes purchase) (Cont'd)**

<b>Responsibility</b>	<b>Action</b>
Fleet Management Division . . . . . Roadway Programs Coordinator	Enters the new equipment into Plant Maintenance after unit is accepted, entering 4990 as the "ORG". Assigns Maintenance Items and Fuel Consumptions if necessary.  Processes Goods Receipt for payment processing. Informs the New Equipment section the unit is in the Plant Maintenance System.
Fleet Management Division . . . . . New Equipment Section	Notifies the District Equipment Manager by telephone and/or email that the unit may be picked up.
District Equipment Manager . . . . .	Assigns someone to pick up new equipment at the Fleet Management Division. Equipment must be picked up within ten (10) working days from receipt of Message.
County Equipment Manager & . . . . . District Equipment Manager	For G Piece's ensures a STD-556 form is sent with any individual picking up new equipment for a District/County and is delivered to the FMD for the release of any new G Piece.
Fleet Management Division . . . . . New Equipment Section	Enters an E5 notification in Plant Maintenance to transfer the unit to the District/County. Immediately accepts the E5 notification.  Completes the Custom Equipment Transfer transaction using the Y_DC1_32000860.  Completes an Equipment Transfer Fuel Input Form indicating transfer of equipment and receives signature of individual picking up vehicle. Turns form into the AFS Section.
Individual Picking Up Equipment . . . . .	Delivers new equipment to an Engineering District or County within the Engineering District.
District/County Equipment Manager . . . . .	Assigns Maintenance Items to a Plan if necessary.

**EQUIPMENT PROCURED BY THE FLEET MANAGEMENT DIVISION AND DELIVERED TO A FIELD UNIT DIRECTLY FROM MANUFACTURER**

This procedure details the responsibilities and actions required to enter new equipment into the Plant Maintenance System when the procurement was initiated by the Fleet Management Division and the equipment is delivered from the manufacturer to a County or District.

<b>Responsibility</b>	<b>Action</b>
Fleet Management Division . . . . .	Monitors equipment delivery schedule for timely delivery.  Notifies the District/County that manufacturer will be delivering new equipment in the near future. Forwards a copy of the specifications to the District Equipment Manager.

**CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY (Cont'd)****1.4 CAPITAL EQUIPMENT BUDGET (Cont'd)****Purchase of Capital Equipment (Fleet Management Division processes purchase) (Cont'd)**

District/County	Receives new equipment and telephones the Fleet Management Division notifying that the expected equipment has been delivered and forwards serial numbers of units delivered to FMD New Equipment Section via email. This is done on the day of the delivery. Notifies the District Equipment Manager that the equipment has arrived. Inspects equipment prior to acceptance, to determine if unit(s) fully meet specifications.
District Equipment Manager	Inspects the equipment to ensure that specifications have been met. If specifications have not been met, contact Fleet Management Division - Specifications Section for problem resolution.
Fleet Management Division	<p>Receives email/telephone notification of new equipment Delivery from District or County office.</p> <p>Inputs equipment into Plant Maintenance System and assigns the equipment to organization 4990.</p> <p>Each piece of equipment will have a W1 Notification created to make the receiving county aware of any free training available. The Notification will contain contact name and phone number.</p> <p>Creates an E5 notification in Plant Maintenance to transfer the unit to the District/County. Immediately accepts the E5 notification</p> <p>Completes the Custom Equipment Transfer transaction using the Y_DC1_32000860.</p> <p>The Department logo's and equipment number labels are then sent to District/County.</p>
District/County Equipment Manager	Permanently affixes equipment number label and Department logo's to unit. Verify all documentation and unit information corresponds with Plant Maintenance data. Checks the W1 Notifications for Training and contacts the appropriate vendors to set up training.

**PURCHASE OF CAPITAL EQUIPMENT (DISTRICT/COUNTY PROCESSES PURCHASE)**

**Policy:** Purchase of equipment under \$5,000.

Items costing less than \$5,000 MUST be purchased using District/County local coding in **Program 124 / GL Account 63\***.

All equipment purchases, no matter of the dollar threshold, require an asset number for purchasing reasons to capture the rental rates. These numbers are created for the Account Assignment on a Purchase Order to purchase equipment.

The District/County Equipment Manager will complete the Asset # / Equipment # Request form located on the BOMO-Fleet Management Division website and submits to the Roadway Programs Coordinator (RPC). The Asset number must be created before creation of a purchase order. The Fleet Management Division RPC will return the form with the assigned asset number for the purchase. At this time the District/County will create the purchase order.

**CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY (Cont'd)****1.4 CAPITAL EQUIPMENT BUDGET (Cont'd)****Purchase of Capital Equipment (District/County processes purchase) (Cont'd)**

Once the equipment is delivered to the District/County; the District/County Equipment Manager will send the form back into the Fleet Management Division, RPC for assignment of the equipment number and entry of unit into Plant Maintenance.

This procedure details the responsibilities and actions required to enter new equipment to the equipment file when the procurement was initiated by a District or County and the equipment is delivered from the manufacturer to a District or County.

<b>Responsibility</b>	<b>Action</b>
District/County .....	Monitors equipment delivery schedule for timely delivery.  Receives new equipment. Notifies the District Equipment Manager that the expected equipment has been delivered.
District Equipment Manager .....	Inspects the equipment to ensure that the specifications have been met. If unit does not meet specification contact the Fleet Management Division, Specification & Buying Section at 717-787-1567.
County/District .....	Completes the Asset # / Equipment # Request form and emails to the Fleet Management Division, RPC to request an Equipment # and to put the unit into the Plant Maintenance System.
Fleet Management Division Roadway Programs Coordinator .....	Receives the Asset # / Equipment # Request form and assigns an equipment number.  Enters the equipment into Plant Maintenance and assigns it to organization 4990. Assigns any Maintenance Items or Fuel Consumptions.  Enters the E5 notification reflecting transfer of the equipment to the organization to which it has been delivered. Immediately Accepts the transfer.  Completes the Custom Equipment Transfer transaction using the Y_DC1_32000860. This is done the same day that notification of receipt is given.  Emails the District/County back with the completed Asset # / Equipment # Request form.
Fleet Management Division .....	Generates equipment number labels and forwards New Equipment Section Department logos to the District/County (if applicable).
District/County .....	Permanently affixes equipment number label and logos to unit. Verify all documentation and unit information corresponds with Plant Maintenance data.



## **CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY (Cont'd)**

### **1.4 CAPITAL EQUIPMENT BUDGET (Cont'd)**

#### **Request for Additional Purchases**

All preliminary requests will require the appropriate CEB order form and a completed justification form to be approved and initialed by the District Executive. A copy of the initialed CEB order form and the justification are to be attached to the Data Base submission. Any purchase over \$300,000 requires additional justification to show the cost of the planned work compared to Contractor cost for the same function.

The District Equipment Manager (DEM) will then submit this request through the Capital Equipment Database attaching the District Executives approval, the CEB order form and the appropriate justification form for each piece of equipment requested. Any special notes concerning the configuration of the requested equipment shall be noted in the comments section of the Database. "One for One" purchase or additional piece of equipment will need to be selected. If item requested is not "one for one" a justification will need attached before item submission will be allowed.

Once the request is entered into the database and submitted by the DEM, the request will go through the CEB Database approval process. The sequence of the approvals is as follows: DEM → Fleet Management Division (FMD) Specifications Section → DEM → FMD Chief → ADE-M → BOMO Bureau Director → FMD. At each point in the process a system generated e-mail will notify the party that their approval is required. If at any point in the process, the request is rejected, comments will need added and the request will be returned to the previous approver for further explanation or justification.

Once final approval is received, FMD Specification Section will begin the ordering process.

#### **Auction Proceeds**

##### **Heavy Equipment Auctions**

All proceeds from the Heavy Equipment Auctions go back to the Fleet Management Division with exception to the following;

Trucks 32,000 GVW and over (Category A): Examples: Special Purpose Trucks, Dump Trucks, Misc. Trucks, Truck Tractor and Lowboy Trailer (when sold as a complete unit, if sold separately, the county will only receive auction funds for the truck tractor).

**NOTE:** Proceeds for Paint Trucks, Bridge Cranes go to the Fleet Management Division.

Proceeds back to the District/County are placed in Program 711 / GL 63

Proceeds back to the Fleet Management Division are placed in Program 124 / GL 64

#### **Process**

An Email notification with total proceeds is sent from DGS to the Fleet Management Division notifying amount of proceeds received.

**NOTE:** Spring Auction proceeds are held at DGS until after beginning of new FY).

Roadway Programs Coordinator prepares the proceed breakdown identifying distribution to the proper District/County and Fleet Management Division and forwards to the Administrative Assistant.

The Administrative Assistant forwards an email to the DEM's for verification of equipment and proceeds to be deposited.

Upon verification by DEMs, Auction Proceed Breakdown is forward to BFM and OB for system input.

#### **Auction Fees:**

DGS Sponsored Auction document processing fee: \$500 (per auction)

PennDOT Host Fee: \$10,000 paid to County Hosting Auction

#### **Other Agencies**

Another State Agency purchases our equipment at auction; funds will be deposited into the Fleet Management Division's Program 124 GL 64\*.



## **CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY (Cont'd)**

### **1.4 CAPITAL EQUIPMENT BUDGET (Cont'd)**

#### **Auction Proceeds**

#### **Central Sales (DGS Vehicle Management Sales)**

These sales include; all passenger vehicles, vans, pickups, crew cabs.

All proceeds from the Central Sales go to the Fleet Management Division into Program 124 GL 64.

#### **Process**

Check is received from auctioneer for all proceeds received at auction.

Check is deposited into SAP via FVB50 transaction and forwarded to the Dept. of Revenue.

### **1.5 EXPERIMENTAL PROJECTS**

#### **Purpose:**

To evaluate by obtaining "hands on" and "in house" experience with new types or updated revisions of equipment, attachments, and products. This procedure will provide an information base. The use of this information will enable more efficient management decisions for future purchases.

#### **Objectives:**

1. To ascertain performance, ease of use, maintainability, reliability, and to obtain cost comparisons and acquisition price.
2. To find out what makes one product better even though several manufacturers may produce the same or similar equipment.
3. The final goal is to obtain the best possible product at the best possible price.

#### **Establishment:**

Experimental Projects are established by direction of the Bureau of Maintenance and Operations. The field may originate a request but shall obtain approval from the Chief of the Fleet Management Division prior to the implementation of Experimental Projects. Requirements for establishment include but are not limited to:

- A. Comparing one product against a competing product.
- B. Evaluating vendors' claims.
- C. Qualifying additional suppliers.
- D. Checking new equipment and staying abreast of the "State of the Art".

#### **Control A**

1. All experimental projects will be assigned a project number.
2. Projects will be assigned to Districts/Counties by transmittal letters which will describe the scope of the project.
3. Reporting due dates will be established via transmittal letter.
4. Reports will be submitted against the experimental project number.
5. Rental/liability agreements will be pre-arranged and signed.

## CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY (Cont'd)

### 1.5 EXPERIMENTAL PROJECTS (Cont'd)

6. An Experimental Project Evaluations folder has been created on the Fleet Management Division's "P" Drive, which can be accessed to view project tracking forms, evaluations and general project literature. This folder can be accessed by logging into the Fleet Management Division's Intranet and accessing the Fleet Management Division's in boxes link.

### 1.6 TRUCK AND CONSTRUCTION EQUIPMENT WARRANTY

#### GENERAL

Refer to the 'Plant Maintenance "IE03" screen for unit warranty. In-depth component coverage and claim history can be accessed utilizing the attached warranty documents on the "IW21" screen.

#### PROCEDURE FOR IMPLEMENTING REPAIRS

In the event that a breakdown occurs, the OEM or Manufacturers authorized repair center of record shall make the complete repair, or if an in-house warranty program exists for the vendor, then the repair can be made at the county maintenance facility by Department personnel.

##### A. DEPARTMENT PERFORMS REPAIRS:

Reimbursable warranty: Repair work can be done with vendors that have an in-house warranty agreement with the Department.

All other repair work is to be performed by the main OEM or authorized repair center located in close proximity of the county maintenance facility.

**NOTE:** If an in-house warranty program does not exist for the failed piece, and vendor repair is not practical, due to a weather event, after hours, etc., then the repair can be made in-house and an A1 submitted for reimbursement.

##### B. VENDOR PERFORMS REPAIRS:

The repair work is to be performed by the vendor or their duly authorized representative. A copy of the vendor's work orders shall be supplied to the County Equipment Manager and District Equipment Manager. Repairs assigned to the vendor can be performed at the vendor's place of business, at their duly authorized representative's place of business, and, whenever possible, at the county maintenance facility or field locations.

If services are to be performed at the Department's county maintenance facilities or in the field, the vendor must provide proof of insurance.

County Equipment Manager shall notify the successful vendor or their duly authorized service representatives that the equipment is down for component repairs and follow the Department standard procedure for handling warranty problems as per this warranty. At this time of notification, the location of repair is to be mutually agreed upon. Any subjective decision concerning repairs shall be clarified by the Fleet Management Division. All work orders against the warranted repair(s) shall be kept in the Department's Equipment History File at the county maintenance facility.

Under the terms of this contract, the successful vendor shall be responsible for beginning repairs within two (2) working days after the date of receipt of equipment from the Department to the responsible vendor.

Repairs shall be completed and the equipment shall be ready for pickup within eight (8) working days after the date of receipt. If verbal notification is given and it is decided that the equipment can be field repaired, the repairs shall begin within two (2) working days from the date the vendor is notified. Repairs shall be made with OEM-parts.

**NOTE:** To Department Equipment Managers:

Ask the vendor's service manager for a completed copy of the repair invoice. There is a customer copy and the Department requires a copy to monitor all costs related to this purchase and to document all warranted repairs.

## **CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY (Cont'd)**

### **1.6 TRUCK AND CONSTRUCTION EQUIPMENT WARRANTY (Cont'd)**

#### **WARNING: TO COUNTY AND DISTRICT EQUIPMENT MANAGERS:**

Any unit found to be abused through overloading, lack of PM, etc., may result in the reassignment of the equipment to another county headquarters.

The OEM representative shall be making periodic field inspections to verify that proper oil, PM and utilization techniques are being followed as per the Department policy.

Any unit which is not maintained according to the manufacturer's guidelines may void the warranty.

#### **OBTAINING SERVICE**

The servicing location, prior to performing any work covered by this warranty contract must obtain an authorization number from the successful vendor.

#### **TRANSPORTATION**

When repairs are to be performed at the vendor's place of business or their duly authorized representative's place of business, transportation of the equipment shall be made by the Department in accordance with decisions made under Section IIB.

#### **MONITORING PROCEDURES**

The Fleet Management Division shall monitor and identify all repair costs associated with each equipment repair. Refer to Plant Maintenance/equipment subsystem.

The Department shall maintain the equipment as per the manufacturer's recommendations prescribed in the operator's handbooks and service books provided with each unit, and as per any supplemental recommendations which shall supersede these.

#### **ARBITRATION DUE TO AN IMPASSE**

If a difference of opinion exists between the vendor and the Department regarding responsibility for failure, the Failure Analysis Team comprising vendor and Department employees shall resolve the differences in an amicable and conscionable manner.

### **1.7 DEFECTIVE EQUIPMENT REPORTING SYSTEM (PLANT MAINTENANCE A1)**

#### **Purpose:**

The purpose of the Defective Equipment Reporting System is to:

- A. Report warranty problems immediately on A1 transaction in Plant Maintenance. **NOTE:** the "Y" indicator must be set within 30 days after the work order is closed if requesting reimbursement for an in-house warranty repair or to dispute charges billed by a commonwealth vendor.  
  
A1 warranty claims requesting reimbursement should contain.
  - 1) Complaint - Information of the defect.
  - 2) Cause- Information that caused the defect.
  - 3) Correction- Description of repairs made, hours/mileage, part numbers or a copy of the vendor repair order.
- B. **Report out-of-warranty equipment problems that appear to be of a serious nature resulting from poor workmanship, manufacturing defects, etc. Primarily, any component failure less than two years old or high cost components (\$500.00 or more) regardless of age.**

## **CHAPTER 1: SPECIFICATIONS, CAPITAL EQUIPMENT BUDGET, NEW EQUIPMENT & WARRANTY (Cont'd)**

### **1.7 DEFECTIVE EQUIPMENT REPORTING SYSTEM (Plant Maintenance A1) (Cont'd)**

- C. Share information, both problems and solution, regarding defective equipment with other county and District organizations.

Although out-of-warranty problems must be resolved by the field, it is most essential that this data be reviewed and analyzed by the Fleet Management Division in order to determine whether or not the problem can be eliminated in future equipment purchases as well as to find an immediate solution.

Additionally, the information supplied by the Districts through the Defective Equipment Report has helped to eliminate problems Statewide through the publication of Technical Bulletins.

It is anticipated that a more thorough follow-up action of the Defective Equipment Report can become a useful tool in helping the District Equipment Manager solve some of the field problems.

#### **Objective:**

The objective of the Defective Equipment Report system is to identify and collect facts concerning the problems or failure of equipment, to determine the extent of the problem statewide, and to get suggestions for corrective action from the end user.

#### **Procedures:**

Refer to Plant Maintenance User's Manual on Defective Equipment Reporting for assistance in updating screens and completing A1 transaction.

### **1.8 DEPARTMENT PAINT POLICY**

Equipment Paint Color Savings Policy

Penn DOT yellow VS OEM

- A. Core Equipment (trucks, tractors/trailers, loaders, excavators, graders and backhoes) must remain some shade of yellow. Penn DOT yellow will be required if the cost is less than \$400.00 per unit.
- B. Varying shades of yellow and white/cream paint may be accepted on other than core equipment IF the savings is greater than \$500.00 per unit
- C. Alternate colors MAY BE CONSIDERED if the savings is greater than \$500.00 per unit and the number of units to be purchased exceeds 20 units annually. Acceptance of alternate colors would be cleared through the Director of BOMO.
- D. Alternate colors MUST be accepted if the savings is greater than \$5,000.00 per unit regardless of the type of unit with the exception of our truck fleet (alternate colors must also be accepted if it is the only product of its kind on the DGS power equipment contract.)

### **1.9 NEW "G" PIECE DISTRIBUTION**

A STD-556 form must be filled out and delivered to the New Equipment Section for each new "G" piece that is to be picked up. No Exceptions! Any "G" piece ready for pickup will be held at the FMD until a STD-556 is exchanged for its release.

## **CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS**

**NOTE:** Each form referred to in this Equipment Maintenance & Management Policies Manual is located in digital form on the Fleet Management Division Intranet Site @ <http://dot.state.pa.us/PennDOT/bureaus/intranet/BOMOintra.nsf/homeED>.

Plant Maintenance provides the Department the capability of monitoring and controlling all maintenance operations and resources.

Plant Maintenance is designed to support the Districts and Counties with their maintenance responsibility by providing better and more timely information. Plant Maintenance also supports the Central Office by providing accurate summaries of maintenance production and performance.

The Plant Maintenance SAP Info Center accessed via Outlook, daily, is the procedure manual and should be consulted for further information on procedure. It contains procedure information on Repair Tasks/Work Orders, Equipment Inventory, Garage and Shop Tool Inventory, Standards and Payroll.

### **2.1 EQUIPMENT MANAGEMENT SYSTEM**

- Overview:** In order to control equipment, Equipment Managers need two types of information. One need is guidelines, from the general to the specific, which this manual provides.
- Equipment Managers also require information about their work efforts and certain aspects of the equipment for which they are responsible. Plant Maintenance is designed to provide this information.
- Purpose:** To aid operating personnel at all levels in their effort to derive maximum benefit from the Department's equipment resource investments.
- Scope:** The scope encompasses the designation of responsibilities for maintaining an accurate inventory of Department equipment, as well as describing screen formats and output records.

#### **Major Plant Maintenance/Equipment Objective**

To provide current equipment information going to three levels of management (County, District, and Central Office), thereby enabling management to make better use of the Department's equipment resources.

#### **Specific Plant Maintenance/Equipment Objectives**

1. Development of efficient procedures for the reporting of equipment-related data to assure correct computer inventories of department and rented equipment.
2. Maintain an equipment classification coding structure to provide a means to identify equipment by functional groups and/or structural similarity.
3. Provide management at all levels with an effective means to exercise its planning responsibility through development of objective data with which to evaluate the following: depreciation and aging of equipment; utilization of Department and rented equipment; scheduling of equipment for proper mix; and replacement of equipment.
4. Provide management at all levels with an effective means to exercise its control responsibility through development of objective data regarding equipment downtime, garage performance, preventive maintenance and operating costs.
5. Provide a means to affect efficiencies in usage and economy in operations and to measure and report the same in quantification terms in annual periods of measurement. This will include, but not be limited to, the following items:
  - a. Increase the use of Department equipment as a percentage of maximum available time by a predetermined amount.

## **CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)**

### **2.1 EQUIPMENT MANAGEMENT SYSTEM (Cont'd)**

#### **Specific Plant Maintenance/Equipment Objectives (Cont'd)**

- b. Reduce by a predetermined percentage, the use of outside rented equipment hours as a percent of Department equipment, recognizing the PMO reductions below levels identified in Resource Balancing will impact this goal.
- c. Reduce by a predetermined percentage, equipment downtime for a given annual period.
- d. Reduce incidence of unscheduled repairs by a predetermined percentage.
- e. Reduce by a predetermined percentage, the amount of time per type of repair activity.
- f. Reduce by a predetermined percentage, the adjusted operating cost per vehicle type.
- g. Reduce by a predetermined percentage, equipment inventory as a result of increasing equipment use to a predetermined percent of maximum possible use.

#### **6. Equipment Notifier Role in Plant Maintenance**

The Equipment Notifier role in Plant Maintenance contains seven different types of notifications. They are:

W1 - Equipment Repair Notification

A1 – Defective Equipment Notification

M7 – Advanced Tool Request Notification

M8 – Equipment Modification

E5 – Equipment Transfer

ED – Equipment Disposal

V0 – Theft and Vandalism

The Equipment Manager is directly responsible and accountable for the proper and appropriate use of the Equipment Notifier role which includes the ability to create, update, and list all notifications. In the Equipment Manager's absence, the Mechanic Supervisor may assume the responsibility and accountability for the role.

The Equipment Manager is directly responsible for performing the following notifications:

Equipment Modification (M8)

Equipment Transfer (E5)

Equipment Disposal (ED)

Theft and Vandalism (V0)

Advanced Tool Request (M7)

Support Staff provide clerical support by data entering information from the M-614 into the system using the Equipment Repair Notification (W1) and the Defective Equipment Notification (A1).

**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)****2.1 EQUIPMENT MANAGEMENT SYSTEM (Cont'd)****Equipment Classification**

Current equipment classification is designed for two purposes. The equipment number, affixed to the equipment, is designed for identification and control purposes.

Equipment Classification Codes (ECC) are designed so that similar equipment may be grouped together for report purposes and to provide a more extensive description. The ECC code, entered on the computer, is not affixed to the equipment.

**1. ASSET NUMBER**

Each piece of equipment is assigned an asset number for purchasing reasons. There are 3 different class codes based on the unit price of the equipment. There are as follows:

- a. 1906000- Equipment \$25,000 and greater.
- b. 1910000- Equipment costing between \$5,000-\$24,999.
- c. 1910100- Equipment costing less than \$5,000.

These numbers are created to code a PO for purchase orders pertaining to any equipment purchase. An Asset Number Request form is available on the BOMO-Fleet Management Division website to request an asset number for an equipment purchase. These need to be sent into the Fleet Management Division prior to creating a PO. You will also use this form to request an Equipment number for the purchase once the unit(s) comes in for delivery.

**Note:** If a single tool purchase is over \$25,000, an asset number must be obtained for that also.

**2. EQUIPMENT NUMBER**

Each piece of maintenance equipment is assigned a unique seven digit equipment number for purposes of identification. In the past, this number also served to describe the equipment to which it was assigned. However, with the need to compare like Department and rented equipment, and the need to describe equipment in more details, a new way of identifying descriptive information about equipment was developed. Thus, the seven digit number assigned to equipment should be treated as a "serial number" or "social security number". Just as a social security number does not indicate that one's eyes are blue, equipment numbers assigned do not indicate the make or kind of equipment.

**3. EQUIPMENT DESCRIPTIONS**

Nine general "classification" are defined for maintenance equipment. In addition, "a specific description" and "Equipment Classification Code" (ECC) have been developed for each piece of equipment.

As an Example:

GENERAL CLASSIFICATION	SPECIFIC DESCRIPTION	ECC
Category . . . . .	Trucks . . . . .	A
Class . . . . .	Dump . . . . .	15
Type . . . . .	General Purpose . . . . .	BU
Subtype . . . . .	Wheel Drive . . . . .	D
Capacity . . . . .	36,000 - 40,000 lbs. . . . .	AM
Transmission . . . . .	Manual . . . . .	4
Power . . . . .	Gasoline . . . . .	D
Manufacturer . . . . .	International Harvester . . . . .	IHC
Model Year . . . . .	1979 . . . . .	79

**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)****2.1 EQUIPMENT MANAGEMENT SYSTEM (Cont'd)****Equipment Classification (Cont'd)****EQUIPMENT DESCRIPTIONS (Cont'd)**

The "ECC" for each piece of maintenance equipment is on the computer files and cross indexed with equipment number. Depending upon need, equipment reports and terminal displays will show ECC and specific equipment descriptions.

Because the ECC is not unique to each vehicle, (two identical automobiles would have the same ECC), equipment management system reports group all automobiles or all rollers together. As an example:

<b>CATEGORY "G" PERSONNEL VEHICLES</b>						
<b>CODE</b>	<b>RATE</b>	<b>EST LIFE</b>	<b>CLASS</b>	<b>TYPE</b>	<b>SUB-TYPE</b>	<b>CAPACITY FROM-TO UNIT</b>
45 BS A AA	\$.31	48 MO	SEDAN	FOUR DOOR	CONVENTIONAL	0 - 5000 LBS
51 BU A AA	\$.17	48 MO	STA. WAGON	GENERAL PURPOSE	CONVENTIONAL	0 - 5000 LBS
59 BU A AB	\$.42	84 MO	UTILITY	GENERAL PURPOSE	CONVENTIONAL	5000 - 7000 LBS

The example above displays an ECC listing. Codes and the description, to which they apply, have been "linked" on the first line. Due to space limitations, only the first five general equipment classifications are shown here.

As all of the vehicles on the exhibit page are personnel vehicles, each has a "G" as the first character of its ECC code category. All sedans have "45" as the second two characters in their code class. As the "type" of sedan changes from "four door" to "two doors" the code changes from "BS" to "FD". However, notice that as that change takes place, the class code remains the same. This demonstrates the "independence" of each element of the coding system which ultimately allows the easy grouping of similar equipment.



**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)****2.1 EQUIPMENT MANAGEMENT SYSTEM (Cont'd)**

<b>Truck</b>	<b>Winter Control Equipment</b>	<b>Road Surface Maintenance Equipment</b>	<b>Vegetation Control Equipment</b>
Tandem Dump General Purpose Dual Wing Capable Left Wing Capable Right Wing Capable Bridge Inspection Tri-Axle Dump Post Driver	Snow Blower Grader Loader Snow Plow Heavy Rev Plow High Speed Plow	Patcher Patch Roller Kettle Bituminous Para Plastic Tack Coat Paver	Mower Sprayer Tractor Mower Flail Rotary Sickle Sickle-Flail
<b>Earth Moving Equipment</b>	<b>Traffic Service Equipment</b>	<b>Personnel Vehicles</b>	<b>Other Controlled Equipment</b>
Belt Loader Skid Steer Maintainer Excavator Loader Articulated Rigid Tractor	Vacuum Sweeper Cleaner Light Arrow Flood Message Traffic Signal	Sedan Station Wagon Utility Van General Purpose Road Rater Paint Rater Video Logging	Trailer Flat Bed Lo-Boy Utility Pump Mobile Training Unit Attenuator Special Purpose

Above is a sampling of Equipment from 8 of the 9 Equipment categories. They are Personnel Vehicles, Trucks, Earth Moving Equipment, Road Surface Maintenance Equipment, Vegetation Control, Traffic Service Equipment, Winter Control Equipment, Other Controlled Equipment, and Non-Rental (not shown).

**Equipment Inventory**

Department-owned equipment plays a key role in the fulfillment of the Department's Maintenance responsibilities.

The effective and efficient discharge of the maintenance responsibility requires that Department equipment be utilized to the maximum extent possible.

A primary consideration in equipment management is accountability for equipment inventory. Equipment managers are accountable for all items of inventory entrusted to their care for the purpose of meeting the Department's objectives.

Annually, and upon demand the Equipment Manager must be able to produce and account for the physical items of equipment inventory for which responsibility has been accepted or they must produce documentation required by Department procedures to reconcile any differences. The documentation required by Department procedures for accountability will include:

- Inventory of equipment on hand at date of assuming equipment manager position and as required throughout the year, but never less than on an annual basis. A signed inventory report list will confirm responsibility acceptance.
- Responsibility for the addition of new equipment will be considered accepted upon receipt of a signed acceptance form.
- Disposal of equipment will be evidenced by the signed forms as required by the established procedures.
- Equipment lost by theft will be accounted for by reporting the theft through Plant Maintenance. Input the Police report number in the notification.

This applies to the equipment manager in each Maintenance District, Engineering District and the Fleet Management Division of the Bureau of Maintenance and Operations.

**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)****2.1 EQUIPMENT MANAGEMENT SYSTEM (Cont'd)****Equipment Inventory (Cont'd)**

In order to group equipment for summary reports on the availability of equipment and use of equipment, all equipment is assigned a seventeen digit alpha-numeric code in accordance with the Equipment Classification Code structure (ECC).

**NOTE:** The Radio Inventory will be performed in conjunction with the Equipment Inventory.

This procedure details the action and responsibilities necessary to perform an annual physical inventory of numbered equipment.

Fleet Management Division (RPC) . . . . . Runs the Equipment Inventory Reports for each District and County the last week of October.

Attaches a memo from the Director of BOMO and mails to Districts and notifies DEM's by email.

District Equipment Manager . . . . . Receives an electronic copy of inventory report for each county the first week in November. Prints and distributes the report to Counties within three (3) working days.

County Maintenance Manager . . . . . Receives one copy of the inventory report by the 15th of November.

Instructs County Equipment Manager to physically inventory items in their jurisdiction within three (3) working days and initial the report next to the equipment numbers they had inventoried.

Inventories equipment in the garage and yard area and initials report next to the equipment numbers inventoried.

Reviews report to determine that all items are accounted for.

Original working copy must be accounted for individually.

If there are differences in the print out inventory and the actual inventory, make reconciliation:

- a. Mark "transferred", the date and the four digit code of the organization where transferred next to the equipment number of any equipment transferred out of the organization since the date of the report.
- b. Mark "ED" (Equipment Disposal) and date next to the equipment number for any equipment appearing on the report that there is an approved ED Notification for.
- c. Mark "theft" or "loss" and the date a theft or loss report was filed next to the equipment number if there is no approved ED on file.
- d. Add to the report the equipment number of any equipment transferred into the organization, the organization from which it came and the date of the transfer. This will be done for any equipment transferred into the organization since the date of the report.

**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)****2.1 EQUIPMENT MANAGEMENT SYSTEM (Cont'd)****Equipment Inventory (Cont'd)**

District Equipment Manager . . . . .	Inventories all equipment assigned to the District Office. District scheduled equipment is considered to be assigned to the District Office.
County Equipment Manager . . . . .	Makes a copy of the original inventory report for file in the County Office and retains for seven (7) fiscal years. Prepares cover letter and forwards it with the original inventory report to the District Equipment Manager by the date issued by the Fleet Management Division for that year. The cover letter is to include names and titles of individuals taking the inventory and an explanation pertaining to un-reconciled differences between the computer inventory and the physical inventory.
District Equipment Manager . . . . .	Receives inventory report from each county and reviews it, making note of any un-reconciled differences for follow-up action.  Completes inventory of District equipment in accordance with instructions as noted above (See County Equip. Manager).  Prepares a District summary report, by county, of any reconciled differences and forwards it with original copy of the inventory reports for the District to the Fleet Management Division no later than the date issued by the Fleet Management Division for that year.
Fleet Management Division, RPC . . . . .	Receives inventory reports and reviews them. Prepares a statewide summary report, by District, of any un-reconciled differences and submits report to the Director, Bureau of Maintenance and Operations. Files inventory reports and retains for seven (7) fiscal years. All inventory to be completed and closed out by January 31st.
Director of Bureau Maintenance . . . . .	Reviews summary reports of un-reconciled inventory differences and takes appropriate action.

**2.2 GARAGE AND SHOP TOOL INVENTORY SYSTEM****Organization and Control**

**Purpose:** By official policy to establish a means to organize and control tools in the Fleet Management Division, maintenance Districts, county garages, specialized crews, foremen, individual personnel, and any area where tools are assigned and used in the Bureau of Maintenance and Operations.

1. Inventoried Garage and Shop Tools – These tools generally have a mechanized or power operation and are of a significant monetary value and warrant control. Generally, they are those special and power tools required by employees to perform their function. This would include, but not be limited to: large wrenches, drills, impact tools, voltage testers, sanders, etc.
2. Authorized Personnel - Those individuals assigned to a maintenance organization who may receive garage and shop tools from the storekeeper on a daily basis in order to perform their function and those individuals who may require use of garage and shop tools on an infrequent basis as well as frequent in order to perform their functions.

**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)**

**NOTE:** Those individuals and crews who need certain tools daily to perform their normal and regular duties should have those tools purchased and permanently assigned to them and so identified on the Plant Maintenance Subsystem. This will allow maximum productivity for the crew and assure that the shop will have the tools necessary for their duties.

**Requirements**

1. Obtain approvals via M7 notification for purchase.
  - **IMPORTANT:** If a tool is over \$25,000, an Asset # must be obtained from the RPC at the Fleet Management Division.
2. Assign tool numbers via IE01 to new tools and add to Plant Maintenance master data for tools.

When adding a new tool...

Acquisition date:

Acquisition value:

Serial #:

Manufacturer:

Model #:
3. Maintain inventory in Plant Maintenance.
4. Perform a physical inventory at least one time yearly.
5. Properly document and dispose of when tool has reached the end of its useful life.

**NOTE: M7 Notifications are not required for tools that the purchase price is \$100 or less.**

**Tool Policy**

Tools purchased with a value under \$100.00 are not required to be approved through the M7 Notification process and placed on the Tool Inventory. Should the District or County desire to inventory tools under \$100.00 the M7 notification process can be used to record purchase information and assign a tool number at their discretion.

**Responsibilities**

1. County Equipment Manager (ONLY)

Determines who will be assign tools and prepares sub inventory to be signed annual and maintained with tool inventory.

  - Assign GSIS (Garage and Shop Inventory System) and new four digit tool numbers to tools.
  - Establish and maintain garage and shop tool inventory in Plant Maintenance.
  - Determine who is authorized to receive garage and shop tools and communicates this information to the Garage Clerk so that a roster may be typed.
  - Perform annual inventory to verify presence and condition of all garage and shop tools.

**TOOL INVENTORY MANAGEMENT SYSTEM MASTER LIST**

NOMENCLATURE	TOOL TYPE
Alignment Set--Front End.....	158
Analyzer--Engine, All Types .....	005
Anvil--Blacksmith's .....	006
Balancer--Wheel.....	007
Bar--Toe-in .....	124
Bleeders--Pressurized Brake .....	008

**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)****2.2 GARAGE AND SHOP TOOL INVENTORY SYSTEM (Cont'd)****Organization and Control (Cont'd)****TOOL INVENTORY MANAGEMENT SYSTEM MASTER LIST (Cont'd)**

NOMENCLATURE	TOOL TYPE
Box--Tool .....	145
Broom, Power Handheld .....	208
Bushing Driver Set .....	010
Cage--Tire .....	159
Changer--Tire .....	011
Charger— Battery .....	012
Compressor--Air .....	014
Compressor--Strut .....	171
Concrete Dri-Pak Ki .....	182
Concrete Mixer .....	183
Concrete Screed .....	184
Concrete Vibrator .....	204
Crane--Floor .....	015
Crimping Tool .....	173
Cutter--Key .....	170
Cutter--Pavement .....	179
Cutter--Pipe .....	177
Dolly .....	016
Drill Press .....	017
Drill--Portable Air .....	163
Drill--Portable Electric .....	020
Drill—Rock .....	194
Earth Auger (hand held type) .....	185
Edger / Trimmer / Weedeater .....	186
Extractor--Set .....	023
Filter Buggy .....	024
Flaring Tool .....	172
Gauge--Brake .....	029
Gauge--Compression .....	030
Gauge--Hydraulic .....	033
Gauge--Micrometer .....	034
Gauge--Pressure .....	031
Gauge--Suspension .....	027
Gauge--Vacuum .....	039
Generator (Except Towed) .....	187
Grinder--Bench 041	
Grinder--Engine .....	043
Grinder--Portable .....	040
Gun--Paint / Paint Spray .....	048
Gun--Rivet .....	174
Hammer--Air .....	049
Hammer--Electric .....	050
Hammer--Rotary .....	166
Heat Lance .....	188
Heater--Portable .....	051
Hoist--Chain .....	052

**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)****2.2 GARAGE AND SHOP TOOL INVENTORY SYSTEM (Cont'd)****Organization and Control (Cont'd)****TOOL INVENTORY MANAGEMENT SYSTEM MASTER LIST (Cont'd)**

NOMENCLATURE	TOOL TYPE
Hone.....	055
Jack--Bottle .....	057
Jack--Floor .....	058
Jack--Transmission .....	061
Jointer.....	063
Lathe .....	161
Lathe--Brake .....	066
Lawn Mower (Non riding) .....	189
Lift--Vehicle.....	070
Machine--Banding .....	153
Meter—Hydraulic Flow .....	079
Nailer—Power (Air, Electric, Gas) .....	209
Parts--Washing .....	083
Pavement Breaker (All) .....	190
Power Blower, Portable .....	191
Press-- .....	084
Pressure Washer .....	192
Pruner, Trimmer .....	193
Puller Set .....	085
Pump--(Flocs).....	167
Pump, Fluids & Lubricants .....	073
Pump, Water Except Towed .....	205
Pumps--Paint .....	088
Pump—Trash, Except Towed .....	203
Purifier--Air .....	178
Ram--Hydraulic (Porta Power) .....	089
Reamer Set .....	091
Roto Tiller .....	195
Sand Blaster.....	075
Sander--Air .....	096
Sander--Electric .....	099
Saw--Band .....	101
Saw—Chainsaw.....	196
Saw—Cutoff .....	197
Saw--Radial .....	104
Saw--Sabre .....	106
Sharpener.....	108
Snow Blower, Walk Behind .....	198
Socket/Ratchet Set.....	147
Stand—Jack (# Each Stand Individually) .....	110
Start-All.....	112
Steam Cleaner .....	199
Stud Gun, Operator Held.....	200
Tamper, Plate .....	201
Tamper, Upright .....	202

**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)****2.2 GARAGE AND SHOP TOOL INVENTORY SYSTEM (Cont'd)****Organization and Control (Cont'd)****TOOL INVENTORY MANAGEMENT SYSTEM MASTER LIST (Cont'd)**

NOMENCLATURE	TOOL TYPE
Tap and Die Set .....	114
Tester--Electric .....	116
Tester--Headlight .....	118
Tester--Radiator .....	119
Testers--Injector .....	115
Truck--Pallet .....	126
Vacuum--Cleaner .....	146
Vise--Machinist .....	130
Welder, Portable Electric .....	207
Welder--Acetylene .....	132
Welder--Electric .....	133
Wrench Set.....	134
Wrench--Adjustable .....	135
Wrench--Air Impact .....	136
Wrench--Electric Impact.....	139
Wrench--Hydraulic Impact .....	140
Wrench--Torque .....	143

**Garage and Shop Tool Inventory System**

The Garage and Shop Tool Inventory System (GSIS) has been developed to better meet the needs of the county in accounting for garage and shop tools.

**Condemnation Procedure**

The Inventory Deletion Log (see page 2-13 for log) is used for handling condemned items, according to the following procedure:

**Equipment User**

Takes broken or non-usable items to county storekeeper or Equipment Manager.

**County Storekeeper or Equipment Manager**

Examines item to determine status--usable or condemned; if usable, returns item to stock.

If condemned, Equipment Manager contacts the Fleet Management Division RPC to get clearance to delete the tool; there may be outstanding charges not yet posted to the tool(s). Once the Fleet Management Division gives clearance for deletion you can then complete the disposal process for the tool(s).

The Equipment Manager creates an ED notification for approvals to discard.

As well as records the following on condemnation sheet:

1. GSIS Number
2. Description
3. County 4 digit Tool Number

**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)****2.2 GARAGE AND SHOP TOOL INVENTORY SYSTEM (Cont'd)****Organization and Control (Cont'd)**

4. Manufacturer
5. Serial Number
6. Name of individual returning item.

This item is then placed in condemnation storage. Once the ED notification is approved by the District Equipment Manager and a copy of the condemnation sheet is forwarded to the DEM the item is disposed of properly.

It is then the responsibility of the DEM to close the ED notification remove the item from the inventory by installing the item in the "789" functional location and setting the deletion status within the Plant Maintenance system.

District Eq. Mgr. Visits each county as necessary to verify and check condemned items with reference to the ED notifications as well as the deletion sheet. Makes sure that sheets are processed on the District level and condemned items are removed from the garage and shop tool inventory system and placed in "789 functional location after proper disposal. If item is stolen, attach Theft Report (OS-816) to Inventory Deletion Log and attach any additional information in the ED notification as well as closing the notification when all is completed.

The Inventory Deletion Log (see page 2-13) filled out by the County Equipment Manager, contains the information necessary to place a new tool onto the system. The Inventory Addition and Deletion Logs are given to the District Equipment Manager at least once a month. Procedures for adding and deleting tools are located in the Plant Maintenance Equipment Users Manual. As well as on the SAP information site in Outlook.

**PURCHASING OF SHOP TOOLS**

Refer to PennDOT's Purchasing Manual for county garage and shop tool purchases.

County must obtain approval via M7 notification in Plant Maintenance with exception to tools costing \$100 or less; no M7 notification is required for this.

**NOTE:** One M7 notification request for EACH tool request. (Example: to purchase 3 chainsaws, there must be 3 M7 notifications. However, only 1 M7 would be required for a socket set).

To purchase a tool a Standing Work Order must be used. Each District and County has a Standing Work Order that is coded for purchase of tools using Assembly 813-8611-01. This assembly must be used for a purchase of tools.

County	Requests approval on M7 Plant Maintenance screen to purchase tools. Once approval is given by the DEM. County will print the M7 showing approvals forward to a purchaser to have tool ordered. The notification shall also be used in the purchasing areas for proof of approvals to attach to invoices, etc. Once the tool is received the CEM must permanently mark the tool with a four digit tool number then enter the assigned equipment number in the M7 request.
District Office	The District Equipment Manager is responsible to ensure additions and deletions to inventory are made and accurate Garage and Shop Inventory is maintained.

**ANNUAL TOOL INVENTORY PROCEDURE**

This procedure details the action and responsibilities necessary to perform an annual physical inventory of Garage and Shop Tools.

County Eq. Mgr.	Prepares two copies of the tool inventory report and conducts a physical inventory of all Garage and Shop tools in their county. Verifies the accuracy of all information on the inventory report. If accurate, each line item should be initialed by the individual conducting the inventory. If there are differences in the system inventory and the physical inventory, notations are to be made on the printed inventory by May 15.
District Eq. Mgr.	Receives two signed copies of inventory from each county, approves, signs and returns a copy to each county. Un-reconciled differences must be corrected by June 1st of each year.



**INVENTORY DELETION LOG**

COUNTY \_\_\_\_\_

DATE: \_\_\_\_\_

TOOL	DESCRIPTION	TOOL #	SAP EQUIPMENT #	MANUFACTURER SERIAL #	REASON/ATTACHMENTS

Approved by: \_\_\_\_\_

Copies to:     District Equipment Manager  
                    County Equipment Manager

**CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)****2.2 GARAGE AND SHOP TOOL INVENTORY SYSTEM (Cont'd)****REPAIR PROCEDURE FOR SHOP TOOLS**

- A. Create a valid work order in Plant Maintenance; using the Standing Work Order for the District or County for the Repair of Tools using Assembly 813-8611-02. This assembly must be used for any repair of tools.
- B. Under long text section describe tool repair.
- C. Make repairs to tool, using a Purchasing card for part purchases or outside repairs (in accordance with Pub 363, Purchasing Card Manual).
- D. Process the card purchase to the W.O. and close the W.O. just like any other W.O.

The Bureau of Maintenance and Operations, Fleet Management Division, maintains a central warehouse which is responsible for supplying certain items to other Department organizations. These items fall under the general categories of selected equipment parts and accessories, equipment spare assemblies, hand and forestry tools, new and rebuilt engines. Commodities stocked at and available from the Fleet Management Division may be ordered only from the Fleet Management Division. An online Commodity list is available on the Fleet Management Division Website by clicking on: Administration Section/Stockroom/Catalog.

**Purpose:** To identify those commodities stocked at and available from the Fleet Management Division so that organizations will not purchase these items locally.

**Scope:** The scope outlines the method for procuring items from the Fleet Management Division warehouse.

**2.3 Plant Maintenance - Materials**

**Objective:** To enable organizations to acquire items from the Fleet Management Division that has been bulk purchased in order to minimize unit costs.

**Procedure**

1. Plant Maintenance Inventory Master Files are to be maintained for all of the commodities ordered from the Commodity Book on our website for immediate usage or for placement on inventory.

The Plant Maintenance Inventory Master File is the only perpetual inventory record required for the materials listed.

Following are the ordering procedures for receiving items that require a core to be delivered to the Fleet Management Division for an exchanged item.

You must order through SAP R/3. Once the items I ordered and processed through the system, please send your cores and/or justification along with your pony driver on their next trip to pick-up from the Fleet Management Division. All items will be an "Even Exchange" meaning the core you send will be for the replacement you receive.

The items stocked at the Fleet Management Division for exchange are listed below, along with the new material numbers. Each of these items will require a core; however, the backup alarms can be ordered without a core and these items will require written justification to be sent to the Fleet Management Division.

Descriptions	Material Numbers
Pre-Set Oil Nozzles	309019
Backup Alarms – Standard Type	302069
Backup Alarms – Shock Mounted Type	302070

## **CHAPTER 2: EQUIPMENT MANAGEMENT SYSTEMS (Cont'd)**

Automated Ordering (Refer to Plant Maintenance Procedures for ordering inventory items thru SAP R/3)

Special Notes: For instructions to order new and rebuilt engines from the Fleet Management Division, refer to the Fleet Management Division website at the Component Remanufacture link.

SP11 (Non-Inventory Items) must be ordered thru SRM. Please follow procedures in SRM Catalog.

### **2.4 Automated Fuel System (AFS)**

Please refer to the Automated Fuel System User Guide and Policy Manual which is located on the Fleet Management Division's Intranet website under "Manuals" as well as under Automated Fuels link.

### **2.5 ENGINES**

#### **ENGINE REQUESTS**

To insure the county receives the correct engine and configuration there have been changes to the engine request process.

1. The county determines the need for an engine replacement.
2. The CEM will complete the Engine Replacement Request form, which can be found on the BOMO Intranet website in the Component Remanufacture section. Please supply as much information as possible and a detailed reason for replacement. In the contact name section provide the name of the Mechanic Supervisor and/or the Mechanic who diagnosed the Engine Failure.
3. The engine replacement needs to be approved by the CEM and the DEM on the original work order, as in the past.
4. Upon completion E-Mail the form to the names listed on the last line.
5. When the request is received at the Fleet Management Division someone from the E-Mail list will contact the person or persons listed on the request, to verify the diagnosis of the engine failure and to obtain more details about the engine configuration if needed. Examples of questions maybe: How was the engine diagnosed, How did you identify the engine, EUP numbers, Injector numbers, Lowboy Tractor, Pony or Fuel Truck, Special Application, etc.
6. Upon verification of diagnosis and completion of details an Authorization Number will be assigned. An E-Mail will be sent to the requesting CEM, the DEM will also be cc'd. Do not remove engine until you receive an authorization. After authorization is obtained arrangements will be made to ship the engine via Pony Truck.
7. Upon completion of the engine change, return the engine core to the Fleet Management Division as directed in next section.

#### **ENGINE RETURNS**

This process will allow the Fleet Management Division to monitor the fleet engine failures better. It will also aid in getting the correct engine configuration to the county as quickly as possible.

1. The County must return the old engine to the Fleet Management Division within three weeks.
2. The County tags the engine with the equipment number and work order number, then returns the engine to the Fleet Management Division.
3. The County is responsible for having all fluids drained.
4. The engine must be returned to the Fleet Management Division on the original shipping crate as it was when sent out.
5. Engine has to be returned with the same components as when shipped (ex: turbo injection system).

## **CHAPTER 3: EQUIPMENT UTILIZATION**

### **OVERVIEW:**

Continuous utilization of all equipment is improbable and not expected of the Central, District, or County Maintenance Organizations. Efficient utilization of all equipment, however, is expected of the organizations. Many types of equipment, such as snow plows, spreaders, mowers, paint machines, and asphalt distributors are needed only during certain seasons of the year. Even though some of this seasonal equipment is used only within a few months of a year, it must be available when needed. Equipment which can be operated year-round must be utilized to the fullest extent.

The County Maintenance Manager is responsible for the effective and efficient utilization of all maintenance equipment. It is at the County level that proper use of available equipment is reflected in the cost and proficiency of maintenance operations. Advanced planning of all projects is necessary and one of the more important considerations of this planning is the effective use of available equipment. When the County Maintenance Manager is planning for any project, they must determine the amount of equipment of each type that is needed to complete the project and how to distribute the equipment to the best advantage.

It is also the responsibility of the County Maintenance Manager to release equipment as soon as the project for which it was scheduled, is finished. Equipment left on a project, and not being utilized to perform necessary work is not available for other crews within or outside the organization. Naturally, seasonal equipment will be idle during the off season and it may not be feasible to operate regularly-used equipment for a short period of time because of adverse weather and road conditions. Otherwise, there will always be enough work for all available equipment. If a unit of equipment is not needed in one County or District at a certain time, it should be available for utilization in another County or District.

When a County Maintenance Manager maintains equipment they are not utilizing, just to have it in case something happens, they are placing a hardship on someone else who needs it. Moreover, they are contributing directly to the increased cost of maintenance, since the cost of depreciation continues for idle equipment, just as it does for working equipment. It must be paid for in the same way.

### **3.1 APPLICATION FOR CHANGE IN FLEET QUOTA'S**

Should the District/County determine the need for a change to the approved quota of trucks, loaders, digging equipment over 12,000 lbs and crew cabs, the process as outlined below shall be followed to ensure consistency in right sizing our fleet. The District Executive shall submit all pertinent information justifying the change to the Director, Bureau of Maintenance & Operations.

Prior to submitting your application for change, please refer to the current version of the proposed fleet size calculation form, reference the snow lane mile calculation at [Snow Lane Miles, By District Org & SR](#), winter survey based on stockpiles and the original 3 year truck plan. The application for change must be submitted prior to April 1 of each calendar year, so the application can be processed prior to the current Fiscal Year's Fleet Model presentation. Fleet Model Quota compliance will be measured annually through Fleet Model presentation submission.

Notifications of adjustments to Fleet Quota's not predetermined by the above policy, such as Personnel Vehicles, Rollers, Skid Steers, etc., should be submitted to the Director, Bureau of Maintenance & Operations. All adjustment requests must be submitted before April 1 of the current Fiscal Year to be considered during the current Fiscal Year End Fleet Model Presentations.

### **3.2 EQUIPMENT FLEET MODEL**

The Equipment Fleet Model was implemented in 1996 to manage the department owned Equipment fleet. The model sets guidelines for the size, age, distribution and mix of the equipment fleet for each District, by utilizing criteria based on snow lane miles, personnel staffing and number of stockpiles. The model identifies opportunities for cost effective utilization, by establishing minimum use standards for sixteen types of equipment and limits the percentage of a District's budget that can be committed to lease purchases. Guidelines were also established to allow one County organization to rent equipment to another County organization.

This Equipment Fleet Model will be reviewed and updated annually by the Fleet Optimization Task Force.

## **CHAPTER 3: EQUIPMENT UTILIZATION (Cont'd)**

### **3.2 EQUIPMENT FLEET MODEL (cont'd)**

#### **Fleet Optimization Task Force**

The Fleet Optimization Task Force will consist of the eleven (11) District Equipment Managers and one (1) Representative from every District which can be comprised of an HMM, CMM, CEM, or ADE-M, as appointed by the District Executive. The Fleet Optimization Task Force also includes the Fleet Management Division's Chief, Fleet Manager, and the Regional Fleet Advisors.

**A Fleet Management Peer Review Committee** consisting of the following will review the **District Fleet Management Plan**. It is the responsibility of the peer review committee to review and make recommendations for each District's annual business plan presentation.

- Chief, Fleet Management Division
- Fleet Manager, Fleet Management Division
- Assistant District Executive (Maintenance) (1 ea)
- District Equipment Managers (2 ea)

#### **Each year 1 of the 3 District members will be replaced.**

It will be the responsibility of the Peer Review Committee, by July 30, to review each District's fleet management plan. If a plan is not approved by this committee, the District must address, by August 15th, their fleet management plan deficiencies, with the Fleet Management Division Executive Staff.

It is imperative that all equipment issues presented to the Fleet Management Division Executive Staff, be resolved by October 1. Failure to accomplish this will disrupt the capital equipment procurement cycle and possibly delay the delivery of equipment.

It will be the responsibility of the Fleet Management Division to respond, in writing, to each District with the decision of the Peer Review Committee.

It will be the responsibility of the Fleet Optimization Task Force to review the equipment fleet model annually. Recommendations for changes and/or additions will be presented to the District Equipment Managers at the spring DEM meeting for discussion and approval.

**CHAPTER 3: EQUIPMENT UTILIZATION (Cont'd)****3.2 EQUIPMENT FLEET MODEL (cont'd)****Quotas**

Equipment quotas for the equipment types listed below will be based on the previous years quota established at the Districts Fleet Model Presentation. Additions to the quotas must be justified in the District Presentation.

Single Axle Dump Trucks	Three Wheel Roller
Tandem Axle Dump Trucks	10 Ton Static/Vibratory Roller
Tri-Axle Dump Trucks	4-6 Ton Static/Vibratory Roller
Loaders	Rubber Tire Roller
Larger Loader	Belt Loader
Skid Steer Loader	Side Dozer
Graders	Tractor Mower
Backhoes	Boom Arm Mower
Crew cabs	Self Propelled Sweeper
Excavators	Personnel Vehicles
Oil Distributor	Shop Support Vehicles
Chip Spreader	Fuel Truck
Self Propelled Widener	Lube Truck
Motor Paver	Tractor And Lowboy Trailer
Finish Paver	

**Equipment Fleet Mix**

It will be the stated goal of each County organization to maintain the following equipment fleet mix:

Single axle dump truck 50%, Tandem axle / Tri axle dump truck 50%. This 50% Tandem axle fleet is intended to be a minimum goal and it may suit some Districts to exceed this percentage. Wing plows will be mounted on a minimum of 25% of the Tandem axle dump truck fleet. It's encouraged that 100% of the interstate or interstate look alike system be equipped with wing plows.

**NOTE:** District 6-0 is exempt from the truck fleet mix and wing plow requirement.  
District 11-0 is exempt from the wing plow requirement only.

**CHAPTER 3: EQUIPMENT UTILIZATION (Cont'd)****3.2 EQUIPMENT FLEET MODEL (cont'd)****Age Of Equipment**

It will be the stated goal of each District and County organization to maintain the average age of their core equipment fleet at 50% of the expected life as defined on Plant Maintenance or before the life to date hours listed in Plant Maintenance reaches the industry standard usage hours. The core equipment fleet is defined as:

	<b>Expected Life</b>	<b>Industry Usage Hours</b>
Single Axle Dump Trucks	14 Years	14,000 Hours
Tandem Axle Dump Trucks	14 Years	14,000 Hours
Tri-Axle Dump Trucks	14 Years	14,000 Hours
Loaders	17 Years	10,000 Hours
Backhoes	15 Years	10,000 Hours
Crew Cabs	8 Years	N/A

It will be the stated goal of each District and County organization to maintain the age of their support equipment fleet within the expected life window or before the life to date hours listed in Plant Maintenance reaches the industry standard usage hours listed below. The support equipment fleet is defined as:

	<b>Expected Life</b>	<b>Industry Usage Hours</b>
Rollers (Includes Three Wheel, 10 Ton, 4-6 Ton And Rubber Tire)	12-18 Years	9,000 Hours
Excavators (Includes Rubber Tire And Track)	12-18 Years	14,000 Hours
Oil Distributor	12-18 Years	14,000 Hours
Chip Spreader	10-16 Years	6,000 Hours
Widener	12-18 Years	6,000 Hours
Motor Paver	12-18 Years	6,000 Hours
Finish Paver	9-15 Years	6,000 Hours
Belt Loader	9-15 Years	14,000 Hours
Fuel Truck	9-15 Years	10,000 Hours
Graders	12-18 Years	14,000 Hours

**CHAPTER 3: EQUIPMENT UTILIZATION (Cont'd)****3.2 EQUIPMENT FLEET MODEL (cont'd)****Minimum Use Standard**

The following fourteen types of equipment should obtain the Minimum Use Standard listed below:

EQUIPMENT TYPE	HOURS
Trucks	700
Loaders	500
Graders	300
Backhoes	300
Excavators	400
Oil Distributor	250
Widener	200
Finish Paver	200
Three Wheel Roller	200
10 Ton Roller	200
4-7 Ton Roller	200
Rubber Tire Roller	150
Belt Loader	200
Chip Spreaders	150

This minimum use standard will be defined as the minimum acceptable usage that is economically feasible for owning that type of equipment and should not be interpreted as an acceptable level of equipment utilization. Equipment falling below this standard should be rented either from another organization, a congressional rental center or on the open market.

**NOTE:** A 10% penalty of the purchase price will be assessed to the capital equipment budget calculation for each piece of equipment that does not reach the minimum use standard. **Dump trucks, Loaders and Graders will be exempt from the penalty.**

**Minimum use standards will not be waived for any reason for individual pieces of equipment.**

Minimum use standards may be waived for any of the 14 types of equipment in a given fiscal year with approval of the Fleet Optimization Task Force.



**CHAPTER 3: EQUIPMENT UTILIZATION (Cont'd)****3.2 EQUIPMENT FLEET MODEL (cont'd)****Equipment Charge Back System**

In response to District and County requests, a task force was formed under the guidance of the Fleet Management Division to develop a process for one County to “rent” equipment to another County. A major concern was that the owning County bears the burden of purchasing the unit while another County benefits from the use of the unit without a financial commitment. This process was approved by the Deputy Secretary for Highway Administration, and distributed with the fleet model since September 1999.

The rental process is voluntary. There is no requirement for one County to pay another County for the use of that County’s equipment although this is preferable. If two Counties wish to use the process, however, here are the guidelines to follow:

- Counties agree on availability of equipment for rental.
- Counties agree on the price for the equipment rental. It is recommended to start negotiation with rates already established in Plant Maintenance.
- After use, the rental amount is transferred from the renting County to the owning County using the attached process.

The negotiators for this process are the County Maintenance Managers. If a price acceptable to both managers cannot be agreed to, there is no agreement and no rental. The only rate restriction is that both managers must agree.

This process was originally piloted in District 1-0 and has proven to be successful statewide. It also serves as another tool to be used in achieving the equipment utilization goals as identified in the departments’ fleet optimization program.

**Selling Of Surplus Equipment**

It is the recommendation of the Fleet Optimization Task Force that all proceeds a District/County realized from equipment auctions must be spent on equipment.

The Fleet Optimization Task Force also encourages the selling of equipment between organizations. In the event, an acceptable price cannot be agreed upon, the Fleet Management Division should serve as the party to establish the price.

Each District will monitor the County’s cost of maintaining the equipment fleet as the ratio is compiled in the usage versus cost report. It will be each organizations stated goal to improve the usage vs. cost ratio. The following is the suggested improvement rate.

<b>Previous F/Y Ratio</b>	<b>Improvement Rate</b>
.31 To .35	-.01
.36 To .40	-.02
.41 To .45	-.03
.46 To .50	-.04
.51 To .55	-.05
.56 To .60	-.06
.61 To .65	-.07
.66 To .70	-.08
.71 To .75	-.09
.76 To .80	-.10

**CHAPTER 3: EQUIPMENT UTILIZATION (Cont'd)****3.2 EQUIPMENT FLEET MODEL (cont'd)****Cost Of Maintaining Equipment Fleet**

Potential factors affecting the ratio:

Equipment Usage Charges . . . . Organizations must strive to charge equipment usage as outlined in Pub 23.

Material Expenditures . . . . . Organizations should ensure that PM's are done thoroughly, repairs are performed in the most cost effective manner, parts are procured from the lowest cost source and any unused parts are returned for full credit.

Salary Expenditures . . . . . Organizations should ensure that costs charged to the 813 cost function are PM and repair related. Every effort should be made to minimize overtime.

**Fleet Purchases**

Historically, Districts have purchased equipment wisely. The Fleet Optimization Task Force Does not feel the need to dictate equipment purchasing to the Districts. The Fleet Management Division generally offers Districts alternatives if an equipment purchase is questionable. The final purchase decision, however, has remained with the Districts. With the addition of the equipment fleet model and District fleet management plan, equipment purchasing will get the attention it deserves without any additional purchasing restrictions.

Currently, the Districts are responsible for maintaining their highway infrastructure. Central Office does not dictate how that infrastructure is managed. This group does not believe the equipment fleet used to maintain our highway infrastructure should be managed any differently.

At the annual fleet model presentation each District must provide a 5 year, estimated plan for the replacement of the core and support pieces of equipment listed on Page 5 of Chapter 3 of this document.

**3.3 EQUIPMENT UTILIZATION REPORTING REQUIREMENTS**

General equipment utilization reporting requirements are found in the Foreman's Manual (Publication #113). The mileage will be entered in Plant Maintenance on the custom transaction "Y\_DC1\_32000862- PM Update Equipment Readings and CO Posting." Instructions for entry of M-805 into Plant Maintenance can be found on the BOMO Intranet site.

**M-805 Record of Equipment Operation**

This form is required monthly for every personnel vehicle ("G" vehicle – ex: automobile, station wagon, van or four wheel drive personnel) and all pickup trucks utilized as a staff vehicle, i.e. those assignments to County Managers, County Equipment Managers and Assistant County Managers. Instructions for the completion of this form are on the reverse side of the form. The County submits their completed M-805's to the District and Central Office Organizations submits theirs to the Fleet Management Division.

When entering the mileage into Plant Maintenance the HOME and FIELD miles are to be entered separately along with the TOTAL MILES traveled for that month. Also required are the Field Days Used and the Home Days Used along with the Total Days Used. These are mandatory fields along with the coding fields. It is required each M-805 form is input for each month. When entering use the last day of the month the M-805 is for; (i.e. entering June 2010 M-805; the date of 06/30/10 will be used as the entry date). Note: the month of June will be entered against the next fiscal year each year. All M805s are to be entered into SAP-Plant Maintenance by the 10th of each month.

For any reversal of an entry; the measuring document must be reversed and the Finance charges must be reversed. The District or County is responsible for reversing the measuring document in Plant Maintenance. To reverse the CO Document, email the RPC at the Fleet Management Division.

## **CHAPTER 3: EQUIPMENT UTILIZATION (Cont'd)**

### **3.4 DEVELOPMENT OF EQUIPMENT RENTAL RATES**

The Department makes a substantial annual investment in roadway maintenance equipment.

Included in this investment are such items as personnel costs associated with equipment repair and equipment maintenance, fuels, lubricants, antifreeze, repair and replacement parts, tires, batteries, equipment depreciation, major repairs, equipment storage costs, etc. These costs represent the "cost of ownership" for the Department's equipment fleet.

The Department equipment rental rate directly reflects cost of ownership. Of primary concern in fleet management, is the ability to demonstrate or justify the cost of ownership through effective equipment utilization. Failure to maximize the use of available Department equipment increases the cost of ownership, weakens our ability to maintain existing fleet levels and erodes our competitive position with the private sector in the performance of routine maintenance.

The direct relationship of rental rates to the cost of ownership and the role that utilization plays in their determined value, becomes more evident with an understanding of the rental rate development process. These rates are found in Plant Maintenance system.

Department equipment is divided into groups referred to as Equipment Classification Codes (ECC's). Similar equipment is defined and included within each ECC. Equipment costs and usage (hours or miles) are accumulated by equipment number with each ECC for a fiscal year. Total costs for an ECC (referred to as Base Year Costs) are divided by the total usage reported for all equipment within the ECC. This calculation yields the rental rate for the subject ECC.

A detailed description of the components of the Base Year Costs addressed in the rental rate calculation is as follows:

**ELIGIBLE PROGRAM 813 COSTS** - Includes labor, fuels, lubricants, antifreeze, repair and replacement parts, tires, batteries, etc.

Ineligible Costs include such items as labor, material, and equipment expenditures related to the repair and maintenance of hand tools as well as costs associated with engine, hydraulic, electrical and transmission rebuilds and chauffeuring. (See cost function definitions - Publication #113, Maintenance Foreman Manual.) The aforementioned Eligible Costs can be divided into two categories, Direct Costs and Indirect Costs.

1. **DIRECT COSTS** - Costs charged directly to a specific equipment number. These costs include labor and payroll additive for repairs and maintenance as well as repair and maintenance parts, tires, batteries, fuel, motor oil, etc.
2. **INDIRECT COSTS** - Costs which cannot be directly identified with or are too incidental to be identified with particular units of numbered equipment.

These costs include labor and payroll additive for equipment managers and clerical staff assigned to Program 813 as well as lubricants, supplies, etc. These indirect costs are pro-rated and distributed to each Department Equipment Number by dividing total Indirect Costs by the sum of total Direct Costs plus total Depreciation less Major Repairs.

**PROGRAM 822 COSTS** – All costs charged to 822 for repair of garages, ground, buildings, etc.

These costs are distributed in prorate fashion to each equipment number in the same manner as Indirect Costs.

### **RENTAL RATE ADMINISTRATIVE PROCEDURES**

The Department Equipment Rental Rate development process is an annual processing and review of equipment utilization and cost data. The Plant Maintenance System processes the computer records and the Bureau of Maintenance and Operations staff are responsible for post-processing actions.

The Department currently uses all costs coded to building and grounds – 822.

**CHAPTER 3: EQUIPMENT UTILIZATION (Cont'd)****3.4 DEVELOPMENT OF EQUIPMENT RENTAL RATES (Cont'd)**

The Bureau of Office Services/Finance Section will review the new rates for reasonableness. It will then be forward to the Bureau of Maintenance and Operations/ Fleet Management Division for further review. When the rates have been successfully agreed upon the Bureau of Office Service/Finance Section will give IES the authorization to load the rates for the new fiscal year. The Bureau of Maintenance and Operations will also transmit a copy of the new rates to FHWA to include copies of the following reports DE-1, DE-10, DE-11, & DE-12, for their review, as equipment use charges to federal-aid projects are driven by the rates. (New report names Deprecation, Direct Cost, Indirect Cost, Rental Charges & Rental Rate List).

The Fleet Management Division has the ongoing responsibility to update the rate development system with a number of elements:

- Purchase price
- Delivery date
- Major repair depreciation months
- Date removed from inventory (Equipment Disposal)
- Disposal price
- Disposal date

**3.5 TRANSFER OF EQUIPMENT (Loaning or Reassigning to another District/County)**

Transfer procedures are important because before the use of a piece of maintenance equipment may be charged through Plant Maintenance, it must be listed in Plant Maintenance as residing in the County that is charging it. The only exceptions to this rule are County, District and state scheduled equipment.

Each County and District has the responsibility to update equipment location in Plant Maintenance (Reference: Chapter 5 Plant Maintenance Equipment Users Manual).

The technique involved utilized just one transaction in Plant Maintenance.

1. The organization sending the equipment uses an E5 transaction code which in effect says, "I have transferred equipment number xxxxxx to organization xxxx".
2. The organization receiving the equipment uses an E5 transaction code which in effect says, "I have received equipment number xxxxxxxx from organization xxxx".

Only after the E5 transaction has been completed, will the location of the equipment involved be changed in Plant Maintenance.

The abbreviations below are used in the following narrative:

- RE = Requesting Equipment
- RCE = Receiving Equipment
- TD = Transferring District
- TE = Transferring Equipment

**CHAPTER 3: EQUIPMENT UTILIZATION (Cont'd)****3.5 TRANSFER OF EQUIPMENT (Loaning or Reassigning to another District/County) (Cont'd)****A. COUNTY TO COUNTY, DISTRICT TO DISTRICT & COUNTY TO DISTRICT**

This procedure outlines the responsibilities and actions required to transfer maintenance equipment between field units (County, District).

<b>Responsibility</b>	<b>Action</b>
County Mgr./Equipment Mgr. . . . .	Determines that they require a piece of equipment that they do not have.  Telephones the District Equipment Manager and requests that the equipment be transferred to their County.
District Equipment Mgr. . . . .	Receives phone call from County Manager/Equipment Manager requesting that equipment be transferred to their County. Surveys other Counties for requested vehicle and approves or disapproves request. Instructs a County Manager or Equipment Manager in their jurisdiction to transfer equipment to requesting County.  - OR -  Requests from the Assistant District Executive for Maintenance that the equipment be transferred from another engineering District to the requesting County.
Asst. Dist. Engr., Maint. (RE) . . . . .	Works with the other Assistant District Executives to determine if equipment is available from another District.
Asst. Dist. Engr., Maint. (TD) . . . . .	Instructs the County Manager or Equipment Manager to transfer equipment.
County Mgr./Equip. Mgr. (TE) . . . . .	Enters an E5 notification in Plant Maintenance
County Mgr./Equip.Mgr (RE) . . . . .	Receives email from transferring organization notifying them of transfer. Enters Plant Maintenance and approves notification for transfer.
Ind. Picking Up/Delivering Equip. . . . .	Delivers the equipment to receiving Equipment Manager
Equipment Manager (TE) . . . . .	Enters Plant Maintenance and executes "Y_DC1_32000860 Custom Equipment Transfer"

**NOTE:** District to District Transfer - both District Equipment Managers involved must inspect and approve condition before transfer is made. If this is not done, any deficiencies needing repair upon receipt of unit will be repaired by receiving organization. To keep quotas in line, any District to District transfer must be approved by the Operations Section (Fleet Management Division) before transfer is completed.

**CHAPTER 3: EQUIPMENT UTILIZATION (Cont'd)****3.5 TRANSFER OF EQUIPMENT (Loaning or Reassigning to another District/County) (Cont'd)****B. TRANSFER OF EQUIP. BETWEEN EQUIP. DIV. AND CENTRAL OFFICE ORGS.**

This procedure outlines the responsibilities and actions required to transfer equipment from the Fleet Management Division to a Central Office organizational unit.

<b>Responsibility</b>	<b>Action</b>
Director, Bureau-Maint. & Oper. . . . .	Receives request for maintenance equipment from a Central Office Organization Unit. Reviews the request.  Sends approved requests to the Fleet Management Division.
Fleet Management Division . . . . .	Receives the approved request for equipment.  Notifies requesting Bureau to pick up the equipment.
Equipment Manager (Fleet Management Division) . . . . .	Enters an E5 notification to indicate sending of vehicle and to indicate receipt of vehicle.  Enters Plant Maintenance and executes "Y_DC1_32000860 Custom Equipment Transfer"

When vehicles are returned to the Fleet Management Division, the same procedure is followed.

**3.6 SAFETY****EQUIPMENT DEADLINE DEFICIENCIES**

Any unit of equipment that has a defect or deficiency that falls into one of the following categories must be "DEADLINED" (removed from service) until the defect or deficiency has been repaired. The categories are:

- It is determined to be unsafe to operate any unit or tow a unit of towed equipment.
- It is determined to be illegal to operate any unit or tow a unit of towed equipment.
- Operation may result in additional damage to the unit.

The responsibility to determine whether a unit should be dead lined rests with the Equipment Manager or a designee

**CIRCLE OF SAFETY**

Many safety conscious organizations have experienced a significant decrease in vehicle accidents since instituting a procedure for operators called, "The Circle of Safety."

Simple in execution, this procedure has virtually eliminated backing accidents and reduced other categories.

"The Circle of Safety" requires that prior to entering the operator's station (cab), the operator of a vehicle must walk completely around the vehicle looking under the wheels, as well as in the front and rear of the vehicle, and observing nearby conditions that pose potential hazards. This procedure must be completed every time the operator enters a unit.

## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM**

### **4.1 PM POLICY**

PM is the care, servicing and periodic inspection for the purpose of maintaining equipment in satisfactory operating condition by providing for systematic inspections, detection and correction of deficiencies, either before they occur or before they develop into major defects which require costly repair. In other words, PM is the combination of all activities by the using organizations to keep equipment in the best possible condition from the moment of purchase--to stop failures before they start.

PM is the calculated inspection of equipment to detect and correct minor deficiencies and shortcomings before major and costly breakdowns occur. Deficiencies are malfunctions that result in an unsafe condition to personnel or serious damage to the equipment. Items such as loose battery connections, a missing or broken rear-view mirror or a missing or broken wiper blade would be a deficiency. Shortcomings are defects or malfunctions that must be corrected to make the vehicle more serviceable. For example, wheel hub leaking, or a broken speedometer would be a shortcoming.

**Purpose:** To ensure maximum reliability and uninterrupted service and to promote efficient operation by prescribing uniform statewide policies and procedures for the supervision, management, and maintenance of department equipment.

**Scope:** The scope encompasses the designation of responsibilities for supervision of equipment maintenance operations and prescribes guidelines for operating, maintaining, training, inspecting, and reporting equipment readiness.

**Objective:** To ensure maximum equipment operational readiness and to assist personnel engaged in equipment maintenance supervision in the early detection and correction of potential or actual equipment failure.

### **PM RESPONSIBILITIES:**

1. DIVISION CHIEF, FLEET MANAGEMENT DIVISION, BUREAU OF MAINTENANCE AND OPERATIONS
  - Responsible for the PM Program at the Fleet Management Division.
  - Responsible for the implementation of policies for the Statewide Equipment PM Program through their staff.
2. HIGHWAY EQUIPMENT MANAGER FLEET MANAGEMENT
  - Responsible for the uniform direction of the Equipment PM Program.
  - Give active support to the District Equipment Manager in obtaining compliance with Department policies and procedures.
  - Administer the Department's Equipment Maintenance Quality Assurance Program.
3. DISTRICT EXECUTIVE
  - Responsible to direct the overall implementation of the policies for the District's Equipment PM Program through their staff.
  - Make random checks of garage activity when visiting a Maintenance District Building.
4. ASSISTANT DISTRICT EXECUTIVE FOR MAINTENANCE
  - Develop the District's Equipment PM Program in accordance with Chapter 4 of the Equipment Manager's Manual. This is to include proper planning, scheduling, implementation, and enforcement of Equipment Maintenance.
  - Direct the District Equipment Manager in implementing the Equipment PM Program.



## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.1 PM POLICY (Cont'd)**

#### **PM RESPONSIBILITIES: (Cont'd)**

#### **4. ASSISTANT DISTRICT EXECUTIVE FOR MAINTENANCE (Cont'd)**

- Give active support to the District Equipment Manager in obtaining compliance with Department policies and procedures.
- Perform spot checks of County Garages when making monthly (or more often) visits to each Maintenance Organization.
- Ensure that the County Maintenance Manager conducts weekly staff meetings for the purpose of work and equipment scheduling, based on the established PM schedule.

#### **5. DISTRICT EQUIPMENT MANAGER**

- Responsible for the actual implementation and operation of the District's Equipment Preventive Maintenance Program.
- Conduct spot checks in each Maintenance Organization to determine how well the PM policy is being adhered to. Assure the Equipment Maintenance Quality Assurance is carried out.
- Advise the County Maintenance Manager to correct any violation of the Department Preventive Maintenance Procedure. All violations are to be reported to the Assistant District Executive for Maintenance.

#### **6. COUNTY MAINTENANCE MANAGER-The County Maintenance Manager is the key individual in the management team and as such will support the Equipment PM Program and will ensure its success and high productivity through fewer field equipment breakdowns.**

- Responsible for directing the PM Program in this individual's respective Maintenance District.
- Place the highest priority on the Equipment PM Program.
- Responsible for the proper use and maintenance of all Department equipment assigned to the Maintenance District, including Engineering District and Central Office equipment working in the County.
- Conduct a weekly staff meeting with key management personnel (including the County Equipment Manager) for the purpose of scheduling the next week's work activities based on the established PM Schedule.
- Conduct spot checks to assure that the PM Program is being followed.
- Ensure that all the personnel involved with PM in the Maintenance District (including operators) are made aware of their responsibilities.

#### **7. ASSISTANT MAINTENANCE MANAGER**

- Responsible for scheduling the work assignments for foreman in order that the established PM Schedule will cause little or no interruption to the foremen's operations.
- Direct foremen to strictly adhere to the PM Schedule and Procedures.
- Enforce the PM Procedures by periodically spot checking with the Field Foremen and the County Equipment Manager in order to correct any conflicts.
- Replace equipment from high priority projects which is undergoing PM with available equipment or equipment from low priority projects.



## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.1 PM POLICY (Cont'd)**

#### **PM RESPONSIBILITIES: (Cont'd)**

#### **8. FIELD FOREMAN**

- Ensure that all equipment under supervision receives its PM on schedule and daily maintenance by the Equipment Operators.
- Review completed M-614's at the end of each day to ensure the form has been completed in its entirety. Foreman must print and sign their name on each M-614.
- Ensure that Form M-614 is prepared for equipment under supervision which has no assigned operator, i.e., stockpile area.
- Ensure that Form M-614 is forwarded daily to the County Assistant.
- Notify County Equipment Manager of any major mechanical problems or safety hazards, immediately.
- Ensure equipment is cleaned and washed before PM is performed.

#### **9. COUNTY EQUIPMENT MANAGER**

- Responsible for the direct control of the PM Program which is accomplished by reviewing:
  - a. Completed Form M-614
  - b. PM Scheduler Report
  - c. Completed Form M-824.
  - d. PM's flagged for Fuel Usage Report
- Ensure the proper preparation of:
  - a. Work order
  - b. The top of Form M-824
- Ensure that the PM filing system is properly maintained.
- Inform the Maintenance Manager and Assistant Maintenance Manager of the PM schedule.
- Attend weekly staff meetings in order to ensure compatible scheduling of work and equipment assignments.
- Ensure (with the Mechanic Supervisor/Automotive Equipment Foreman) (a) that all equipment maintenance work is performed in the proper manner, (b) that mechanics perform all the PM checks, and (c) that all paper work is completed.
- Responsible for notifying the Maintenance Manager of any problems with equipment maintenance which may have been caused by the failure of operators, mechanics, foremen, or the Assistant Managers to follow the Department's Equipment PM policies and procedures.
- County Equipment Manager has authority to deadline equipment if it is not presented for PM within Department Policy.
- Ensure all mechanic payrolls containing PM information are entered into Plant Maintenance data entry subsystem no later than the workday following the actual PM
- Shall attend the close-out meeting to be held immediately following the completion of the county QA review.

## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.1 PM POLICY (Cont'd)**

#### **PM RESPONSIBILITIES: (Cont'd)**

#### **9. COUNTY EQUIPMENT MANAGER (Cont'd)**

- Establish and maintain a library of the following publications:
  - a. Technical Bulletins - Defines specific problems and solutions to Department equipment.
  - b. Information Bulletins – Provides specific information about various issues maintenance organizations encounter concerning Department radio system and provides a means of communication to share this information.
  - c. Warranty Bulletins – Covers warranty repair information provided by manufacturing to Department equipment. This will outline the repair procedure, whether the repair will be done in house or sent out to a vendor, any recall information and describe process maintenance organizations must follow to receive reimbursement. All repairs will use an “A-1” notification in the Plant Maintenance system and create a work order to track the money spent by the maintenance organization.
  - d. Parts and Service Manual - Used by the mechanics, these publications include such information as line setting tickets and detailed component repair procedures.
  - e. Lubrication Bulletins - Provides lubricant and filter requirements and change intervals. Where there is no Lubrication Bulletin available for certain equipment, the engine oil drain interval is to be completed as directed on Form M-824. The Operator's Service Manual is also recommended as a reference for lubrication requirements not covered in the Lubrication Bulletins.
  - f. Radio Bulletins - Provides specific information about various issues maintenance organizations encounter concerning Department radio system and provides a means of communication to share this information.
  - g. Strike Off Letters

#### **10. MECHANIC SUPERVISOR/AUTOMOTIVE EQUIPMENT FOREMAN**

- Responsible for the proper preparation of:
  - a. Work Order
  - b. The top of form M-824
- Schedule the mechanics involved with PM.
- Ensure that the PM work is properly performed through direct supervision, training and quality assurance checks; check and sign all related paperwork (e.g., M-824's, payrolls, etc.)
- Assist the mechanics with their mechanical knowledge and experience.

#### **11. MECHANIC**

- Adhere to the PM procedure in detail.
- Complete Form M-824.
- Responsible for performing the PM.
- Responsible for using Department equipment parts or supplies to repair and maintain State-owned equipment only, as required.
- Will sign off and date M-614 after work has been completed.

## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.1 PM POLICY (Cont'd)**

#### **PM RESPONSIBILITIES: (Cont'd)**

#### **12. EQUIPMENT OPERATOR**

- Ensure that their equipment is properly maintained (all operators of State Personnel vehicles must read the upper left windshield sticker and notify the appropriate garage personnel that service is due.
- Perform daily checks (or greasing where necessary) on equipment that is operated and record on M-614.
- Notify Field Foreman of any major mechanical problems or safety hazards with the operated equipment.
- Perform minor repairs and adjustments as approved by the Equipment Manager, Mechanic Supervisor or Automotive Equipment Foreman.
- Responsible if an assigned piece of equipment is found to be in need of repair, lubrication, etc. If lack of repairs or lubrication is found on a piece of equipment that has not been used for a period of time, the operator of that equipment will be held responsible if M-614 was not submitted on the last day the equipment was operated and maintenance duties were not performed.
- Responsible for ensuring that equipment is well maintained. Tools and service facilities are available to perform minor repairs and complete lubrication service. Daily maintenance and the No. 1 and No. 2 Inspection/Service schedule must be adhered to.
- Ensure equipment is cleaned and washed before PM is performed.
- The Equipment Operator shall not assist the mechanic in performing a PM. Several alternatives exist to this procedure when equipment is in for preventive maintenance:
  - a. Have the operator assigned to operating other equipment or other duties in the field or garage.
  - b. Assign the operator to other productive work in the county office. Exception would be specialized equipment as designated by the DEM.

## **PREVENTIVE MAINTENANCE PLAN**

Each organization must develop a preventive maintenance plan following Department Policy.

Each preventive maintenance plan must address the following:

- All equipment classifications included in the "Equipment Requiring PM Inspections" section of this chapter.
- The PM interval for each equipment classification (fuel), that does not exceed the maximum interval listed in the "Equipment Requiring PM Inspections" section.
- The oil change interval for each equipment classification, not to exceed the maximum limits established by this manual.
- The number of #2 PM's for each equipment classification.

The PM schedule is setup in Plant Maintenance. There are four types of maintenance items that are generated by the system. They are:

1. #2 PM Inspection & Routine Service (8112-01)
2. Fuel Consumption #1 PM (8111-01)
3. #3 DPF Maintenance (8315-01) only on certain pieces of equipment
4. #4 Idle Download (8314-11) only on certain pieces of equipment. This should be in conjunction with other PMs or service for that piece of equipment.

Organizations must attach the maintenance item to a maintenance plan for a #2PM, #3 DPF Inspection and a #4 Idle Download based on the frequency the equipment is required to be inspected as outlined later in this section.

**CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)****4.1 PM POLICY (Cont'd)****PLANT MAINTENANCE (PM SCHEDULER)**

A maintenance plan will be attached to the Fuel Consumption #1 PM based on its Fuel Consumption Standard by the Fleet Management Division and a maintenance plan will be attached to the #3 DPF Maintenance based on the 4 year cycle.

**HIGH FUEL PM's**

Plant Maintenance will generate a notification for a piece of equipment when it meets the lower end of its Fuel Consumption Standard as outlined in Section 4.9. Organizations will have till the upper end of the gallonage window to perform this Fuel Consumption #1 PM.

**FUEL BUCKET DUMP (813811101 CHARGES)**

The only way to dump the fuel bucket is to charge to an 813811101 assembly only. If an organization is performing a #2 PM Inspection & Routine Service and wants to change oil before the equipment reaches its Fuel Consumption #1 PM Standard, they must create a separate notification and work order using this assembly.

**Overdue PM's**

Plant Maintenance schedules #1 Fuel Consumption PM based on fuel consumption.

Plant Maintenance schedules a #2 PM inspection notification forty-five (45) calendar days before its required end date. All #2 PM inspections will have a required start and end date on the twenty-eight (28th) of the month the equipment is scheduled. Organizations may perform this #2 PM Inspection within that 45 day window but will not exceed the required end date of the 28th. **NOTE:** This only applies to the #2 PM.

**ECC Category****A Trucks**

All Dump Trucks 11,001 and Over . . . . .	Fuel Consumption/Annual or Bi-Annual #2 (depending on GVW), #3 DPF, #4 Idle Download (not part of PM Program)
All Other Trucks and Crew Cabs . . . . .	Fuel Consumption/Annual or Bi Annual #2 (depending on GVW)

**B Winter Control Equipment**

Snow Blower . . . . .	After every storm
-----------------------	-------------------

**C Road Surface Equipment**

Asphalt Heaters . . . . .	6 Month (Bi Annual #2)
Asphalt Kettles (Motorized) . . . . .	6 Month (Bi Annual #2)
Compressors . . . . .	6 Month (Bi Annual #2)
Pavers – Self-Propelled . . . . .	Fuel Consumption/ Annual #2
Roller . . . . .	Fuel Consumption/ Annual #2
Roller - Walk Behind. . . . .	6 Month (Bi Annual #2)
Stone Chippers - Self-Propelled. . . . .	Fuel Consumption/ Annual #2
Tack Coat Machine. . . . .	6 Month (Bi Annual #2)
Widener – Attachment . . . . .	6 Month (Bi Annual #2)
Widener – Self-Propelled . . . . .	Fuel Consumption/ Annual #2

**CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)****4.1 PM POLICY (Cont'd)****EQUIPMENT REQUIRING PM INSPECTIONS (Cont'd)****ECC    Category (Cont'd)****D    Vegetation Control Equipment**

Small Tractor Mower (Cub Cadet, etc...) . . . . .	6 Month (Bi Annual #2)
Tractor Mower . . . . .	Fuel Consumption/ Annual #2
Wood Chipper . . . . .	Fuel Consumption/ Annual #2

**E    Earth Moving Equipment**

Excavator . . . . .	Fuel Consumption/ Annual #2
Grader . . . . .	Fuel Consumption/ Annual #2
Loader . . . . .	Fuel Consumption/ Annual #2
Tractor - Backhoe . . . . .	Fuel Consumption/ Annual #2
Tractor - Maintainer . . . . .	Fuel Consumption/ Annual #2
Belt Loaders . . . . .	Fuel Consumption/ Annual #2

**F    Traffic Service Equipment**

Cleaner - Pipe Flusher . . . . .	6 Month (Bi Annual #2)
Cleaner - Water Blaster . . . . .	6 Month (Bi Annual #2)
Light Board - Arrow . . . . .	6 Month (Bi Annual #2)
Light Board - Message . . . . .	6 Month (Bi Annual #2)
Light - Flood . . . . .	6 Month (Bi Annual #2)
Paint Machine - Truck Mounted . . . . .	Fuel Consumption / Annual #2
Paint Machine - Walk Behind . . . . .	6 Month (Bi Annual #2)
Street Sweeper - Self-Propelled . . . . .	Fuel Consumption / Annual #2

**G    Personnel Vehicles (11,000 GVW or Less, Gasoline or Diesel)**

Sedan . . . . .	7,000 Miles/ Annual #2
Station Wagon . . . . .	7,000 Miles/ Annual #2
Utility Vehicles (Jeep, Blazer, etc.) . . . . .	7,000 Miles/ Annual #2
Van . . . . .	7,000 Miles/ Annual #2
Pickup Truck . . . . .	7,000 Miles/ Annual #2

**M    Other Controlled Equipment**

Concrete Saw . . . . .	6 Month (Bi Annual #2)
Forklift . . . . .	6 Month (Bi Annual #2)
Trailer - Except Lowboy . . . . .	6 Month (Bi Annual #2)
Trailer – Lowboy . . . . .	With Tractor
Welding Machines (gas or diesel powered) . . . . .	6 Month (Bi Annual #2)

**CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)****4.1 PM POLICY (Cont'd)****PM INSPECTION INTERVAL FOR ALL DUMP TRUCKS**

The PM inspection interval for all DUMP TRUCKS may not exceed fuel consumption standard. Units that reach their fuel consumption standard shall have a #1 PM inspection performed before the unit exceeds the upper limit of the fuel consumption standard listed for dump trucks in Section 4.9 in this chapter of the manual. One #2 PM inspection should match the month that the Pa. State safety inspection is due.

**PM INSPECTION INTERVALS FOR EQUIPMENT PM'd BY FUEL CONSUMPTION**

One (1) #2 PM inspection shall be performed yearly to coincide with PA State Vehicle inspection, if required. For equipment that required semi-annual PA State Vehicle Inspection, two (2) #2 PM inspections shall be scheduled per year. #1 PM inspections shall be scheduled when the unit reaches the lower limit of the fuel consumption standard listed in Section 4.9 in this chapter of the manual. The PM inspection shall be performed before the unit exceeds the upper limit of the fuel consumption standard. Engine oil will be changed at each fuel consumption PM inspection.

**PM INSPECTION FOR EQUIPMENT WITH A ONE (1) TO SIX (6) MONTH PM INTERVAL**

One (1) #2 PM inspection shall be performed yearly to coincide with PA State Vehicle Inspection, if required. One (1) #1 PM inspection will be performed at an interval not to exceed six (6) months from the #2 inspection. The #1 notification will need to be self generated as Plant Maintenance will not do this. (a Bi Annual #2 plan is suggested for these pieces so that a notification is system generated)

**PM INSPECTION INTERVALS FOR PERSONNEL VEHICLES 11,000 GVW OR LESS**

One (1) #2 PM inspection shall be performed yearly to coincide with the PA State Vehicle Inspection. Additional #1 PM inspections shall be performed at an interval not to exceed 7,000 miles. The #1 notification will need to be self generated. Fuel will not be tracked for preventive purposes. Engine oil will be changed at each #1 PM inspection.

Inspection procedures for personnel vehicles 11,000 GVW and less are listed below. This can be a paper less PM;(also called a 12 and Go) therefore, a copy of this section should be given to all PM mechanics to familiarize the policy to them.

**PM #1 = 12 & GO**

Lubrication . . . . . Refer to manufacturer's recommendation

Change Oil and Filter . . . . . Each #1 PM

Inspect Undercarriage . . . . . Suspension, steering components, drive train, CV joints, U-joints, body mounts, exhaust, frames, cross members, fluid leaks, emergency brake cables, etc.

Check Brake Operation . . . . . Service and parking brake

Check Lights and Horn. . . . . Include gauges, defroster, heater, seat belts, indicator lights, fire extinguisher (if equipped), door latches and locks operation, window regulators, insurance cards and registration.

Check Tires . . . . . Tread depth, pressures, excessive wear pattern, matching type and size, overall condition.

Check Belts and Hoses . . . . . Idler pulley, belt tensioner, water pump, electric fan or fan clutch.

Check/Add Fluid Levels . . . . . Coolant, engine, steering, windshield washer, transmission, gear box, hydraulic and wheel hubs. Refer to Department policy for fluid change intervals.

## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.1 PM POLICY (Cont'd)**

Check Battery and Alternator      Cleanliness, acid level, connections and mounting.

**NOTE:** Load test at #2 PM.

Vacuum Interior

### **PM #2**

All of the above plus grey area on M-824.....also for PA State Inspection

This PM procedure can also be paper less, except for the windshield sticker and the mechanics payroll.

### **NEXT PM DUE WINDSHIELD STICKER**

This sticker is to be attached to the upper left corner of the windshield on Department personnel vehicles 11,000 GVW or less to indicate when the next PM is due.

The sticker should reflect the date of the next scheduled PM and the mileage of the next engine oil change.

Windshield stickers may be obtained through the Storeroom of the Fleet Management Division by calling (717) 787-3959.

### **FLUID CHANGE INTERVALS**

Components with synthetic lubricants . . . . . 60 months

Components without synthetic lubricants. . . . . 12 months

Automatic transmissions . . . . . 36 months or 50,000 miles whichever comes first.

### **4.2 PREVENTIVE MAINTENANCE INSPECTION PROCEDURES**

Inspection procedures have been developed utilizing the M-824 form as the guideline for mechanics performing PM's on: (1) Trucks 17,000 GVWR and up, (2) Loaders and Graders, (3) Trucks 11,001 to 16,999 GVW, (4) All Crew Cabs or (5) Compaction Equipment. Mechanics should perform the PM as it is taught in the MECHTECH Preventive Maintenance Course. This is only an inspection; therefore no repairs are to be made during the PM process. Repairs are to be scheduled, if major, or performed at the end of the PM process, if minor. Each repair is assigned a separate work order and assembly. Repairs are not to be performed during the preventive maintenance inspection.

The engine oil change is the only item that will be done in conjunction with a PM (#1 only).

Perform state inspections of vehicle in conjunction with the #2 PM.

### **4.3 NEW EQUIPMENT PM'S**

Assembly number, 813-8112-02 shall be used on the initial #2 inspection to Inspect New Vehicles prior to being put in service at the County and District, a form M-824 should be completed and kept in the equipment history file. This assembly has a reduced time standard of 1.5 hours and will be used for inspection labor only. Repairs, adjustments discovered during the initial Inspection must be submitted for Warranty through an Authorized Dealer or through In-House programs coordinated by the Fleet Management Division. Additional New Vehicle preparation costs should be applied to Assembly 8116-01 when installing required equipment for field operations. Assemblies 8112-02 and 8116-01 will be excluded from the Warranty Evaluation Report generated on a monthly basis.



## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.4 SEASONAL EQUIPMENT PROCEDURES (winter or summer)**

At the end of the operating season.

The following recommendations support the preceding procedure:

1. The beginning of the seasonal repair will be determined at the District level.
2. All equipment must be serviced and prepared for storage. Spreaders must be thoroughly cleaned by the operators of all winter materials at the end of the operating season and inspected by the Mechanic Supervisor.
3. All seats, accessories, etc. subject to weather damage shall be removed, tagged and stored, or covered.
4. Vertical exhaust pipes shall have a secured cap.
5. All exposed instruments and the engine compartment shall be securely covered with plastic or tarps.
6. All plow moldboard facings shall be painted at the end of the operating season. All hydraulic connection shall be properly capped and protected.
7. Follow all recommended procedures as listed in the owner's manual.
8. This procedure should apply to both winter and summer equipment.

### **4.5 PREVENTIVE MAINTENANCE - QUALITY ASSURANCE**

**Policy:** Each County Maintenance Facility shall have at least two PM/QA's completed each fiscal year, one by the Fleet Management Division and one by the District Equipment Manager.

**Purpose:** To evaluate the quality of the PM Program in each County.

**Objective:** To identify where policy and procedures are not being followed and bring to the attention of the District Office, County Maintenance Manager and Equipment Managers, any area where improvement and applicable training is needed. (The QA form will be used for this evaluation.)

**Criteria:** The QA form will be updated annually by a task force with members from Central Office and the Districts.

For a current copy of the QA form contact the Fleet Management Section, Fleet Management Division at (717) 787-2790.

### **4.6 REQUIREMENTS**

#### **PM FILE**

The PM File will contain Form M-614 and M-824, where applicable. The files will be kept in numerical order by equipment number.

Form M-824 is retained for seven (7) years.

Form M-614 is retained for three (3) months past the date of inspection. Form M-614 for the most current month should be kept in front of the folder and the past two months in the rear. (Three month requirement is due to Intrastate Motor Carrier Safety requirement.)

The Preventive Maintenance Schedule is automated and resides on the Plant Maintenance System.

All equipment that is required to be PM'd must have the schedule input on the Plant Maintenance System by using the IP17 transaction.



## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.7 PREVENTIVE MAINTENANCE FORMS**

#### **FORM M-614 - OPERATOR DAILY REPORT FOR MOBILE EQUIPMENT**

Form M-614 provides a list of checks which must be performed before, during and after the operation of each piece of Department mobile equipment.

It also provides the very important initial and daily input of equipment deficiencies into the PM program and as such it is necessary to have the M-614 completed in its entirety. The operator must check each block in the Deadlined Section that apply to the equipment they are operating. If an operator finds an equipment deficiency during the pre-trip or post-trip a check must be made next to the deficiency and a comment with the number of the equipment deficiency in the Operators Comments.

As per Federal Regulation 396.11 all operators must print and sign their name on the completed M-614 for the equipment they operated. All M-614's must be turned in to their Foreman at the end of their work shift.

Foreman are required to collect all M-614's for all equipment operated daily, review for accuracy, and print and sign their name on the M-614 before turning them in to the garage.

Operators of all trucks and mobile equipment (except personnel vehicles) will prepare this form daily, inspecting all appropriate items listed. Operators are responsible and liable for all equipment damage caused by neglect or failure to perform the daily maintenance on their equipment. This includes all operators of personnel vehicles.

This form will be prepared daily by each operator of a piece of equipment to provide before, during and after operation checks on their equipment. Equipment will not be moved prior to the completion of the checks and the correction of any equipment deficiencies. All equipment deficiencies noted on Form M-614 will be entered into PLANT MAINTENANCE on IW25/IW21 screen and completed on the next PM day unless it is deemed necessary to complete work immediately in order to provide safe operating equipment.

The law requires that the current day's and previous day's M-614 be carried in all vehicles licensed for 26,001 lb. GVWR and above. The completion of M-614 for crew cabs is at the discretion of the ADE - Maintenance.

#### **FORM 12 & GO**

Personnel vehicle operators will complete the reverse side of the 12 & GO card and hand-in to the garage personnel at time of PM service. Repairs required at times other than when PM service is performed should be reported to the appropriate garage personnel.

#### **FORM M-824, EQUIPMENT PREVENTIVE MAINTENANCE INSPECTION RECORD**

The form provides a check list for what must be inspected during the No. 1 PM Inspection and the No. 2 Inspection. It also provides a check on the driver/operator's preventive maintenance.

The County Equipment Manager or Mechanic Supervisor will complete the top of the first page on the day PM is scheduled and attach a work order. The mechanic will complete the form during the Inspection/Service and follow any other instructions listed on the work order. Any deficiencies found must be written up in Remarks Section of the form.

Upon completion the Mechanic will sign in the designated space. The form shall immediately be returned to the County Equipment Manager and/or Mechanic Supervisor/Automotive Equipment Foreman, who will check for those items marked deficient and assign necessary repairs.

Every effort should be made to complete an inspection within the day scheduled, since the crew regularly assigned to that equipment will require and expect the equipment to be returned the following day. All needed repairs should be made at the conclusion of the inspection including deficiencies reported by operators on M-614 that did not require immediate attention. Do not make any repairs until the PM is completed. Repairs should be scheduled as soon as possible.

## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.8 CONTRACTED PREVENTIVE MAINTENANCE**

Due to a backlog of work in county garages, the #2 PM may be contracted to outside vendors.

If this assistance is needed, the County Equipment Manager must advertise and award this work on a Service Purchase Contract.

The frequency and number of inspections must be spelled out on the Service Purchase Contract.

**NOTE:** In cases of extreme hardship or because of unusual circumstances permission may be granted by the Fleet Management Division to contract for outside vendor to perform the #1 PM. The following guidelines will apply:

- Request must be in writing and must include justification for use of outside vendor(s).
- Vendor(s) must use Form M-824 to perform PM. Form must be filled out completely, including any problems found, which must be listed in "Remarks" section.
- Vendor's Mechanic or Shop Foreman must sign form, as must County Equipment Manager or Mechanic Supervisor.
- At least one Quality Assurance check must be performed monthly by either District or County equipment management staff to verify PM quality. A copy of each Quality Assurance check must be sent to the Fleet Management Division.

### **4.9 OILS AND LUBRICANTS MAINTENANCE POLICY**

#### **OIL DRAIN POLICY**

The following is the policy on oil drains for the Department's motorized fleet.

Oil and lubricant maintenance is critical to the fleet operations. Therefore, it is imperative that the program be uniformly applied and enforced by each maintenance District.

#### **All New Equipment:**

All new equipment will be purchased with synthetic lube where possible except engine oil.

All new equipment received with GL-1 or GL-5 gear lube should be drained and refilled with synthetic gear lube at first PM.

Fill plugs should be painted red to indicate component is filled with synthetic lube.

The change interval for components with synthetic gear lube ONLY will be five (5) years. All other fluid change intervals will remain the same.

Fluid changes at the first PM for new equipment is no longer required, except for engine oil and those components being converted to synthetic gear lube.

#### **EQUIPMENT FLUID CHANGES**

##### **Engine Oil and Filter Change Intervals**

These intervals are intended to protect the department's equipment fleet during normal operations. The "Window" built into each standard is intended to allow for emergency or unusual circumstances which may make it impossible to change the oil and filters at the lower hours or fuel standard, whichever applies. Any units operated in standing or flowing water should have all driveline components drained and refilled, all bearings repacked, and all lube joints greased immediately after immersion.

**CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)****Fuel Consumption Standard****TRUCKS 11,001 TO 17,000 GVW**

Gasoline Powered . . . . .	240 – 480 Gallons
Diesel Powered . . . . .	450 – 900 Gallons
Crew Cab . . . . .	350 – 700 Gallons

**TRUCKS OVER 17,000 GVW**

Trucks Equipped with MaxxForce DT engines . . . . .	1500 - 1900 Gallons
All other Single Axle Dump Truck . . . . .	650 - 1300 Gallons
Trucks Equipped with MaxxForce 13 engines . . . . .	3300 - 3700 Gallons
Trucks Equipped with Detroit DD13 . . . . .	3300-3700 Gallons
Trucks Equipped with Mack MP7, MP8 engines. . . . .	2000 - 2400 Gallons
Trucks Equipped with Mack ASET engines. . . . .	1500 - 1900 Gallons
All other Gasoline or Diesel Powered Trucks (except Single Axle Dump Truck) . . . . .	850 - 1700 Gallons

**OFF-HIGHWAY/CONSTRUCTION EQUIPMENT**

Sweeper. . . . .	250 - 500 Gallons
Loader . . . . .	1100 - 1400 Gallons
Backhoe. . . . .	700 - 1000 Gallons
Excavator. . . . .	800 - 1100 Gallons
Gradalls . . . . .	1600 - 1900 Gallons
Oil Distributor . . . . .	650 - 1300 Gallons
All Other Equipment . . . . .	300 - 600 Gallons

**ALL OTHER COMPONENTS (Except personnel vehicles 11,000 lbs. or less)**

Components with Synthetic Lube . . . . .	60 months
Components without Synthetic Lube. . . . .	12 months
Automatic Transmissions . . . . .	12 months, change filters
Hydraulic Systems . . . . .	24 months, change filters 12 months (exception - load sense hydraulic system, 6 months)
Personnel Vehicles (11,000 lbs or less) . . . . .	7000 miles

**OIL ANALYSIS POLICY**

Although the Department does not have an oil analysis program, for those occasions when oil analysis is necessary it is recommended that the oil samples be sent to the testing laboratories recommended by the original equipment manufacturer.

**CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)****4.10 WINTER FUEL TREATMENT AND TESTING**

**Purpose:** To avoid problems with diesel fuel.

**Procedures:** Reference INFO BULLETIN 009-007 available on the Fleet Management Division website.

The increasing demands of the environmental restrictions placed on equipment and fuels will be the driving forces behind a proactive and aggressive fuel management program to prevent costly repairs and the impact of downed equipment during storm events.

The first step to ensure the quality of fuel being delivered to your facility is to develop a relationship with the fuel supplier to understand the type of fuel being delivered to your facility, whether it is a blend of Ultra Low Sulfur Diesel (ULSD)/Ultra Low Sulfur Kerosene (ULSK) and or Bio-Diesel. The fuel supplier should be able to supply information on the treatment process and operability of the fuel you are receiving and guide you for up treating compatibility to meet extreme cold temperature operation. If they cannot provide information on the characteristics of your fuel, immediate testing will be necessary.

It is authorized for Districts 1-0, 2-0, 3-0, 4-0, and 10-0 that have traditionally experienced difficulty with extreme cold weather operability purchase Ultra Low Sulfur Kerosene (ULSK) from the ITQ tank wagon contract and blend ULSK with the base fuel available on the statewide contract to achieve a maximum 20% concentration of ULSK (pre-blended). Fuel sampling should be performed after blending with ULSK to test cold weather operability. Blending with 20% ULSK in these Districts should be performed for the months of January and February, only to provide additional cold weather operability.

Storage tank maintenance is critical in providing clean dry fuel for our vehicles. Inspect fuel storage tank fill caps and lids monthly to insure they are sealed and not cracked or broken. It is recommended that all fuel dispensers be equipped with water absorbing filters available on contract statewide.

Counties will be required, at a minimum, to test fuel quality in storage tanks by submitting a tank sample by the 10th of every month. Counties should submit samples when fuel is delivered to understand the quality of fuel being received at the time of delivery. If the supplier has not provided you with the characteristics of the fuel being delivered (I.E. CFPP, Gel Point, etc). Monthly analysis will identify the current condition of the tanks and the fuel contained within and should prompt you to take any action necessary to treat the fuel to the optimum operability range.

Samples will be provided by two methods, nozzle sample and bottom sample. The nozzle sample will be drawn via the fuel nozzle for the months of October through March. The bottom sample will be drawn using a bottom sampler for the months of April through September.

Microbes, free water, bottom sediment and entrained water all contribute to filter plugging. Identifying and eliminating these conditions are especially important to winter operability. Test results indicating that water and bacteria have been found will require immediate action. Add a chemical biocide for the next two (2) bulk fuel deliveries at the recommended treat rate and water dispersant at the recommended treat rate for the next four (4) fuel deliveries. Refer to statewide fuel management contract for additives and equipment. Testing and monitoring throughout these treatments will provide feedback on improving fuel conditions.

To assure additive compatibility use the same additives in your fuel tanks as supplied in the fuel from your fuel supplier. Consult with the fuel supplier and retail locations for recommended up treating ratios and compatibility. Fuel treatment products should be kept in stock for treating fuel that is untreated and fuel purchased at retail locations during extreme cold temperatures. Material numbers for fuel management products listed on these contracts must be extended in SAP to each plant prior to ordering.

Veeder-Root systems should be monitored closely for alarm and measured water levels, confirm water levels using the stick and paste method. If a water level is detected it will be necessary for the tanks to be cleaned and the water to be removed.

Enclosed is a "Winter Operation Preventative Maintenance Checklist" that you may consider using as a tool to ensure operational readiness.

## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.10 WINTER FUEL TREATMENT AND TESTING (Cont'd)**

#### **Winter Operation Preventative Maintenance Checklist**

##### **Vehicles & Equipment**

- Fill saddle tanks on equipment at the end of every shift.
- Replace Fuel filters that are more than 50% beyond their recommended life at next PM.
- Filter Pore Size is critical; use the manufacturer's maximum allowable filter pore size.
- Water Separators and Davco filters should be checked daily, any water should be drained immediately.
- Tank Bottoms on equipment should be drained during routine PM to remove sediment and water; allow time for tank to settle.
- Fuel Caps on equipment should fit tight and secure, inspect seals for cracks and damage during routine PM.
- Tank Vents on equipment should be inspected during PM to assure water cannot enter.

##### **Fuel Storage Tanks**

- Tank Bottoms: Use a bottom sampler and water paste to check for water and contaminants.
- Dispenser Filters should be designed to absorb water and checked regularly.
- Tank Fill Ports: should be above grade and not allow water to enter.
- Caps & Lid Seals: inspected for cracks and damage.
- Overfill Buckets: Check for cracks and proper drain valve operation, remove any water.
- Vents inspected to prevent snow and rain from entering, use desiccant cap vents.

### **4.11 ENGINE COOLANT (ANTIFREEZE) MAINTENANCE POLICY**

**First and most important, be certain to identify the type of engine coolant required by the manufacturer before topping off/filling any equipment to avoid possible contamination, and/or harm, to the engine and/or cooling system components.**

The following is the policy on engine coolant maintenance, testing and drain intervals for the Department's motorized fleet, both gasoline and diesel.

The Department uses multiple antifreeze formulations based on the type of engine: gasoline or diesel. Each formulation should be used only in the engine type it is designed for. Although no immediate damage may result, the long term effects of using the wrong formulation could result in major engine or cooling system component failure. The different antifreeze formulations are:

#### **New Equipment Testing - Diesel**

##### **Ultra Extended Life Coolant (Ultra ELC)**

With the introduction of the 2010 emission compliant International MaxxForce 11 and 13 liter engines, these units will be using an Ultra Extended Life Coolant (Ultra ELC) (factory filled with Shell Rotella brand) in their MaxxForce 11 and 13 liter products. This is a nitrate free product. It is not compatible with our current on-contract Fleet Charge antifreeze. It is highly recommended that you do not mix these two products. **Ultra Extended Life Coolant (Ultra ELC) may be diluted up to 20% with our current on-contract Fleet Charge antifreeze in an emergency only.** Final Charge, an ELC (OAT), Nitrate Free coolant, is available on statewide contract. It is recommended that you purchase Ultra ELC from the Aftermarket Parts Contract or the OEM Parts Contract until such time larger quantities become available on statewide contract. Manufacturers of this product include, Shell (Rotella Ultra ELC Extended Life), Final Charge (Global Extended

## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.11 ENGINE COOLANT (ANTIFREEZE) MAINTENANCE POLICY (Cont'd)**

Life), Fleetguard (ES Compleat OAT Extended Life), Mobil (Delvac Extended Life), and Detroit Diesel (Power Cool Plus Extended Life).

**Please note, do not confuse Extended Life Coolant (ELC) systems with Ultra Extended Life Coolant (Ultra ELC) systems. These two products are not compatible.**

#### **Extended Life Coolant (ELC)**

Newly received diesel powered equipment with Extended Life Coolant (ELC) shall be tested at the first PM for the following: freeze protection, pH and nitrite levels. If the test results indicate that the pH or nitrite levels are low then add the PENCOOL 3000 supplement. PENCOOL 3000 is the only approved additive product.

The following procedure must be followed on new diesel equipment which is factory filled with Extended Life Coolant (ELC) to convert the antifreeze to the PENCOOL formulation without requiring a drain, flush and fill. Extended Life Coolant (ELC) systems can be converted to Fully Formulated Coolant (FFC) systems by using the Penncool 3000 liquid additive product by adding 1 pint per every 4 gallons, 2 pints per 8 gallon system, 3 pints per 12 gallons, etc. The RED ELC system is partially charged and will require no additional additive for the first 4 gallons of the system, then add 1 pint per 8 gallon system, 2 pints per 12 gallon system, 3 pints per 16 gallons, etc. Increases of additional additive may be required on larger capacity systems at a rate of 1 pint per every additional 4 gallons of system capacity.

After completing this conversion process the unit can be tested and treated as a PENCOOL system at subsequent servicing.

The extended life coolant has a distinctive additive package and can be recognized by its red or orange color. The coolant on the DGS contract is compatible with the extended life coolant and may be used to maintain the freeze protection level and to top-off the extended life coolant systems.

The following maintenance procedure should be followed for new equipment with extended life cooling systems.

#### **Gasoline Engines**

Maintain the fluid level and freeze protection level (-15 to -40 degrees F) by adding a 50-50 mix of standard coolant that is on the DGS contract for gasoline engines.

Check the pH level at each PM to ensure that it is at the acceptable level (8.5 through 10.5). If the pH level is not acceptable, the system should be drained, chemically flushed and filled with a 50-50 mix of standard coolant from the DGS contract.

#### **Diesel Engines**

Maintain the fluid level and freeze Protection level between -40 degrees F and -15 degrees F. NOTE: This will be waived for units less than two (2) years old (or if unit came factory filled with an Extended Life Coolant) if the protection level is lower (greater than -40 degrees F) than -15 to -40 degrees F.

Check the pH level at each #2 PM to ensure that it is at the acceptable level (8.5 through 10.5). If the pH level is not acceptable, the system should be drained, chemically flushed and filled with the 50-45-5 pre-mix diesel engine coolant from the DGS contract.

Due to the formulation of the additive package in the extended life coolant, nitrite testing is not necessary.

#### **Test Procedure**

Freeze Protection - Gasoline and Diesel

To ensure adequate freeze protection of the antifreeze the use of a refractometer or test strip is necessary. The acceptable range of antifreeze protection is -15 thru -40. If outside this range, the system must be adjusted to within



**CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)****4.11 ENGINE COOLANT (ANTIFREEZE) MAINTENANCE POLICY (Cont'd)**

this range. Protection level between -40 degrees F and -15 degrees F. NOTE: This will be waived for units less than two (2) years old (or if unit came factory filled with an Extended Life Coolant) if the protection level is lower (greater than -40 degrees F) than -15 to -40 degrees F. Freeze protection testing is done at each PM.

pH Level - Gasoline and Diesel

pH testing can be accomplished by the use of a pH strip or by the use of an electronic pH meter. The acceptable pH range is between 8.5 through 10.5.

Nitrite Strip Test - Diesel Only

For nitrite testing of the pre-mix antifreeze use only the strip test kits # TS100 or # TS200 manufactured by Penray. Testing is to be completed at each #2 PM

**NOTE:** Coolant must be at or above room temperature to ensure accuracy of test.

**TESTING****#1 PM**

- |    |                   |   |
|----|-------------------|---|
| a. | Gasoline Engines: | Check coolant level. Test coolant freeze protection and pH. |
| b. | Diesel Engines:   | Check coolant level. Test coolant freeze protection.        |

**#2 PM**

- |    |                   |  |
|----|-------------------|--|
| a. | Gasoline Engines: | Check coolant level. Test coolant freeze protection and pH.  |
| b. | Diesel Engines:   | Check coolant level. Test coolant freeze protection. Perform pH and nitrite strip test.<br>Note; Although Ultra Extended Life Cooling (Ultra ELC) systems are nitrite free systems, the nitrite strip test is still performed on these systems to check for the presence of nitrites, which would indicate a contaminated system requiring draining, flushing, and refilling the system. |

**MAINTENANCE**

Most coolant maintenance requirements are based on the results of the various tests performed during PM inspections.

These requirements are:

pH Test Failure - Most often the result of depleted coolant additive package. In diesel engines the nitrite strip test usually fails also. Addition of PENCOOL 3000 as required by the nitrite test results usually solves the problem.

In extreme cases the cooling system may need to be drained, flushed and refilled with pre-mix antifreeze. In gasoline engines, a failed pH test requires a drain, flush and fill with the correct mix of standard antifreeze. Retest after completing the maintenance.

Nitrite Strip Test Failure - Addition of the correct amount of PENCOOL 3000 additive, as called for in the chart accompanying the test kit, will solve this problem. Do not overprotect. Retest after adding the additive and operating the unit to mix it throughout the cooling system. The PENCOOL additive is available for purchase on the Fleet Maintenance Aftermarket Vehicle Parts & Supplies Contract.

Freeze Protection Failure - A failure of this test can most often be corrected by draining a small quantity of coolant and adding concentrate to raise the freeze protection. In those cases where there has been an introduction of pure water into the cooling system and the freeze protection level is outside the acceptable freeze protection range, then and only then may pure antifreeze be used to bring it into the acceptable range.

## **CHAPTER 4: PREVENTIVE MAINTENANCE PROGRAM (Cont'd)**

### **4.11 ENGINE COOLANT (ANTIFREEZE) MAINTENANCE POLICY (Cont'd)**

Do not overprotect the system. Calculate the correct amount and add only that amount. After adding the concentrate, run the unit to mix the coolant and re-test for freeze, pH and nitrites. NOTE: Extreme over concentration of the supplemental coolant additive package will be damaging to the entire cooling system.

#### **Coolant Drain Intervals**

Coolant drains based on time are no longer required by policy. The only circumstances requiring coolant drain, chemical flush and refill with fresh coolant are:

Gasoline Engines - failed pH test or a visual indication of contamination.

Diesel Engines - Inability to correct pH level by using additive without overprotecting the system or a visual indication of contamination.

#### **Coolant Filters**

Coolant filters must be replaced annually. Only non-charged (no conditioner) filters may be used. Filters are available from the Fleet Management Division Storeroom for most applications.

#### **Used Antifreeze Disposal**

All spent coolant must be disposed of in accordance with appropriate Department and environmental regulations



## **CHAPTER 5: ACCIDENTS**

### **5.1 ACCIDENTS INVOLVING MAINTENANCE AND AUTOMOTIVE EQUIPMENT**

**Scope:** The following applies to all accidents involving Department motor vehicles or equipment (except aircraft) either on or off the highway, regardless of how minor the injury and/or damage involved.

**Policy:** After any accident, however minor, involving Department equipment or a motor vehicle (either on or off the highway), the operator and the operator's immediate supervisor are required to report that accident in the manner prescribed below.

All Accidents or Injuries need to be reported. An accident involving Department equipment or motor vehicles which results in a fatality, serious personal injury and/or property damage over \$20,000.00 shall be the subject of an immediate investigation. The operator concerned shall be immediately suspended from operating Department equipment/motor vehicles until such time as the accident is investigated and the District Executive (Chief Engineer for Central Office vehicles) approves reinstatement of operator privileges.

**Responsibility:**

**1. OPERATOR OF VEHICLE/EQUIPMENT INVOLVED IN ACCIDENT**

- Notify State or Local Police (or the Capitol Police if within the Capitol Complex) and request an investigation of the accident. If outside the Commonwealth, request an investigation by Local Police. In the event the Police will not respond to the scene of the accident, it is the responsibility of the Department to complete form AA-600 Drivers Accident Report.

Exception: A State or Local Police investigation is not required when all four of the following conditions are met:

- a. An accident involves Department equipment only and
  - b. Involves no personal injury or fatality and
  - c. Damages are less than \$2,000.00, and
  - d. The vehicle does not have to be towed away.
- Prepare form AA-600 (Drivers Accident Report) and notify immediate supervisor as specified below.

**NOTE:** Form AA-600 is required for all billable "Claims" (money owed the Department) where the accident has been deemed non-reportable.

**2. OPERATOR-EMPLOYEE'S SUPERVISOR**

- Prepare and submit the written forms STD-541 (Automobile Accident or Loss Notice), AA-600 (Drivers Accident Report), Accident Investigation Report (P-25), and Commonwealth Employee Witness Statement (when applicable) as specified in the procedure below.

**3. ALL DEPARTMENT ORGANIZATIONS**

- Ensure vehicle Registration Card, No-Fault Insurance Card, three (3) Grab and Go Fleet & Equipment Accident packets(per PPIM 13-156) which includes the STD-541 (Automobile Accident or Loss Notice, Altered for PennDOT use), Accident Investigation Report, P-25 and the Commonwealth Employee Witness Statement. The following additional forms are to be included with the Grab and Go packets: One(1) blank M-804 (Equipment Repair Costs), three (3) blank forms AA-600 (Driver's Accident Report), two (2) additional blank Commonwealth Employee Witness Statements, one(1) form M-614 (Operator's Daily Report for Mobile Equipment), one (1) PennDOT Pub 22 and one (1) Official Transportation Map are in each motor vehicle, e.g., automobiles, trucks, etc. (this does not include construction equipment) at all times. See FORMS AND FORMS COMPLETION Section 5.2 on page 8 which identifies the electronic location of the aforementioned forms. The electronic forms are to be used to create the accident reports for submission to Bureau of Maintenance and Operations (BOMO), Fleet Management Division. Complete all forms electronically and print one (1) copy for signature, date, and to fill in the accident diagram (as required). When forms are completed, make one copy of the report. The County retains one (1) copy and forwards the original accident file to the District Equipment Manager for review. The District retains one (1) copy of the original accident file locally. **Prior to submitting the form STD-541 to BOMO, FMD, an electronic form STD-541 must be forward to the Department of General**

**CHAPTER 5: ACCIDENTS (Cont'd)****5.1 ACCIDENTS INVOLVING MAINTENANCE AND AUTOMOTIVE EQUIPMENT (Cont'd)****Responsibility: (Cont'd)****3. ALL DEPARTMENT ORGANIZATIONS (Cont'd)**

**Services (DGS), Bureau of Risk and Insurance Management (BRIM) within 48 hours. This electronic document may be sent via fax to 717-772-3846 or via e-mail to GS, BVM 541 (RA-bvm541@pa.gov).** The STD-541 and all correlating documents, are to be forwarded to BOMO, FMD electronically via email to PD, FMD Equipment Accident Reports using the following naming convention. (Organization, Driver Name, and Date of Accident).. (Save electronic forms to a local 'Accident Folder' identify the "Equipment Number and Accident Date" as the file name.)

**Procedure****1. OPERATOR/EMPLOYEE**

- All Accidents or Injuries need to be reported. If an accident results in a serious injury, or fatality to a non-Department employee or property damage over \$10,000, report the details at once by telephone to the DGS, BRIM. During normal hours, call 717-787-4987; at other times, call the Capitol Police at 717-787-3199. Collect calls will be accepted.
- Immediately prepare form Accident Investigation Report (P-25) and by telephone, relay the information to your supervisor. This form may be included in the accident file in hand written format.

**2. EMPLOYEE'S SUPERVISOR**

- Immediately upon receipt of the completed form Accident Investigation Report (P-25) relay the information, by telephone, to the Safety Coordinator in the Engineering District in which the accident occurred. The form Accident Investigation Report is to be forwarded to BOMO, FMD electronically as part of the accident file.
- Within 48 hours, prepare an original and one copy of form STD-541 (Automobile Accident or Loss Notice) and all other required forms. The original is forwarded to the District Equipment Manager, one (1) copy is retained for file at the County level.
- The District Equipment Manager reviews the accident file for content, completeness and verifies submission to DGS/BRIM. The completed original file is forwarded electronically to PD, FMD Equipment Accident Reports inbox within ten (10) business days of the accident date.
- The State or Local Police must investigate every accident involving Commonwealth vehicles (except as noted in Section 5.1, Responsibility, Bullet Point 1 on page 1). If for some reason it is not investigated and the accident involved any injury or fatality, or any of the vehicles had to be towed, prepare and submit form AA-600 (Driver's Accident Report) to the Bureau of Highway Safety & Traffic Engineering (BHSTE), Accident Information Systems Division, P.O. Box 2047, Harrisburg PA 17105-2047 within five (5) business days. Include form AA-600 as part of the accident file, if this form was completed. If State or Local Police did investigate the accident obtain and attach a copy of the investigation report as part of the accident file.
- Whenever possible provide photographs. If the equipment is a total loss or if a fatality, photographs are mandatory (discretion is to be used in the event of a fatality).

**3. ALL DEPARTMENT FUNCTIONS EXCEPT MAINTENANCE DISTRICTS**

- Forward STD-541 and all required forms and attachments to PD, FMD Equipment Accident Reports inbox. Refer to FORMS AND FORMS COMPLETION in Section 5.2, page 8 for instructions on completing forms.

**4. MAINTENANCE DISTRICTS**

- The original and one (1) copy of form STD-541 along with all required forms and attachments must be forwarded through the District Equipment Manager. At this level form STD-541 is reviewed for content, completeness and verifies submission to DGS/BRIM prior to submitting to BOMO-FMD (refer to FORMS AND FORMS COMPLETION in Section 5.2, page 8 for instructions on completing forms). The District will retain the original for file.

## **CHAPTER 5: ACCIDENTS (Cont'd)**

### **5.1 ACCIDENTS INVOLVING MAINTENANCE AND AUTOMOTIVE EQUIPMENT (Cont'd)**

#### **Procedure (Cont'd)**

#### **4. MAINTENANCE DISTRICTS (Cont'd)**

Special instructions for multiple Department pieces:

- A. If two (2) pieces of Department equipment are involved in the same accident, one (1) form STD-541 may be used to identify vehicle #1 as the driver who was the primary cause. Vehicle #2 should be used to identify the second piece of Department equipment and the operator. This will eliminate the need for submitting separate form STD-541's and will provide one (1) Accident File Number to enable equipment repairs.
- B. If the Department equipment involved in the accident had an attached piece (or pieces) of equipment, such as a plow, spreader, attenuator, arrowboard, kettle, etc., those pieces involved in or damaged by the accident (the motorized equipment and attachments) must be included on form STD-541. Multiple pieces of equipment can be listed on the upper portion of form STD-541.

Information to be included on form STD-541 in the event of multiple Department pieces of equipment.

- Example #1: Dump truck with a plow and spreader attached where all three (3) pieces of equipment were impacted. All pieces must be included on form STD-541.
- Example #2: Dump truck with a plow and spreader attached where only the dump truck and spreader were impacted, the truck and spreader information is required on form STD-541. The plow is of no consequence in this accident and is not required.

#### **5. FLEET MANAGEMENT DIVISION**

- Upon receipt of the form STD-541 and attachments at BOMO-FMD, form STD-541 is reviewed for completeness, an Accident File Number is affixed and pertinent information is recorded on the Accident Log spreadsheet.
- The original form STD-541 with all attachments is maintained on file at the District Office.
- An electronic acknowledgment indicating Accident File Number with relative information is e-mailed to the District Equipment Manager for file. District Equipment Manager forwards electronic acknowledgement to Counties within their District to inform them of the Accident File Number; equipment repair may begin at this time.

**NOTE:** Repairs cannot be performed on equipment without an Accident File Number. In an "Emergency" the District Equipment Manager may phone BOMO-FMDivision for a verbal commitment of the Accident File Number to be followed up immediately with form STD-541 and all required documents.

#### **6. ALL FIELD OPERATIONS**

- All accident repairs to Department equipment must have a Work Order created in Plant Maintenance whether repairs were done In-House or by Outside Vendor. The Work Order shall be charged to either Assembly Code "813851101" No Claim (non-reimbursable accident repairs) or Assembly Code "813837701" Claim (reimbursable accident repair), not both. The Accident File Number MUST be included on all paperwork. Reference Purchasing Manual to evaluate the proper procedures to execute purchase and payment of services from outside vendors.

## **CHAPTER 5: ACCIDENTS (Cont'd)**

### **5.1 ACCIDENTS INVOLVING MAINTENANCE AND AUTOMOTIVE EQUIPMENT (Cont'd)**

#### **Procedure (Cont'd)**

### **6. ALL FIELD OPERATIONS (Cont'd)**

- In the event the accident is a "Claim" (the other party is at fault), the Department can bill for reimbursement of repairs to the Department equipment. The following must be provided:

When repairs are performed by an Outside Vendor, form M-804 must be completed and submitted along with a copy of the Vendor's invoice, the payment document (VISA receipt or SAP documents) and forwarded to the District Equipment Manager where documents are reviewed for completeness prior to submitting to BOMO-FMD Division to process a Plant Maintenance RA document for billing purposes.

When the repairs are performed In-House, an original form M-804 detailing the Equipment Repairs (Labor) (top section), Parts & Materials (mid section) and Services Rendered, Miscellaneous Expenses (bottom section) must be completed in detail and forwarded to the District Equipment Manager. All documents are reviewed for content and completeness prior to submitting to BOMO-FMD to process a Plant Maintenance RA document for billing purposes. Refer to FORMS AND FORMS COMPLETION in Section 5.2, page 11 for instructions on completing form M-804. Create form M-804 electronically; copy for signature and date, forward signed form M-804 to BOMO-FMD electronically.

If the repairs performed were a combination of Outside Vendor parts/services and In-House repairs, forward all the appropriate documents as one (1) complete package, based on the previous directions to the District Equipment Manager where documents are reviewed for content and completeness prior to submitting to BOMO-FMD Division to process a Plant Maintenance RA document for billing purposes.

If at the time the form STD-541 is completed it is known there are 'No Damages' to Department owned equipment, submit a signed and dated form M-804 with the statement 'No Damages'. In most cases this will eliminate follow-up for more documentation.

- Information may be requested from the Department by various outside sources. The District Equipment Manager is responsible for the monitoring of the requests and responses, also, ensures form STD-541 has been submitted for processing. The following are some common requests and conditions to be met:

#### **1. Insurance Company Requests:**

- a. Due to Department equipment being registered to the Fleet Management Division, 17th Street and Arsenal Boulevard, Harrisburg, PA, requests for various types of information are received at this address. If possible, inquiries will be handled at this level, in the event BOMO-FMD has not received notice of the accident in question, the District Equipment Manager will be enlisted to gather supporting documents.
- b. A narrative of the accident may be requested and supplied by the individual involved in the accident. This request will be an Insurance Form which may be received at BOMO-FMD, then forwarded to the District Equipment Manager or received by the employee directly. Comply with the request and forward a copy to BOMO-FMD, indicate the accident date, equipment number and the Department's Accident File Number on the Fleet Management Division's copy.
- c. Insurance adjusters may view the Department equipment prior to repair, but repair is not to be delayed unnecessarily for such a review.

## **CHAPTER 5: ACCIDENTS (Cont'd)**

### **5.1 ACCIDENTS INVOLVING MAINTENANCE AND AUTOMOTIVE EQUIPMENT (Cont'd)**

#### **Procedure (Cont'd)**

### **6. ALL FIELD OPERATIONS (Cont'd)**

- d. Request for release of Department owned equipment; such as Construction Equipment, Heavy Trucks (that are a total loss), or the parts replaced when unit is repaired, is prohibited. The Department retains total ownership rights of said equipment.

Request for release of Department owned vehicles; such as Personnel Vehicles and Crew Cabs (that are a total loss) or the parts replaced when unit is repaired will be at the discretion of BOMO-FMD. The Department must obtain a Certificate of Salvage prior to release of ownership of said equipment to the insurance company.

- e. The Department in No Instance shall be permitted to furnish a copy of form STD-541 (this form is NOT public record) if requested. The Department is NOT authorized to furnish a copy of the Police Vehicle Accident Report in accordance with PA Motor Vehicle Code, Section 3751(b).

#### **2 Police Reports:**

- a. When a Police Vehicle Accident Report is received at BOMO-FMD it is to be attached to, and filed with, the Department's form STD-541. If the form STD-541 has not been received and processed through BOMO-FMD, a copy of the Police Report will be forwarded to the District Equipment Manager requesting submission of form STD-541 and all correlating documents.

#### **3. Correspondence:**

- a. Correspondence received by BOMO-FMD will be handled at this level, when possible. The District Equipment Manager will be contacted for additional information when necessary. If the correspondence is forwarded to the District Equipment Manager by BOMO-FMD for response, a courtesy copy must be forwarded to FMD for attachment to the Accident File. (Reference the accident date, equipment number and the Department's Accident File Numbers.)

BOMO-FMD will monitor Accident Files on a monthly basis. The District Equipment Manager will be notified electronically of all outstanding documents and/or correspondence necessary to process and close Accident Files. Items requested will include, but will not be limited to the following: Forms STD-541 and M-804, Invoices and replies to correspondence.

Upon the third request for any of the above indicated items, notice will be sent to the Assistant District Executive - Maintenance from the Director, Bureau of Maintenance and Operations for immediate action.

**NOTE:** The Accident File Number **MUST** appear on all documents and correspondence sent to BOMO-FMD after the file number has been assigned to the original form STD-541.

**NOTE:** Under **No Circumstance** is the Insurance Company permitted to pay a repair facility directly for equipment accident repairs. Under **No Circumstance** do we accept payment of checks from the Insurance Company. A Plant Maintenance RA document is created and billed directly to the owner of the vehicle from whom we are seeking reimbursement.

**NOTE:** Under **No Circumstance** is the field permitted to create RA-Equipment Accident Notifications in Plant Maintenance. BOMO-FMD is fully responsible for managing and creating all RA-Equipment Accident Notifications.

**CHAPTER 5: ACCIDENTS (Cont'd)****5.2 FORMS AND FORMS COMPLETION**

The following forms are current, accessible and can be downloaded and saved to a local Accident Folder. Electronic forms are located on the BOMO Intranet Website.

To access the website go into MS Outlook:      Open: Outlook Today  
Click: BOMO Intranet  
Click: Fleet Management Division  
Click: Accident Info

<u>FORM</u>	<u>TITLE</u>	<u>LOCATION</u>
STD-541 . . . . .	Automobile Accident or Loss Notice. . . . . (Altered for PennDOT use)	BOMO Intranet Access
M-804 . . . . .	Equipment Repair Costs . . . . .	BOMO Intranet Access
P-25 . . . . .	Accident Investigation Report. . . . .	BOMO Intranet Access
AA-600 . . . . .	Driver's Accident Report. . . . .	BOMO Intranet Access
Un-numbered . . . . .	Commonwealth Employee Witness Statement . . . . .	BOMO Intranet Access

**REFERENCES**

1. Management Directive 615.2 amended June 17, 1996
2. Personnel Manual, Chapter 34
3. Purchasing Manual

THE EMERGENCY PACKET MUST ALWAYS REMAIN IN THE GLOVE OR STORAGE COMPARTMENT OF THE VEHICLE. Replenish the Emergency Packet with necessary forms as they are used.

**PACKET CONTENTS:**

1. Vehicle Registration Card
2. No-Fault Insurance Card
3. Official Transportation Map
4. PennDOT Pub 22

**ACCIDENT FORMS:**

1. (3) STD- 541 Automobile Accident or Loss Notice (Altered for PennDOT use)
2. (1) Form M-804 Equipment Repair Costs
3. (3) Accident Investigation Report (P-25)
4. (3) Driver's Accident Report AA-600
5. (5) Commonwealth Employee Witness Statement
6. (1) Form M-614



**CHAPTER 5: ACCIDENTS (Cont'd)****5.2 FORMS AND FORMS COMPLETION (Cont'd)****FORMS COMPLETION**

All necessary Blank Forms are available on the BOMO Intranet site.

**Form STD-541 Automobile Accident or Loss Notice**

The following information is required (complete information number to number).

1. STD-541 must be forwarded to DGS/BRIM within 48 hours of accident via e-mail RA-bvm541@pa.gov or fax at 717-772-3846. Yellow Box must be marked and dated to indicate document was forwarded to DGS/BRIM.
2. Date of Accident (6 digit date - mm/dd/yy)
3. Day of the week (Day of week incident occurred; Mon, Tue, etc.)
4. \*Time of day (Military time is preferred)
5. \*Shift starting Time (\_\_\_\_\_a.m. or \_\_\_\_\_p.m.)
6. Year (Model year of Department's equipment involved)
7. Make (Manufacturer of Department's equipment involved)
8. Model (Type of equipment, i.e., plow, spreader, kettle, arrow board, excavator, grader, dump truck, truck, van, sedan, attenuator, etc.)
9. Equipment Number (The 7 digit number assigned by the Fleet Management Division)  
**NOTE:** If operating unit is equipped with an attachment (plow, spreader, attenuator, etc.) that is involved/damaged in the accident this information **MUST** also be included on form STD-541.
10. Serial number (Vehicle Identification Number, number assigned at point of manufacture or serial number assigned at the Fleet Management Division)
11. Registration Number (License plate number, PA/5 digits or 5 digits/PA)
12. Assigned To (Give the 4 digit Organization, District or County Code - Ex: 0101 District 1-0)
13. \*Personnel Number of Department employee
14. Vehicle Number 1 (Department employee's operator information/address of work location)
15. \*Years of Service (Number of years worked for the Department)
16. Bureau (Bureau to which employee is currently assigned)
17. \*Job Title (Diesel Mechanic, TEO-A, Clerk Typist, RPT, etc.) and 5 digit Job Class Code
18. Purpose for using Department Equipment at time of accident.
19. \*Employee Activity Code if applicable (9 digit code: (3) Program, (4) Function, (2) Method)
20. Describe damage to Department Equipment and estimated repair costs.
21. Insurance Carrier (Self Insured)
22. Policy Number (SI-3)
23. Location of Accident (Provide information as required) City, Street, County, Rural Area, \*SR, Segment and Offset or miles N, E, S, W of City
24. Persons injured or killed (Complete when applicable)
25. Vehicle Number 2 (Provide all driver and vehicle information as required. If more than one private vehicle is involved in the accident, use additional STD-541's to provide information for other operators and vehicles.)

## **CHAPTER 5: ACCIDENTS (Cont'd)**

### **5.2 FORMS AND FORMS COMPLETION (Cont'd)**

#### **FORMS COMPLETION (Cont'd)**

26. Damage to Property other than auto to include private, public and department property (Provide information requested. Ex: utility pole, bridge, guiderails, building, fence, mailbox, etc., with address/location, extent of damage and estimated cost of repair.)
27. Was accident reported to Police (Yes or No)  
If Yes, To Whom? (Identify State or Local Police, provide incident number)
28. Were warning signs in place (Yes or No)  
If Yes, Where? (Generalize area) Flagman (Yes or No)  
\*Operation Was: Moving/Stationary (Check One)
29. If Citation Issued to Whom?
30. Witnesses (Supply information when possible)
31. Signature of Vehicle Operator or Supervisor and Date **(Mandatory)**
32. Signature of Automotive Officer and Date **(Mandatory)**
33. Reverse of form STD-541 complete as required (Page 2)
34. Give detailed and clear account of accident (Print form STD-541 and Complete Diagram)

\* Bureau of Human Resources, Employee Safety Division Requirement

## **HEADER SECTION**

1. Accident File # (2 Alpha 3 Numeric, as assigned by Fleet Management Division) and accident date
2. Organization Code/District (County where repairs were performed)
3. Work Order (Work Order Number assigned through Plant Maintenance)  
**NOTE:** Keep Work Order unique to the accident repairs. DO NOT include other Work Orders on the Accident Repair Work Order, Ex:, PM's, engine repair, etc
4. Year, Make and Model of Equipment
5. Equipment Number(s)

### **Form M-804 Equipment Repair Costs**

#### **EQUIPMENT REPAIRS (LABOR) - TOP SECTION**

6. Dates (Date repair work was performed)
7. Nature of Repair Performed (Detailed description of work performed –  
EX: Repairs to Department equipment for accident damage, list repairs performed)
8. Initials of Mechanic
9. Hourly Rate: In Plant Maintenance the Labor rate is not available. In order to list a labor rate it will need to be calculated; the screenshots for the instructions can be found on the BOMO/Fleet Management Division Intranet website attached to the M-804 form.

**NOTE:** All mechanic payrolls must be posted (every two weeks) in order to capture actual total costs for accident repair.

**NOTE:** If there are multiple mechanics working on a Work Order; you will only calculate the hourly rate using one employee.



## **CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL**

### **6.1 EQUIPMENT REPAIRS**

#### **RECAPITALIZATION AND EXTENSION OF DEPRECIATION PERIOD**

The following is the Department's policy on the capitalization of major repairs to department-owned equipment. In order to properly reflect the cost of purchasing and maintaining department equipment for management reporting and calculation of department equipment rates as well as a requirement for FHWA reimbursement of any equipment costs, it is necessary to depreciate the purchase cost of the equipment. Likewise, it is required that any major repairs must be depreciated over the remaining life of the equipment. The reason for depreciating equipment and major repair costs is to spread these costs over the estimated useful life of the equipment instead of charging all of these costs the year the expenditures are incurred.

Major repairs of \$5,001.00 or more (estimated cost of labor and parts) will always be capitalized. In addition, repairs of \$5,001.00 or more must be reviewed to determine if these repairs will extend the estimated useful life of the equipment. This review and determination is the responsibility of the District Equipment Manager.

#### **Purpose:**

To explain how the capitalization of major repairs and extension of the equipment's estimated useful life is to be accomplished.

#### **Definitions:**

1. Depreciation Period - The period of time over which the cost of a piece of equipment will be pro-rated. This period is also referred to as the estimated useful life of the equipment.
2. Capitalization of Department Equipment Repairs - Depreciation of major repair costs over its remaining useful life as opposed to charging all costs in the year the repair occurred.
3. Major Repairs - Repairs of \$5,001.00 or more, whether the original depreciation period is extended or not.
4. Extension of Depreciation Period - An increase in the original depreciation period as a result of major repairs.

#### **Policy:**

Repairs of \$5,001.00 or more -

Estimated cost of repairs of \$5,001.00 or more must be approved by the use of the 838 repair order approval process in Plant Maintenance. If the unit of equipment has used over half of its useful life, the County Equipment Manager must make a determination whether the original depreciation period will be extended. The District Equipment Manager should review this figure and correct it if they should find an error. Will the major repairs extend the time beyond the original depreciation period that the equipment can reasonably be expected to remain in service? If it is determined the repair will extend the useful life of the equipment the life of the equipment must be extended on the Plant Maintenance Equipment System by contacting the Fleet Management Division.

### **6.2 PURCHASING FOR REPAIR OF VEHICLES AND RELATED EQUIPMENT**

(Refer to Publication 3, DOT Highway Equipment and Aircraft Repair Purchase Procedure and Publication 358, PENNDOT Purchasing Manual)

Scope: This Procurement Procedure applies to procurement for the repair of vehicles and any related equipment which has been or will be assigned an equipment number by the Fleet Management Division of the Bureau of Maintenance and Operations, and to the procurement of garage and shop tools.

Engineering Districts, County Maintenance Districts, the Bureau of Aviation, and the Fleet Management Division of the Bureau of Maintenance and Operations are authorized to and will procure repair parts and services consistent with these procedures.

## **CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)**

### **6.2 PURCHASING FOR REPAIR OF VEHICLES AND RELATED EQUIPMENT (Cont'd)**

The procurement of equipment and parts carried on statewide contract are excluded from this procedure and must be purchased in accordance with the PENNDOT Purchasing Manual (Pub. 358) procedures, Chapter 7, Contract Purchases and the DGS Field Procurement Handbook.

Repairs will normally be performed by the initiating organization with repair parts on inventory or purchased consistent with these procedures for a specific job. The procurement of repair parts in place by a vendor is authorized under this procedure only when the initiating organization cannot efficiently perform the repair. The procurement of repair services is encouraged for major rebuilding. The repair of garage and shop tools is also within the scope of this procedure.

The Cash Advancement Account method of payment is also authorized for one time invoices up to \$1,500. See PennDOT's Pub 363, Purchasing Card Manual to determine when and if a Purchasing card may be used.

All equipment repair part procurement procedures are found in PennDOT's Pub 3 and Pub 358.

When completing an 838 Repair Request (W1 Plant Maintenance Transaction) on a unit of equipment, all known repairs and the unit's condition are to be included in the document for management consideration. As part of the Evaluation, a review of the County's available manpower is to be made in order to justify in-house repairs. As a general rule, all major rebuilding shall be supported from outside the Department.

## **INVENTORY MANAGEMENT**

### **1. INVENTORY CATEGORIES**

Maintenance Districts will maintain equipment repair parts in three separate categories as follows:

All items purchased locally and not controlled by Plant Maintenance.

All items controlled by the Plant Maintenance Materials Subsystem.

This is necessary to maintain proper control of equipment repair parts and to stay within the monetary amounts authorized for direct purchase inventory.

### **2. ADHERENCE TO INVENTORY LIMITS**

In order to stay within your responsible inventory limits, stock only new parts necessary to complete emergency repairs and fast moving items as determined by the District Equipment Managers.

Where practical, service repair contracts should be considered as a means to minimize inventory while providing acceptable responsiveness to breakdowns. Specific items may include glass and radiator repair. Where contracts are recommended, the District Equipment Manager shall contact their District SPC Coordinator for guidance, if required.

### **3. INVENTORY PROCEDURE**

- A. Place on inventory (Plant Maintenance or manual) all automotive equipment repair parts, materials and supplies with a value of \$50.00 or more. When buying such items for inventory, use Program 841-845. Make no purchase against Program 813, equipment number 999-9999, for items purchased for inventory. Items to be placed in inventory should be limited to fast moving and emergency repair items. The specific items to be inventoried will be designated jointly by the District Equipment Manager and the County Equipment Manager according to the unique needs and availability of supply for each garage.
- B. Charge automotive parts and supplies withdrawn from inventory and placed directly upon a particular piece of equipment to Program 813 and to the applicable equipment number and work order number by entering into Plant Maintenance Materials via remote computer terminal, an Inventory Issue Transaction as prescribed in the Plant Maintenance Materials User Manual.

## **CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)**

### **6.2 PURCHASING FOR REPAIR OF VEHICLES AND RELATED EQUIPMENT (Cont'd)**

- C. Enter items with the appropriate equipment number into Plant Maintenance Charge expendable items such as brake fluid, compounds, cleaners, polish, tape or valve cores to Program 813, 3 digit organization code and four sevens, i.e., 102-7777.
- D. Paint machine parts carried with the paint machine, although they are put into inventory, shall be charged to Program 813 (this change is an exception only permitted for paint machine parts).

A record of inventory for those parts costing over \$50.00 each must be maintained by the Paint Crew Foreman.

### **6.3 EQUIPMENT WORK ORDERS**

Refer to Plant Maintenance Equipment Users Manual

When purchasing services or supplies for Department-owned equipment under program 813, all expenditures must be charged to a (PME1) work order created for that specific piece of equipment using the appropriate assembly. The 813 work order assembly list is updated as needed and can be accessed at the Fleet Management Division Website.

Each District/County should reference the list of (PME9) Standing Work Orders and assemblies created by the Fleet Management Division in Plant Maintenance for program 813 and 822 to capture costs that cannot be applied directly to an individual piece of equipment utilizing a (PME1) work order under program 813 or costs associated with maintenance of Buildings and Grounds under program 822. Materials and Labor charged against Standing Work Orders are reviewed annually for accuracy when Shop Compliance Reviews are conducted at each of the Maintenance facilities across the state. It is not acceptable to charge any costs (Labor or Materials) to an Internal Order (8xxxx), all costs should be captured via a (PME1 or PME9) work order to accurately analyze and report maintenance costs for equipment and facilities.

PME1 Standing Work Orders that are created by the District or County are to be good for one (1) Fiscal Year. (Excluding the Winter Long Term Work Orders mentioned in Section 7.20 and the PME9s). At the end of the fiscal year the old work order should be closed and a new work order created. Remember not to TECO a PME1 SWO till the end of the Fiscal Year. These must remain in open status through the entire fiscal year.

It is recommended by the FMD Counties do not create PME1 Standing Work Orders outside of the Winter Maintenance Operations.

Only TECO a work order if the work is completed on that unit. If the work is not completed do not TECO that work order.

Once notification is submitted, email PD, Equipment with the notification number. Once completed, email PD, Equipment again with the notification number to verify disposal is completed.

### **6.4 EQUIPMENT REPLACEMENT & DISPOSAL**

When a piece of equipment is delivered to the field, it begins an inevitable journey to the salvage yard. Application of good, sound fleet management practices increase the certainty that the equipment arrives at the salvage yard just on time--not too early or late. Equipment can become economical scrap before it becomes physical scrap.

Once notification is submitted, email PD, Equipment with the notification number. Once completed, email PD, Equipment again with the notification number to verify disposal is completed.

In order to determine how a piece of equipment impacts the department's bottom line, two basic categories of cost must be considered.

1. Owning Costs
  - Depreciation
  - Insurance
  - Indirect costs (Administrative Overhead)
  - Garage and storage costs

## **CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)**

### **6.4 EQUIPMENT REPLACEMENT & DISPOSAL (Cont'd)**

#### **2. Operating Costs**

- Direct costs (all items charged directly to a seven digit number)
- Fuel and oil

Analyzing these elements by measuring the trends of costs of owning and operating equipment over its useful life will enable the fleet manager to spot the optimum point at which the equipment's productivity declines and its maintenance costs rise. It is at this point that it is more cost effective to replace the equipment than to keep it.

#### Replacement Decisions

With the cooperation of both the financial and operational/technical sectors of the department, timely replacement decisions can be made. Computerized equipment analysis programs make weighing financial and technical considerations relatively easy.

### **6.5 DISPOSAL OF UNSERVICEABLE EQUIPMENT POLICY**

Equipment no longer of service to the Department shall be dismantled if:

1. The equipment has no resale value except as scrap metal,  
- OR -
2. The integral parts of the equipment have more value to the Department than the estimated resale proceeds.

Scope: All Department maintenance and automotive equipment.

#### **RESPONSIBILITY**

##### COUNTY & DISTRICT EQUIPMENT MANAGER

- Determine un-serviceability of equipment and initiate recommendation for dismantlement.

##### DISTRICT EQUIPMENT MANAGER

- Conduct inspection of equipment under consideration and approve or disapprove the recommendation.

##### FLEET MANAGEMENT DIVISION

- Grant final approval or disapproval of recommendation for dismantlement.

#### **PROCEDURE**

##### COUNTY & DISTRICT EQUIPMENT MANAGER

- Initiate recommendation for equipment dismantlement by completing the appropriate ED Notification in Plant Maintenance. Note: Plows & Spreaders are not "cannablized" they are "dismantled" if scrapping. Do not select the Cannibalization option.

##### DISTRICT EQUIPMENT MANAGER

- Inspect equipment and approve or disapprove recommendation by checking the DEM box on the status section of the ED Notification in Plant Maintenance.

## **CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)**

### **6.5 DISPOSAL OF UNSERVICEABLE EQUIPMENT (Cont'd)**

#### **FLEET MANAGEMENT DIVISION**

- Review ED notification and approve or disapprove by checking the EQD box in the status section of the notification in Plant Maintenance. Request engine transfer if required.
- Rebuild or dismantle engine and salvage reusable parts. Turn over to the Department of General Services equipment no longer of service to the Department of Transportation.
- Titled Equipment - Upon acknowledgment of dismantlement, forward Form MV-6 (Application for Certificate of Junk) along with the Certificate of Title to the Bureau of Motor Vehicles. Upon receipt of the Certificate of Junk, place it in the history file and close the file.

#### **COUNTY & DISTRICT EQUIPMENT MANAGER**

- Upon receipt of approved ED notification, dismantle equipment and, if requested, ship engine to the Fleet Management Division. Scrap or salvage the remaining portion of the equipment.
- Complete all work within 30 calendar days of receipt of authorization.
- Immediately after equipment is dismantled, acknowledge on the Equipment Master screen in Plant Maintenance; by checking the 'A' (Acknowledged) box on the Equipment Master screen (IE02) in the status box. Also, in the ED Notification, put notes/comments that the dismantlement has been completed.

#### **FLEET MANAGEMENT DIVISION**

- Once the Equipment Master is acknowledged the Fleet Management Division will Deletion Flag the equipment in Plant Maintenance.

### **6.6 SURPLUS OF UNSERVICEABLE EQUIPMENT, TOOLS & SUPPLIES**

#### **ENVIRONMENTAL CONCERNS**

Assure that the storage area is periodically inspected for environmental concerns in accordance with Chapter 20 of the Maintenance Manual, Pub. 23. As part of disposal operations, all fluids should be drained, collected, and properly managed.

The area used for draining and collecting fluids should be paved.

- Fluids like diesel fuel, gasoline and windshield washer fluid should be reused or recycled.
- Other fluids such as brake fluid, crankcase oils, hydraulic fluid, power steering fluid, and transmission fluid should be recycled. Used oil may also be burned in a used oil space heater.
- Antifreeze should be recycled or properly disposed.
- DEF - must be disposed of utilizing sound environmental practices.

Any spills or leaks must be cleaned up. Wastes must be stored in Department of Transportation approved containers.

Other wastes must also be properly managed.

- Undeployed air bags should be salvaged or deployed. Deployed air bags do not require any special handling.
- Lead acid Batteries should be removed and stored for recycling. Any spills or leaks must be cleaned promptly. Leaking batteries must be placed in an approved container. Disposal of lead acid batteries at landfills is prohibited.
- Fluid from fuel and oil filters should be collected and reused or recycled. Drained fuel and oil filters should be recycled.

**CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)****6.6 SURPLUS OF UNSERVICEABLE EQUIPMENT, TOOLS & SUPPLIES (Cont'd)**

- Mercury-containing switches from hood, trunk, and other convenience lighting systems should be removed and stored in an appropriate container for off-site reclamation. Anti-lock braking systems may also contain mercury switches.
- A certified technician must recover refrigerants from air conditioners and other similar equipment. Recovered refrigerants must be reused, recycled, or properly disposed. Intentional venting of refrigerants is prohibited.
- Waste tires must be stored and disposed in accordance with PA Department of Environmental Protection requirements.

Good housekeeping includes minimizing dust, odors, and oily runoff. Housekeeping also includes the appearance and quantity of wastes stored on site from equipment disposal.

**POLICY**

1. Equipment, tools & supplies no longer of service to the Department shall be assigned to the Department of General Services as surplus unless:
  - a. The equipment has no resale value except as scrap metal, OR
  - b. The integral parts have more value to the Department than the estimated resale proceeds, OR
  - c. The unit is to be traded in for new units.
2. In the case of 1A & 1B above, the equipment shall be dismantled (See Dismantlement). In the case of 1C above, the equipment shall be transferred to the Fleet Management Division.
3. Proceeds from all Department sales shall be augmented to the 124 equipment purchasing account of the Fleet Management Division with the exception of trucks 32,000 GVW or more. Proceeds from the sale of these trucks shall be returned to the owning ORG of the truck in program 711.
4. The procedure note below shall only be used when.
  - a. The Fleet Management Division has approved the ED Notification in Plant Maintenance.
  - b. Total Repairs are less than \$1,500.00
  - c. All vendor repairs have been approved by the Fleet Management Division.
    - i. To charge time and material to a piece removed from inventory/service (in the 789\* functional location in Plant Maintenance), use the generic equipment number of ORG-9999's in the EQUIPMENT NUMBER section and the Auctions-Surplus Equipment Assembly number.

**Preps for Sale of Surplus Equipment: 813-8303-01**

**Transport of Surplus Equipment: 813-8304-01**

- ii. To charge fuel to a piece removed from inventory/service (in the 789\* functional location in Plant Maintenance) at a station, use Fuel Card and enter the Foreman Fueling code ORG (4 digits)-11; when prompted to enter the odometer enter the assembly code of 8303. If over 9.9 gallon pumped an exception report will be generated. Document on exception why the fuel was purchased (auction unit removed from SAP and TRAK), document the equipment # and file. Preps for Sale of Surplus Equipment: 813-8303-01
- iii. NOTE: If a unit was involved in an accident, the unit cannot be disposed of until the accident is settled. When the ED notification is created in Plant Maintenance - the Accident File No. must be noted in the ED Notification. Once the accident is settled the ED can be approved.



## **CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)**

### **6.6 SURPLUS OF UNSERVICEABLE EQUIPMENT, TOOLS & SUPPLIES (Cont'd)**

#### **RESPONSIBILITY (Cont'd)**

#### **RESPONSIBILITY**

##### **COUNTY & DISTRICT EQUIPMENT MANAGER**

- Determine un-serviceability of equipment and initiate recommendation for surplus, dismantlement, or trade-in by completing ED screens (Equipment Disposal or Repair Estimate) (See ED Disposal Types in Plant Maintenance or Plant Maintenance Manual).
- Determine which disposal type should be used for the surplus.
- Complete paperwork required for surplus. (See Surplus Paperwork)
- Once equipment is approved for surplus, ensure that no parts are exchanged or removed for any reason.
- Prepare vehicle for surplus and deliver to sale site. (See Vehicle Prep & Delivery)
- Assure that the storage area is periodically inspected for environmental concerns in accordance with Chapter 20 of the Maintenance Manual, Pub. 23.

##### **DISTRICT EQUIPMENT MANAGER**

- Inspect equipment under consideration and verify information in Plant Maintenance, and surplus paperwork required for surplus.
- Approve/Disapprove recommendation for surplus.
- Forward required paperwork to Fleet Management Division

##### **FLEET MANAGEMENT DIVISION**

- Review ED Notifications and surplus paperwork and approve/disapprove as surplus.
- Forward required documents to Department of General Services.

#### **SURPLUS PROCEDURES**

##### **EQUIPMENT DISPOSAL (ED) TYPES**

Option 1 - **CENTRAL SALE (Currently Keystone/Manheim)** is used for cars, vans, pickup trucks, and crew cabs. Central Sales are conducted through the Department of General Services. These sales are held at locations determined by DGS. Central sales are held approximately every other month. Vehicles need delivered to the sale site.

Option 2 - **FIELD SALE (Sell by Picture) (For Heavy Equipment Auction)** is used for equipment/vehicles that cannot be safely moved or loaded for transport to the Auction site. This equipment will be sold by picture. The units will stay at your location and will be sold by DGS through Central Sales or be sold at one of PennDOT's Heavy Equipment Auctions. All attempts should be made to move the equipment to the Heavy Equipment Auction.

**NOTE:** Sell by picture is not recommended for Central Sale items unless approved by the Fleet Management Division.

Option 9 – **AUCTION (Heavy Equipment)** is used for heavy trucks and highway maintenance equipment and tools. The Fleet Management Division, through DGS, conducts these auctions two times a year at locations throughout the state. Vehicles/Equipment will need delivered to the auction site unless using the Field Sale option.

**CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)****6.6 SURPLUS OF UNSERVICEABLE EQUIPMENT, TOOLS & SUPPLIES (Cont'd)****EQUIPMENT DISPOSAL PROCEDURES**

First, determine what type of ED Disposal process you are using. Then proceed to the correct option below to determine the procedures that need to be followed.

The forms needed are as follows:

1. STD-556 – Used Car Disposition

This form is used for any piece that has a seven (7) digit equipment number, for both Central Sales and Heavy Equipment Sales.

2. STD-551 – Surplus Property Disposition

STD-552 – Green Tag

These 2 forms will be used for all pieces that do not have the seven (7) digit equipment number.  
(Ex: tool numbers, parts, misc pallets, etc)

Form STD-556 and STD-551 are available on the Fleet Management Division Intranet Site and this version is the only one that will be accepted. Form STD-552(green tag) can be ordered from DGS or the District/County storeroom may have them. The number that is on the green tag goes on the STD551 form to identify the unit for auction that does not have an equipment number to refer to.

**Option 1, CENTRAL SALE (*Currently Keystone Auto Auction*)**

For Central Sales, form STD-556 (Used Car Disposition) needs to be used.

These are the steps to follow to fill out the STD 556 for Central Sale. Please be sure to fill in all the information. When you are completing the paperwork, try and be as honest as possible in the description of the vehicle. The more information that is listed, the better informed the buyer will be. List any major repairs that have been done recently and if it has been recently inspected, note when the inspection runs out. On the other end, if there are known defects, note them.

---

DATE:	Date when ED was put into the PLANT MAINTENANCE System
FROM:	Transportation
DEPT REF NUMBER:	Organization Code (0000)
EQUIPMENT NO:	Equipment Number (000-0000)
YEAR MANUFACTURED:	Year of Unit (ex: 1980)
MAKE:	(Chevy, Ford)
MODEL:	(F350, Cavalier)
BODY STYLE:	(Cargo, Crew Cab, Pickup, Sedan)
NO. CYL:	Number of cylinder (4, 6)
CU. IN:	Cu. In (350, if known)
COLOR:	(Yellow, Blue)
MANUFACTURER'S NO:	(VIN #, Serial #)
TYPE OF TRANSMISSION:	(Manual, Auto)
TITLE NO:	(PA Title #)
MILEAGE:	If the vehicle is being driven—**Fill in this in when the vehicle reaches the sale site.** If vehicle is being towed—Fill in now.
EXTERIOR CONDITION:	
KNOWN DEFECTS:	
INTERIOR CONDITION:	
KNOWN DEFECTS:	
ENGINE/SYSTEMS PERFORM:	
KNOWN DEFECTS:	
OVERALL CONDITION:	
REMARKS:	
SALE SITE LOCATION:	<b>Keystone</b>
CONTACT PERSON AT SALE SITE:	Leave Blank

---



**CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)****6.6 SURPLUS OF UNSERVICEABLE EQUIPMENT, TOOLS & SUPPLIES (Cont'd)**

Now that the paperwork is completed, make a copy of the paperwork for your records and one to attach to the driver sidewindow of the vehicle. Attach this copy to the window before it goes to sale. Email the STD-556 to the PD, Equipment mailbox and ensure the ED Notification is in Plant Maintenance. Be sure all Work Orders against the piece(s) are closed out. Be sure to remove all Maintenance Items from Maintenance Plans and all Maintenance Items from the equipment.

Once the original paperwork is received at the Fleet Management Division, the ED Notification will be approved. The vehicle is now ready to be prepared to be sold. Contact the AFS section at the Fleet Management Division to remove this piece from the Automated Fuel System..

**NOTE:** Once the ED Notification is approved by the Fleet Management Division, DO NOT charge to this piece any longer. You will have to follow the instructions on charging a piece after Equipment Disposal on page 6 of this chapter)

Vehicle Preparation

1. Remove all decals. (PennDOT Emblem, Equipment Number, 1-800-FIX-ROAD, etc...)
2. Attach a copy of the STD-556 to the driver side window of the vehicle.
3. Remove or cut off PENNDOT marked mud flaps.
4. Remove fire extinguishers and triangles (if applicable).
5. Remove Buckle Up plates (if applicable).
6. Remove tire chains (if applicable).
7. Remove 2 way radios, fuel ring, data pass and AVL equipment (if applicable).
8. Clean the inside and outside of the vehicle. (wipe dust off the dash, vacuum out the interior, clean the windows, etc.)
9. Grease the vehicle if needed.
10. Place equipment repair history in vehicle if available.
11. Remove the vehicles license plate and the insurance card from the vehicle.
12. Send the license plates to the RPC at the Fleet Management Division.

Vehicle Delivery

Once your vehicle is prepared, you can deliver your vehicle directly to the current central sale site location. Email the **PD, Equipment** mailbox when the unit(s) has been delivered to the sale site.

After the Sale

DGS will forward payment to the Fleet Management Division. The Fleet Management Division will update the Equipment Master (IE02) with the selling price, sale date, and will acknowledge the removal of the equipment, and deletion flag the equipment. This then completes the disposal process.

**Option 2, FIELD SALE (SBP-Sell by Picture) (For Heavy Equipment Auctions)**

For Field Sales of vehicles, form STD-556 (Used Car Disposition) needs to be used.

**NOTE:** If requesting a Sell by Picture for Central Sale (Keystone) you need to get permission from the Fleet Management Division first. We are recommending taking the unit to sale unless there are special circumstances.

These are the steps to fill out your STD 556 for a Field Sale. Please be sure to fill in all the information. When you are completing the paperwork, try and be as honest as possible in the description of the vehicle. The more information that is listed, the better informed the buyer will be. Make sure the reason the defect that requires the vehicle to be sold on site is listed.

**CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)****6.6 SURPLUS OF UNSERVICEABLE EQUIPMENT, TOOLS & SUPPLIES (Cont'd)****Option 2, FIELD SALE (SBP-Sell by Picture) (For Heavy Equipment Auctions) (Cont'd)**

---

DATE:	Date when ED was put into the PLANT MAINTENANCE System
FROM:	Transportation
DEPT REF NUMBER:	Organization Code (0000)
EQUIPMENT NO:	Equipment Number (000-0000)
YEAR MANUFACTURED:	Year of Unit (ex: 1980)
MAKE:	(Chevy, Ford)
MODEL:	(F350, Cavalier)
BODY STYLE:	(Cargo, Crew Cab, Pickup, Sedan)
NO. CYL:	Number of cylinder (4, 6)
CU. IN:	Cu. In (350, if known)
COLOR:	(Yellow, Blue)
MANUFACTURER'S NO:	(VIN #, Serial #)
TYPE OF TRANSMISSION:	(Manual, Auto)
TITLE NO:	(PA Title #)
MILEAGE:	If the vehicle is being driven—**Fill in this in when the vehicle reaches the sale site.** If vehicle is being towed—Fill in now.
EXTERIOR CONDITION:	
KNOWN DEFECTS:	
INTERIOR CONDITION:	
KNOWN DEFECTS:	
ENGINE/SYSTEMS PERFORM:	
KNOWN DEFECTS:	
OVERALL CONDITION:	
REMARKS:	
SALE SITE LOCATION:	<b>Type SBP and the street address where the unit is located and will be viewed and picked up from.</b>
CONTACT PERSON AT SALE SITE:	<b>CEM or DEM and phone # where the unit is being sold from.</b>

---

Now that the paperwork is completed, make a copy of the paperwork for your records and one to attach to the driver side window of the vehicle/equipment. **You also need to take four (4) pictures of the unit.** Email the STD-556 and the four (4) pictures to the **PD, Equipment** mailbox. Be sure that all work orders against the piece(s) are closed out.

Once the original paperwork is received at the Fleet Management Division, the ED Notification will be approved. The vehicle is now ready to be prepared to be sold. Contact the AFS section at the Fleet Management Division to remove this piece from the TRAK system.

**NOTE:** Once the ED Notification is approved by the Fleet Management Division, DO NOT charge to this piece any longer. You will have to follow the instructions on charging a piece after Equipment Disposal on page 8 of this chapter)

**Vehicle Preparation**

1. Remove all decals. (PennDOT Emblem, Equipment Number, 1-800-FIX-ROAD)
  2. Attach a copy of the STD-556 to the driver side window of the vehicle.
  3. Remove or cut off PENNDOT marked mud flaps.
  4. Remove fire extinguishers and triangles (if applicable).
  5. Remove Buckle Up plates (if applicable).
  6. Remove tire chains (if applicable).
  7. Remove 2 way radios, fuel ring, data pass and AVL equipment (if applicable).
  8. Clean the inside and outside of the vehicle. (wipe dust off the dash, vacuum out the interior, clean the windows, etc.)
  9. Grease the vehicle if needed.
  10. Place equipment repair history in vehicle if available.
-

**CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)****6.6 SURPLUS OF UNSERVICEABLE EQUIPMENT, TOOLS & SUPPLIES (Cont'd)**

11. Remove the vehicles license plate and the insurance card from the vehicle.
12. Send the license plates to the RPC at the Fleet Management Division.

After the Sale

DGS will forward payment to the Fleet Management Division. The Fleet Management Division will update the Equipment Master (IE02) with the selling price and sale date. You will be contacted by the buyer to set up a time for them to pick up the equipment. When they arrive, they will have a receipt to showing payment. They can then remove the vehicle from your location. **Once the vehicle is removed, it is your responsibility to acknowledge the piece of equipment has been removed; by checking the 'A' Acknowledged box on the Equipment Master (IE02) screen.** The Fleet Management Division will then Deletion Flag the unit; this then completes the disposal process.

**Option 9, AUCTION (Tools, Misc Pallets, Etc – NOTE: Anything without the seven (7) digit equipment number)**

Tools, Misc Pallets, etc; will be put in the Heavy Equipment Auctions. They will be sold in the DGS monthly sales. We will accept STD-551's and 2 pictures anytime throughout the year. These items will also be sold by picture at the District or County location.

Use form STD-551 (Surplus Property Disposition) and STD-552 (Green Tag).

Before, completing the steps to delete this item; you will need to contact the Fleet Management Division to get clearance to delete the Tool; there may be outstanding charges not yet posted to the tool(s). Once clearance is sent back you can then complete the disposal process for the tool(s).

These are the steps to fill out your STD 551 for Auction. Please be sure to fill in all the information. When you are completing the paperwork, try and be as honest as possible in the description of the vehicle. The more information that is listed, the better informed the buyer will be. List any major repairs that have been done recently and if it has been recently inspected, note when the inspection runs out. On the other end, if there are known defects, note them.

- 
1. Leave Blank
  2. Tag #--(Green Tag #)
  3. Date when ED was put into the PLANT MAINTENANCE System
  4. Agency Name: Transportation, ORG Code, Street Address, City, State, Zip
  5. Mark Surplus
  6. Leave Blank
  7. Date Acquired (off of Equipment Master screen), Blank if unknown
  8. Item, Equipment # (Loader, 000-0000) Item, Tool # (Wrench, 000)
  9. Description of Item
  10. Quantity
  11. Manufacturer
  12. Model #
  13. Serial #
  14. Color
  15. Mark Yes/No
  16. Mark Yes/No (Mark yes if purchase price was more than \$25,000)
  17. Original Cost
  18. Leave Blank
  19. Choose only one
  20. Choose one if applicable
  21. Description of Item, What Auction you wan the item to go to.
  22. Same Street Address as # 4
  23. Hours available for viewing at your location
  24. Leave Blank
  25. CEM's or DEM's Name (whoever fills out the form)
  26. CEM's or DEM's Phone Number (whoever fills out the form) Fax-Optional, Email-Optional

## **CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)**

### **6.6 SURPLUS OF UNSERVICEABLE EQUIPMENT, TOOLS & SUPPLIES (Cont'd)**

Make a copy of the paperwork for your records and one to attach to the item being sold. You will need to take two (2) pictures of the item(s) to be sold. Email the STD-551 and two pictures to the **PD, Equipment** mailbox.

Once the paperwork is received at the Fleet Management Division, it is up to the District Equipment Manager to 789\*, make Inactive and Deletion Flag the Tool.

**NOTE:** The Fleet Management Division does not approve these ED Notifications.

#### **Unit Preparation**

1. Remove all decals. (PennDOT Emblem, Equipment Number, 1-800-FIX-ROAD, etc...)
2. Attach a copy of the STD-551 & STD-552 (green tag) to unit or skid.

#### **Unit Delivery**

Once item(s) are prepared for auction they can be delivered to the auction site. The Fleet Management Division will set up delivery dates before each auction.

#### **After the Sale**

DGS will forward payment to the Fleet Management Division. This then completes the disposal process.

**CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)****6.6 SURPLUS OF UNSERVICEABLE EQUIPMENT, TOOLS & SUPPLIES (Cont'd)****Option 9, Auction - Heavy Trucks & Equipment –****NOTE:** Equipment with the seven (7) digit Equipment Number

For Auctions of heavy trucks and equipment, form STD-556 (Used Car Disposition) is needed and four (4) pictures. These are the steps to fill out your STD 556. Please be sure to fill in all the information. When you are completing the paperwork, try and be as honest as possible in the description of the vehicle. The more information that is listed, the better informed the buyer will be. List any major repairs that have been done recently and if it has been recently inspected, note when the inspection runs out. On the other end, if there are known defects, note them. If the unit has attachments, you must list the attachments in the Equipment No. field along with the main unit. Ex: Dump truck has a wing plow and spreader. List the truck's number; spreader; wing plow in Equipment No. field provided. Do not send separate STD556 for the wing and spreader.

---

DATE:	Date when ED was put into the PLANT MAINTENANCE System
FROM:	Transportation
DEPT REF NUMBER:	Organization Code (0000)
EQUIPMENT NO:	Equipment Number (000-0000)
YEAR MANUFACTURED:	Year of Unit (ex: 1980)
MAKE:	(Chevy, Ford)
MODEL:	(F350, Cavalier)
BODY STYLE:	(Cargo, Crew Cab, Pickup, Sedan)
NO. CYL:	Number of cylinder (4, 6)
CU. IN:	Cu. In (350, if known)
COLOR:	(Yellow, Blue)
MANUFACTURER'S NO:	(VIN #, Serial #)
TYPE OF TRANSMISSION:	(Manual, Auto)
TITLE NO:	(PA Title #)
MILEAGE:	If the vehicle is being driven—**Fill in this in when the vehicle reaches the sale site.** If vehicle is being towed—Fill in now.
EXTERIOR CONDITION:	
KNOWN DEFECTS:	
INTERIOR CONDITION:	
KNOWN DEFECTS:	
ENGINE/SYSTEMS PERFORM:	
KNOWN DEFECTS:	
OVERALL CONDITION:	
REMARKS:	
SALE SITE LOCATION:	The location / address of the sale.
CONTACT PERSON AT SALE SITE:	CEM or DEM and phone # where the unit is being sold from.

---

Now that the paperwork is completed, make a copy of the paperwork for your records and one to attach to the driver side window of the vehicle. Attach this copy to the window before it goes to sale. You will need four (4) pictures to take of the unit; we recommend front, rear, right side and left side. Email the STD-556 and four (4) pictures to the **PD, Equipment** mailbox. At this time make sure all Work Orders are closed out against the unit. Be sure to remove all Maintenance Items and Maintenance Plans from the equipment.

Once the original paperwork is received at the Fleet Management Division, the ED Notification will be approved. Once the ED Notification is approved, the vehicle can be prepared for the auction. The Fleet Management Division will put the unit into 789\* Functional Location. The unit will go into "Inactive" status only if there are no pending charges against the piece of equipment. Once all charges have cleared it can then go into "Inactive" status. (Note: if unit is put into 789\* functional location; it is considered out of inventory/service). Contact the AFS section at the Fleet Management Division to remove this piece from the Automated Fuel System.

**NOTE:** Once the ED Notification is approved by the Fleet Management Division, DO NOT charge to this piece any longer. You will have to follow the instructions on charging a piece after Equipment Disposal on page 6 of this chapter.

---

## **CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)**

### **6.6 SURPLUS OF UNSERVICEABLE EQUIPMENT, TOOLS & SUPPLIES (Cont'd)**

#### Unit Preparation

Since the ED Notification is approved, you can now prepare the vehicle to go to the sale. It is important that all the following preparations are made to the vehicle.

1. Remove all decals. (PennDOT Emblem, Equipment Number, 1-800-FIX-ROAD)
2. Attach a copy of the STD-556 to the driver side window of the vehicle.
3. Remove or cut off PENNDOT marked mud flaps.
4. Remove fire extinguishers and triangles (if applicable).
5. Remove Buckle Up plates (if applicable).
6. Remove tire chains (if applicable).
7. Remove 2 way radios and AVL equipment (if applicable).
8. Clean the inside and outside of the vehicle. (wipe dust off the dash, vacuum out the interior, clean the windows, etc.)
9. Grease the vehicle if needed.
10. Place equipment repair history in vehicle if available.
11. Remove the vehicles license plate and the insurance card from the vehicle.
12. Send the license plates to the RPC at the Fleet Management Division.

#### Unit Delivery

Once your vehicle is prepared, you can deliver your vehicle to auction site. The Fleet Management Division will set up delivery dates before each auction.

#### After the Sale

DGS will forward payment to the Fleet Management Division. The Fleet Management Division will update the Equipment Master screen (IE02) with the selling price, sale date, and will acknowledge the removal of the equipment and set the deletion flag for the unit. This then completes the disposal process.

### **6.7 THEFT/VANDALISM**

When a case of theft or vandalism of department equipment occurs, call the State Police. Fill out V0 notification in Plant Maintenance. State Police will then return their investigation report to you, which should be kept on file. Input the police report number in the V0 notification. The police report can be attached to the notification. It is not mandatory as long as the police report number is listed in the notification.

When a case of theft or vandalism of Department equipment, tools, material, etc. occurs, contact the Pennsylvania State Police and/or Capitol Police in writing or by e-mail and request they conduct a formal investigation. Fill out the V0 screen in Plant Maintenance. Request that the State Police and/or Capitol Police provide a copy of the investigation report to you. This report must be kept on file for seven years.

In the event that the State Police and/or Capitol Police are unable or unwilling to investigate the theft or loss incident and/or provide a copy of the investigative report, you shall complete the OS-816 form to file stating all relevant information. This memo should be kept on file for seven years.

### **6.8 EQUIPMENT MODIFICATIONS AND EQUIPMENT CLASS CODE CHANGES**

#### **EQUIPMENT MODIFICATIONS**

County Equipment Managers are responsible for controlling the modification of equipment.

Any modification to a piece of equipment beyond its originally delivered configuration must be evaluated by the District Equipment Manager. The Chief of the Fleet Management Division must approve any modification deemed necessary by the District Equipment Manager. All modifications that affect the safety, warranty or Fleet Management Division Class

**CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)****6.8 EQUIPMENT MODIFICATIONS AND EQUIPMENT CLASS CODE CHANGES (Cont'd)**

Code (ECC) must be approved by the Chief of the Fleet Management Division prior to the start of any work leading to the modification. Failure to obtain prior approval before completion of the modification will result in a denied request for ECC change. The following procedure shall be used to gain approval for modifications and Equipment Class Code (ECC) changes.

NOTE: A separate M8 notification must be completed for each unit to be modified. Example: if an extra spreader light is being added to the rear of a few dump trucks, a separate notification must be created for each of the dump trucks being modified.

**REQUEST FOR ECC CHANGE**

County Equipment Manager . . . . . Prepares the M8 Notification in Plant Maintenance (Modification Request) for the District Equipment Manager's approval. Be very specific in the text explaining what is being done for the modification. If you are replacing a unit reference the old unit equipment number. The more information the better.

District Equipment Manager. . . . . Receives report requesting equipment modification. Reviews the M8 Notification and approves or rejects the request(s). Determines if modification requires approval of the Chief of the Fleet Management Division (mandatory for modification that affects the safety, warranty or ECC).

Chief, Fleet Management Division . . . . Receives report of M8 Notifications requesting equipment modification. Reviews M8 notification and approves or rejects the request(s).

County Equipment Manager . . . . . Performs modification when approved.

Acknowledges the completion of the modification on the M8 notification.

RPC, Fleet Management Division . . . . Once notification is Acknowledged the ECC will then be changed (if necessary).

**SPECIAL NOTE:** Any modification or non-OEM part use is prohibited on all liquid asphalt application equipment.

**6.9 VEHICLE REGISTRATIONS**

All requests for registration plates, cards and/or title corrections are to be sent via email to the Fleet Management Division ONLY TO: **PD, EQUIPMENT**, making certain that the originating District completes the proper forms. The originating District must use the below referenced PennDOT specific forms only.

Use of forms is as follows:

MV-44 Lost or stolen registration cards/plates. (This must be submitted via email to PD, EQUIPMENT mailbox)

MV-41 Correction of manufacturer's vehicle identification number (serial number); State police must verify the serial number.

PENNDOT specific forms may be obtained by going to the Fleet Management Division Intranet Site @ <http://dot.state.pa.us/PennDOT/bureaus/intranet/BOMOintra.nsf/homeED> and clicking on publications.

**REGISTRATION PLATES**

License plates must be installed on equipment as follows:

- A. All Equipment considered Passenger Vehicles (ECC'd as G units; EX: Sedans, Vans, SUVs, Pickups-no matter the color) will get issued 1 official use plate, which will be mounted on the rear of the vehicle.



**CHAPTER 6: EQUIPMENT REPAIRS / MODIFICATIONS / REPLACEMENT & DISPOSAL (Cont'd)****6.9 VEHICLE REGISTRATIONS (Cont'd)**

- B. All Equipment other than Passenger Vehicles (ex: Dump Trucks, Paint Trucks, Loaders, Graders, etc.) will get 1 official use plate. This plate will be mounted on the back of the unit with exception to the Lowboy Tractor Trucks which will have the plate mounted on the front.

**Emission Changes on Registration Cards**

- When a passenger vehicle is transferred from a County to another County, the emissions requirement may change. Email PD, Equipment giving the Equipment Number of the unit and where the unit is now located. A new registration card will be issued and sent to the County.

To save the Department money the license plates that are in good condition will be reused as license plate requests come into the Fleet Management Division. When units go to auction the license plates that are in good condition are to be mailed into the Fleet Management Division. The plates will then be transferred as license plate requests come in.

**Below is a list of what equipment needs titled and what equipment does not.**

**EQUIPMENT TITLED AS SME'S - TITLED**

(Have license plates; No PA State Inspection required)

- |                                 |                 |
|---------------------------------|-----------------|
| • EXCAVATORS                    | • GRADERS       |
| • LOADERS                       | • BELT LOADERS  |
| • BACKHOES                      | • SWEEPER TRUCK |
| • TRUCK MOUNTED POTHOLE PATCHER | • TOW PLOW      |

**EQUIPMENT TO REMAIN AS TRAILERS - TITLED**

(Have license plates; Required to be PA State Inspected)

- |                                    |                  |
|------------------------------------|------------------|
| • FLAT BED TRAILER (over 3,000lbs) | • LOWBOY TRAILER |
| • FALLING WT. DEFLECTOMETER        | • SKID TESTER    |

**CERTIFICATES OF ORIGIN NEEDED - NOT TITLED**

(No license plates; no PA State Inspection)

- |                           |                             |
|---------------------------|-----------------------------|
| • AERIAL LIFTS/SIGN       | • FLOOD LIGHTS              |
| • PORTABLE TRAFFIC SIGNAL | • SST ATTENUATORS (TRAILER) |
| • ARROWBOARDS             | • MESSAGE BOARDS            |
| • WOOD CHIPPERS           | • AIR COMPRESSORS           |
| • OIL DISTRIBUTORS TOWED  | • SOIL DRILLS               |
| • PIPE FLUSHERS           | • POTHOLE PATCHERS          |
| • KETTLES                 | • MOWERS                    |
| • HAY MULCHER             | • ROLLERS                   |
| • SWEEPERS                | • ASPHALT REHEATERS         |
| • WATER PUMPS             | • WIDNERS                   |
| • STONE CHIPPERS          | • LITTER PICKER             |



## **CHAPTER 7: MISCELLANEOUS POLICIES**

### **7.1 DISSEMINATION OF TECHNICAL INFORMATION**

In order to satisfy a continuing requirement to disseminate technical information, a series of notices have been developed. See list below.

- Technical Bulletin
- Lube and Component Sheets
- Equipment Information Bulletin
- Warranty Bulletin
- Equipment Radio Bulletin
- Training Bulletins

Technical and Information Bulletins are to be filed in a location where they are available to the mechanics as needed. Other bulletins and reports should be filed in an appropriate location, usually the garage office, available to employees.

#### **Description:**

1. **Technical Bulletin:** Deals exclusively with technical information relative to equipment repairs or modifications. The technical bulletin is an action notice.
2. **Lube and Component Sheets:** In order to assist the field in keeping abreast of the latest industry requirements and provide the Districts and Counties with the latest Department policies as they relate to engines, transmissions, differentials, hydraulic oils, and greases to be used on Department equipment, a Lube and Component Sheet shall be issued to the field for all equipment requiring P.M. servicing. The only exceptions will be small quantity orders of non-critical, low cost units, or if a vendor supplied website offers the same information.

The Lube and Component Sheet format consolidates the lubrication information for the specified equipment onto one sheet for easier reference. Also included is the filter information for the equipment including commodity codes for any filters stocked in the Fleet Management Division storeroom.

**NOTE:** "Department policy requires that materials available through central warehouses not be procured from outside sources".

In addition, no reimbursement is required for parts received from the Fleet Management Division storeroom, and the cost per item to the Department is considerably less due to bulk purchasing.

3. **Equipment Information Bulletin:** This bulletin is issued on an "as needed" basis. The purpose of the bulletin is to disseminate general information to the field in such areas as:
  - New products
  - Repair parts
  - Time saving methods
  - Innovations
  - Best Practices
4. **Warranty Bulletin:** This bulletin is issued on an "as needed" basis. The purpose of the bulletin is to disseminate warranty information for:
  - Equipment
  - Equipment parts
5. **Radio Bulletin:** Provides specific information about various issues maintenance organizations encounter concerning Department Radio Systems and provides a means of communication to share this information.

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.1 DISSEMINATION OF TECHNICAL INFORMATION (Cont'd)**

6. **Training Bulletins:** This bulletin is issued on an "as needed" basis. The purpose of the bulletin is to disseminate training information for:

- Equipment
- Equipment Operators
- Mechanics

**Note:** all bulletins are located on the BOMO website, under Fleet Management Division, Info/Radio/Technical/Training/Warranty.

### **7.2 HOUR METERS/BROKEN SPEEDOMETERS**

All equipment with a fuel tank capacity of 5 gallons or greater will be equipped with an operable hour meter. Automobiles need only to have a speedometer, as they are serviced by mileage. All inoperable hour meters and odometers shall be repaired in a timely manner. Equipment with defective speedometers will be repaired immediately except under emergency conditions.

If an odometer is replaced you must go into Plant Maintenance on the IE02 equipment master and on the Vehicle ID/Measmnts tab complete the Replacement data information.

### **7.3 BACK-UP ALARMS**

Selected Department vehicles and equipment are provided with back-up alarms for the protection of our employees.

Under no circumstance will a vehicle or piece of equipment having a non-functional back-up alarm installed and operated unless the vehicle is being transported to the shop to repair the alarm.

Failure to comply with this instruction will subject the operator, their supervisor and all others responsible to appropriate disciplinary action which may include dismissal.

### **7.4 USE OF UNAUTHORIZED EQUIPMENT**

Only motorized equipment owned or leased by the Department shall be used in Pennsylvania Department of Transportation operations. The use of personally owned equipment such as push mowers, riding mowers, chain saws, etc. is strictly prohibited.

### **7.5 TRAMMING OF EQUIPMENT**

To move construction equipment over the highway under its own power the following **MUST** be considered:

- Total distance and terrain involved (this must be a reasonable distance).
- Type of equipment, i.e., direct drive transmission unit could be trammed further without a cool down period than a unit with a torque converter type transmission.
- Check operator manual guidelines on movements.
- Type of highway system to be utilized.
- Amount of time available to make move.
- Availability of Lowboy to make move.
- ABOVE ALL - Safety of equipment plus motorists using highway.

It is almost impossible to make a policy on this subject that covers all equipment. The Equipment Manager in charge must make their decision based on all factors available, after determining the limitations of the equipment to be trammed.

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.6 EMERGENCY INSTRUCTIONS - DEPARTMENT AUTOMOBILES**

#### **ACCIDENTS**

1. Seek medical attention for injured persons.
2. Call State or Local Police. Out-of-state, call local police.
3. Obtain information required on Form STD-541. Copies are in the glove compartment.
4. If there is a serious injury or fatality or property damage over \$10,000 call the Bureau of Risk and Insurance Management, Department of General Services at (717) 787-1768. After hours call the Capitol Police at (717) 787-3199.
5. Employee must complete form P-6175.
6. Within 48 hours, submit form STD-541 (an original and three copies).
7. If police do not investigate, submit form AA-600, Traffic Accident Report, to the Bureau of Safety Programming and Analysis within five (5) days.

#### **BREAKDOWNS**

##### **Minor:**

1. Remove vehicle from traffic and secure it.
2. Call your supervisor.
3. Out-of-Pocket payment for minor, emergency repairs such as a flat tire, fan belt, radiator or heater hose, etc., can be made without authorization on an expense voucher. A paid receipt must be obtained and the money will be reimbursed on form C-62S

##### **Major:**

1. During working hours...
  - a. Remove vehicle from traffic and secure it.
  - b. Call your supervisor.
  - c. Call Equipment Manager at nearest County Office for assistance (see Pub 22 for locations and telephone numbers).
  - d. The Equipment Manager will make necessary repair arrangements and aid you in finding transportation to your destination.
2. After working hours...
  - a. Remove vehicle from traffic and secure it.
  - b. Call your supervisor who may authorize repairs by phone.
  - c. Obtain receipts for all necessary out-of-pocket expenses such as: towing, storage, authorized repairs, emergency lodgings, emergency transportation. Claim reimbursement on form C-62S (expense voucher).

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.6 EMERGENCY INSTRUCTIONS - DEPARTMENT AUTOMOBILES (Cont'd)**

#### **OUT-OF-GAS**

1. Use your Fuel Card.
2. Out-of-pocket emergency gas purchase will be reimbursed if your Fuel Card has been lost or if a retail station would not accept the Fuel Card.
3. Receipts must be obtained for reimbursement on form C-62S (expense voucher).

### **7.7 RE-CAP TIRE'S**

**Purpose:** This Policy, establishes a means to identify, select, grade, recondition, and return to service, used tires throughout the Department. The Safety of Department Work Force and Equipment shall be held in the highest regard.

**Objective:** The objective of this policy is to return tire casings to service. The re-cycling process will provide significant cost saving's, with no loss of quality or impact on safety. This policy only applies to dump trucks with a GVWR of 26,000 lbs or greater.

**Policy:** Steering Axle's: . . . . . Dump trucks 26,000 lbs GVWR and Greater  
Use of re-cap tires on steering axles is voluntary.

**NOTE:** Recapped tires are not permitted to be installed on the steering axle of any fuel truck.

Non-Steering Axles: . . . Dump Trucks 26,000 lbs GVWR and Greater  
100% of tire casings qualifying for reconditioning, shall be recycled and returned to service. The casing shall be re-capped until it is mutually agreed, by the Department and the Vendor to be no longer re-useable.

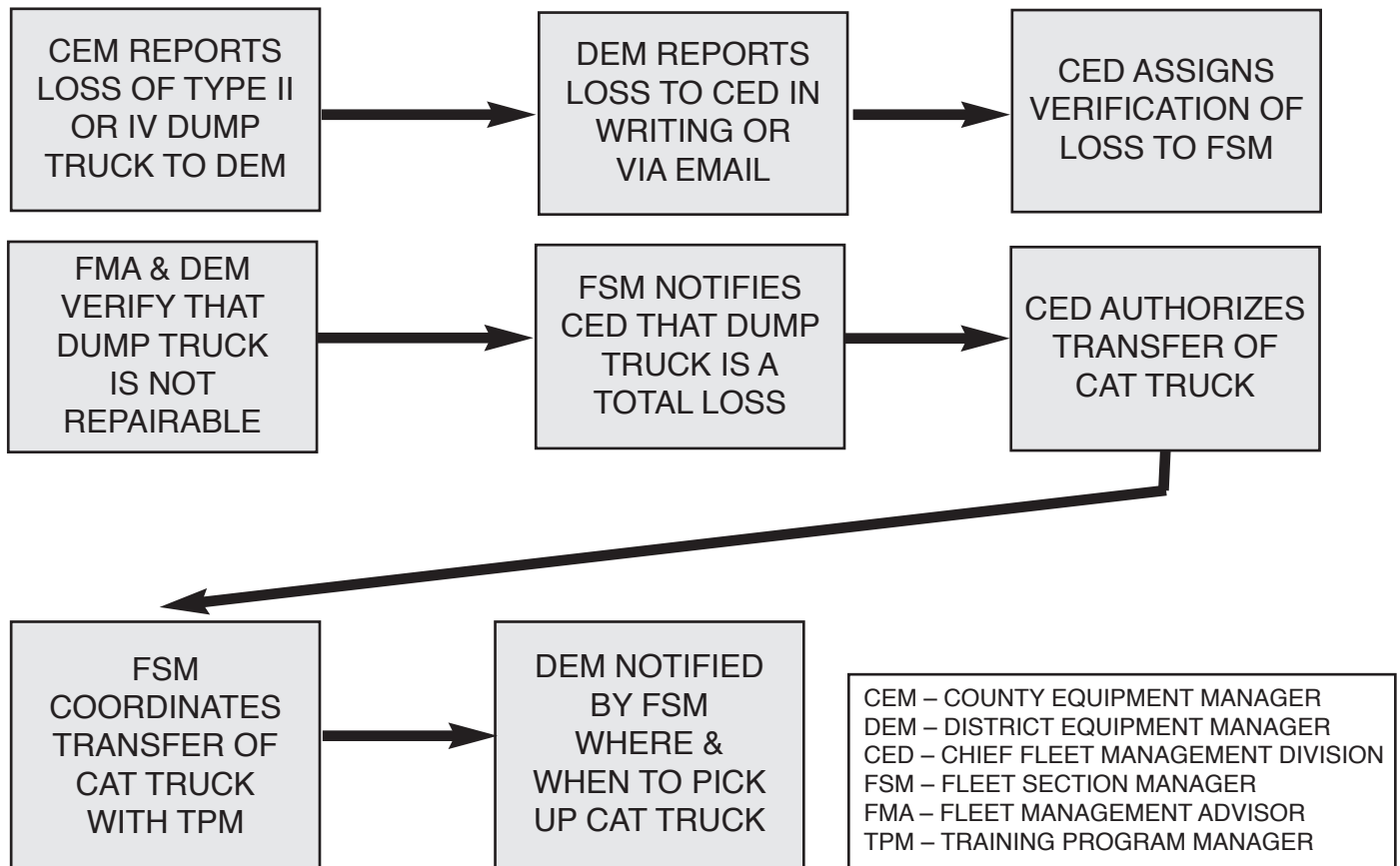
**Procedures:** Utilizing the current Department of General Services, Re-cap Tire contract, each District/County Organization, shall establish contact with a vendor of its choice, and begin to recycle used casings. As tires are removed from service they shall be marked for identification, delivered for examination, and either recycled and retreaded or rejected and disposed of via contract terms.

Each tire shall be accounted for individually, and by equipment type, throughout the process, for inventory purposes, by Department personnel, using established commodity codes and procurement guidelines.

**Responsibilities:** The Fleet Management Division, in conjunction with District personnel shall monitor, and assist with compliance of this policy. This policy shall be re-evaluated annually by the Fleet Optimization Task Force.

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****7.8 CATASTROPHIC DUMP TRUCK LOSS POLICY (October 9, 2001)**

- The Fleet Management Division will purchase 4 Tandem Axle (Type IV) Dump Trucks to be available as CAT Trucks.
- CAT Trucks will have aluminum bodies and manual transmissions.
- Two CAT Trucks will have right hand wing plows.
- Two CAT Trucks will be housed at W.P.T.A. and two will be housed at E.P.T.F.
- CAT Trucks will be utilized for Equipment Operator training at E.P.T.F. and W.P.T.A. until needed.
- If CAT Truck is one year old or less, organization will remunerate Fleet Management Division for full purchase price of the dump truck.
- If CAT Truck is greater than one year old, organization will remunerate Fleet Management Division for full purchase price minus depreciation amount as defined in Plant Maintenance.
- Organization must remunerate Fleet Management Division as soon as possible, but no later than beginning of next Capital Equipment Budget fiscal year.
- The Fleet Management Division will endeavor to have four CAT Trucks available, however, this will be dependent on budget availability and time it takes to receive remuneration from organizations receiving CAT truck.
- CAT Trucks can be utilized to replace either a Type II or IV dump truck that was lost by accident, fire, theft or act-of-God. Unit must be a total loss and not economically feasible to be repaired.

**PROCESS FOR SECURING CAT TRUCK**

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****7.9 EQUIPMENT SECURITY POLICY**

Each security threat is a unique situation. Central Office will issue, if necessary, further guidance based on the current threat level and knowledge of any specific threat.

When gray areas exist, each District/County shall use its discretion in determining the criteria for storing and providing appropriate security for the equipment under their responsibility. When exercising this discretion, an assessment of the vulnerability or threat, versus the costs and benefits must be made.

**The following minimum requirements shall be used for storing equipment.**

**Normal Operations**

1. A physical inventory of equipment assigned to each organization shall be completed monthly.
2. **At the end of each workday, all equipment is to be locked and the keys removed.**
  - a. **Keys are to be stored in a secure location that is accessible to the supervisor and at least one other person. Operators of equipment that displays both a front and rear license plate are to ensure daily that these plates are in place.**
  - b. **Personnel assigned pool vehicles are to be notified of the requirement that it be locked and the keys removed when not in use.**
3. Equipment shall be locked and the keys removed if the equipment is to be left unattended in an area accessible to the public for a prolonged period of time.
4. Equipment that cannot be locked shall be secured as per guidance provided by the Fleet Management Division.
5. Equipment such as the foreman's crew cab or vehicles that are assigned to a specific individual, shall be locked and the keys removed when parked at a residence, hotel, training site, etc.
6. Missing equipment shall be reported to the Capitol Police and/or the Pennsylvania State Police and local police immediately. The Fleet Management Division should also be notified as soon as possible with pertinent information.
  - a. Also, a message concerning the circumstances of all missing equipment and subsequent recover, if applicable, shall be sent to the Director, Bureau of Maintenance and Operations.
7. Equipment stored at the jobsite or at a facility that is easily accessible, is to be checked for tampering, to the extent of the operators knowledge, prior to operating.

**Elevated Threat Alert**

1. Continue with all the requirements stated above.
2. Unless specifically directed by Central Office, the District Office or the County Manager, all equipment is to be stored where it has been assigned regardless of the availability of fencing and gates except:
  - a. Equipment used to transport hazardous materials must be stored at a fenced and gated facility.
  - b. Does not include the foreman's trucks that have a diesel fuel tank for refueling non-over-the-road equipment.
3. A physical inventory of all equipment must be completed daily.
4. Equipment that may be needed for emergency response shall be fueled at the end of the work day.

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.9 EQUIPMENT SECURITY POLICY (Cont'd)**

#### **Imminent Threat Alert**

Please keep in mind the following requirements will be maintained for the minimum amount of time possible based on the threat.

1. Continue with all the requirements stated above.
2. All over the road equipment is to be stored at a fenced and locked facility when not in use.
3. All over the road equipment is to be locked and the keys removed during times when the operator is not actively using the equipment.
4. Equipment that may be needed for emergency response shall be fueled at the end of the work day.

### **7.10 SHADOW VEHICLE SAFETY SEAT AND HARNESS MINIMUM REQUIREMENTS**

Through coordination with the Bureau of Human Resources, Safety Division, and Bureau of Highway Safety and Traffic Engineering, it has been determined that the existing department trucks equipped with factory lockable high back seats and three point safety harness meet all Federal requirements for seats and harnessing in trucks with a 26,000 pound GVW and over. Therefore, seats and harnesses do not need to be replaced when a dump truck is converted to a shadow vehicle.

### **7.11 EQUIPMENT MAINTENANCE CALENDAR**

#### **JANUARY**

##### **DISTRICT EQUIPMENT MANAGER**

- Schedule Garage Policies and Procedures Compliance Review for designated Counties *Garage Policies and Procedures Compliance Review*
- Purge office reports and update all files *Records Management Manual*
- Monitor and support Counties seasonal equipment repair program
- Review "Cost Versus Usage" report (monthly) *Business Warehouse Report*
- Review "Equipment Not Meeting Minimum Usage Standards" report Equipment Fleet Model, Plant Maintenance
- Review ORG-7777's and ORG-9999's charges (monthly) *IW38 Screen and Business Warehouse Report*
- Review warranty claims to ensure they are entered on a defective equipment report (monthly) *Equipment Maintenance & Management Policies Manual Section 1.7*

##### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Submit finalized operator training plan to District Equipment Manager & Technical Training Coordinator *Equipment Maintenance & Management Policies Manual Chapter 8*
- Coordinate operator & mechanic training as requested by Counties *Chapter 8*
- Communicate any County garage concerns to District Equipment Manager
- Purge office reports and update all files *Records Management Manual*
- Monitor and support Counties seasonal equipment repair program

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.11 EQUIPMENT MAINTENANCE CALENDAR (Cont'd)**

#### **JANUARY (Cont'd)**

- Conduct equipment operator certifications as directed by the District Equipment Manager (monthly) Equipment Maintenance & Management Policies Manual Chapter 8
- Update equipment files (Information & Technical Bulletins, etc.) (monthly) Equipment Maintenance & Management Policies Manual section 4.1
- Review warranty claims to ensure they are entered on a defective equipment report (monthly) Equipment Maintenance & Management Policies Manual Section 1.7
- Review ORG-7777's and ORG-9999's charges (monthly) IW38 and Business Warehouse Report

#### **COUNTY MAINTENANCE MANAGER**

- Support seasonal equipment repair program
- Review the county 124 equipment budget to ensure that all requested equipment is funded.
- Assure that the county training needs have been submitted to the District Office staff Equipment Maintenance & Management Policies Manual Chapter 8
- Review "Equipment Not Meeting Minimum Usage Standards" report Equipment Fleet Model, Plant Maintenance
- Ensure that operators have required training (hazmat, liquid asphalt, etc.)

#### **COUNTY EQUIPMENT MANAGER**

- Plan and supervise ongoing seasonal equipment repair program
- Conduct one review of a stockpile site for compliance with environmental regulations and facility management plans (monthly) Model Stockpile Manual
- Develop annual goals for equipment painting
- Monitor PM Program and ensure repairs are completed (monthly) Equipment Maintenance & Management Policies Manual Chapter 4
- Review "Cost Versus Usage" report (monthly) Business Warehouse
- Update the Shop Productivity Index measures report (monthly) SPI Policy Letter
- Review warranty claims to ensure they are entered on a defective equipment report (monthly) Equipment Maintenance & Management Policies Manual Section 1.7
- Review open work orders on Plant Maintenance Reports
- Purge office reports and update all files Records Management Manual
- Ensure all 813 purchases are entered in Plant Maintenance (review previous quarter) Equipment Maintenance & Management Policies Manual Section 6.2
- Review "Equipment Note Meeting Minimum Usage Standards" report Equipment Fleet Model, Plant Maintenance
- Review ORG-7777's and ORG-9999's charges IW38 and Business Warehouse (monthly)
- Conduct review of M-824 form to ensure the form is properly completed. (monthly)



## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.11 EQUIPMENT MAINTENANCE CALENDAR (Cont'd)**

#### **FEBRUARY**

##### **DISTRICT EQUIPMENT MANAGER**

- Review District wide rented equipment needs versus utilization. Establish target dates (summer, winter, flashing lights)
- Review established equipment quotas with County Equipment Managers
- Conduct P.M.Q.A. in designated County
- Monitor seasonal rebuild status (ongoing)
- Submit letter to Counties late February tasking them with March GSIS Inventory

##### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Conduct P.M.Q.A. review in designated County
- Perform unannounced stockyard inspections of equipment (loaders, graders) results to District Equipment Manager
- Conduct dark-hour training as requested by District Equipment Manager

##### **COUNTY MAINTENANCE MANAGER**

- Ensure that seasonal rebuilds are on schedule
- Review County Equipment Manager's plan for equipment painting

##### **COUNTY EQUIPMENT MANAGER**

- Continue aggressive seasonal rebuild program
- Monthly review of stockpile sites for compliance with environmental regulations and facility management plans
- Present equipment painting goals to County Maintenance Manager for approval
- Monitor PM Program and post PM repairs

#### **MARCH**

##### **DISTRICT EQUIPMENT MANAGER**

- Monitor Counties to ensure completion of GSIS Inventory by March 31 with written submission to District Office
- Ensure completion of all winter seasonal rebuilds by March 15
- Prepare for April Meeting on rented equipment needs for following year, with Maintenance Manager and County Equipment Managers
- Review capitol equipment submissions for following fiscal year with Chief of Fleet Management Division
- Determine quantities and special provisions for equipment and garage service contracts
- Review MECHTECH training needs
- Prepare and issue the Annual Equipment and Radio Inventory
- Review utilization of equipment and make recommendations for fleet reduction

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.11 EQUIPMENT MAINTENANCE CALENDAR (Cont'd)**

#### **MARCH (Cont'd)**

- Conduct P.M.Q.A. in designated County
- Compile all Fleet Quota change requests within the District for the current fiscal year

#### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Work aggressively to ensure completion of all winter seasonal rebuilds by March 15
- Assist County Equipment Managers, if necessary with GSIS Inventory
- Submit to District Equipment Manager Rented Equipment Utilization Report from prior year
- Conduct PMQA review in designated County.

#### **COUNTY MAINTENANCE MANAGER**

- Review seasonal rebuild program with County Equipment Manager to ensure completion by March 15
- Discuss with Assistant's rental equipment needs for next letting schedule (meeting to follow with District Equipment Manager in April)
- Monitor progress of garage and shop tool inventory with County Equipment Manager for written submission to District by May 15

#### **COUNTY EQUIPMENT MANAGER**

- Finalize all winter seasonal rebuilds by March 15
- Submit finalized garage and shop tool inventory to District by May 15
- Monitor PM Program and post PM repairs
- Conduct monthly review of stockpile sites for compliance with environmental regulations and facility management plans
- Prepare for annual equipment inventory

## **APRIL**

#### **DISTRICT EQUIPMENT MANAGER**

- The Annual Equipment and Radio Inventories due back to Fleet Management Division this month (date will be in the original letter to the field)
- Meet with County Equipment Managers and Maintenance Managers to determine rental equipment needs list for next letting schedule
- Compile fiscal year P.M.Q.A. average by County and submit score to Maintenance Managers with recommendations for improvement
- Conduct County Equipment Manager's Meeting to discuss findings at District Equipment Manager's Meeting
- Submit finalized GSIS Inventories to Fleet Management Division with cover letter
- Coordinate with Counties to drain, flush and refill all manual transmissions and differentials

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.11 EQUIPMENT MAINTENANCE CALENDAR (Cont'd)**

#### **APRIL (Cont'd)**

- Ensure that the verification process has been performed on all oil distributors and stone chippers.
- Ensure all Application for Change Requests have been submitted for the current fiscal year
- Fleet Optimization Task Force Meeting

#### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Work with County PM personnel to correct deficiencies identified by the P.M.Q.A.
- Participate in field inspection of all loaders, graders, backhoes and make recommendations for improvement to District Equipment Manager
- Review status of differential service and manual transmission service. Report findings to District Equipment Manager
- Prepare list to District Equipment Manager of rental equipment requests for following year after District Equipment Manager's Meeting with Maintenance Managers and County Equipment Managers

#### **COUNTY MAINTENANCE MANAGER**

- Meet with District Equipment Manager to discuss rental equipment needs for next letting season
- Monitor PM special tasks (April is month to drain differentials and manual transmissions)
- Review recommendations from District Equipment Manager for PM improvement areas due to findings of P.M.Q.A. and implement within your organization

#### **COUNTY EQUIPMENT MANAGER**

- Conduct and finalize annual equipment inventory
- Monitor PM program and post PM repairs
- Drain, flush and refill all differentials and manual transmissions
- Monitor status of #2 PM's off road in garage inspections
- Participate with rental equipment needs meeting in County
- Attend County Equipment Manager's Meeting
- Conduct monthly review of stockpile sites for compliance with environmental regulations and facility management plans

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.11 EQUIPMENT MAINTENANCE CALENDAR (Cont'd)**

#### **MAY**

##### **DISTRICT EQUIPMENT MANAGER**

- Finalize and review all Annual and Radio Equipment Inventories, submit to Chief of Fleet Management Division by date issued in the letter.
- Conduct equipment review of all specialized crews to ensure seasonal rebuild program was a success
- Prepare letter to Counties for June "B" Inventory review by County Equipment Manager
- Submit finalized rental equipment request to ADE/ADA-Maintenance for letting
- Coordinate winter equipment rebuilds (plows, spreaders, blowers, etc.)
- Inspect fueling sites for adherence to regulations. Ensure that PM's are being conducted to AFS hardware
- Coordinate automatic transmission service, drop pans, change filters, oil, gaskets, etc.
- Prepare letter to Maintenance Managers showing equipment requests and monies to be budgeted for 124 County funded equipment

##### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Conduct field inspections of all specialized crews
- Review status of automatic transmission service
- Review status and ensure start-up of winter rebuilds, report findings to District Equipment Manager
- Perform preventive maintenance on all AFS hardware

##### **COUNTY MAINTENANCE MANAGER**

- Monitor winter rebuild status (plows, spreaders, blowers, etc.) ensure start-up of program
- Budget County funded 124 equipment requests
- Monitor status of PM special tasks (May is month for automatic transmission service)
- Review status of equipment painting goals

##### **COUNTY EQUIPMENT MANAGER**

- Equipment painting goals should be in high gear
- Service all automatic transmissions (drain, flush, filters, oil, gaskets, etc.)
- Conduct monthly review of stockpile sites for compliance with environmental regulations and facility management plans
- Begin rebuilding all winter equipment (plows, spreaders, blowers, etc.)
- Monitor PM program and post PM repairs

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.11 EQUIPMENT MAINTENANCE CALENDAR (Cont'd)**

#### **JUNE**

##### **DISTRICT EQUIPMENT MANAGER**

- Review findings of all equipment inspections and make recommendations to Maintenance Managers for improvement
- Review all year end reports related to equipment maintenance (Plant Maintenance). Make cost savings recommendations to ADE/ADA-Maintenance
- Review scheduling status of County equipment painting programs
- Review status of #2 PM inspections for off-road equipment. Ensure completion (January to June)
- Monitor "B" Inventory status with County Equipment Managers
- Conduct County Equipment Managers Meeting to review fiscal year performance

##### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Review progress of winter rebuilds. Report findings to District Equipment Manager
- Perform ongoing field inspections and report finding to the District Equipment Manager

##### **COUNTY MAINTENANCE MANAGER**

- Monitor status of winter rebuild program (plows, spreaders, blowers, etc.)
- Review recommendations from District Equipment Manager related to field equipment inspections
- Monitor "B" Inventory status and ensure completion.
- Review equipment painting goals with County Equipment Manager

##### **COUNTY EQUIPMENT MANAGER**

- Monitor PM program and post PM repairs
- Conduct monthly review of stockpile sites for compliance with environmental regulations and facility management plans
- Complete "B" Inventory. Review findings with District Equipment Manager
- Ensure that all PM special tasks are completed
- Winter rebuilds and paint program (ongoing)
- Attend County Equipment Managers Meeting

#### **JULY**

##### **DISTRICT EQUIPMENT MANAGER**

- Monitor winter rebuilds (plows, spreaders)
- Monitor progress of County equipment painting program. Report to ADE/ADA-Maintenance
- Review status of equipment not received to avoid budgetary problems
- Conduct P.M.Q.A. in designated County

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.11 EQUIPMENT MAINTENANCE CALENDAR (Cont'd)**

#### **JULY (Cont'd)**

##### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Perform ongoing field inspections
- Conduct P.M.Q.A. review in designated County

##### **COUNTY MAINTENANCE MANAGER**

- Monitor status of ongoing rebuild program and County paint program
- Implement recommendations discussed with DEM related to field equipment inspections.

##### **COUNTY EQUIPMENT MANAGER**

- Supervise aggressive winter rebuild program (completion by August 15)
- Monitor status of County equipment painting program
- Monitor PM program and post PM repairs
- Conduct monthly review of stockpile sites for compliance with environmental regulations and facility management plans

#### **AUGUST**

##### **DISTRICT EQUIPMENT MANAGER**

- Winter rebuilds 100% of completion by August 15
- Conduct written review of Pony Express customers. Make improvements to increase quality of service
- Conduct annual garage inspections in each County, make recommendations for improvement
- Conduct inspection of all District Office assigned cars and pick-ups. Written findings to responsible ADE/ADA
- Conduct P.M.Q.A. in designated County

##### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Conduct P.M.Q.A. review in designated County
- Participate in garage inspections
- Participate in District Office vehicle inspection

##### **COUNTY MAINTENANCE MANAGER**

- Ensure completion of winter rebuilds by August 15
- Review findings of garage inspections with District Equipment Manager

##### **COUNTY EQUIPMENT MANAGER**

- Complete winter rebuilds (spreaders, plows, blowers, etc.) by no later than August 15
- Monitor PM program and past PM repairs
- County equipment painting program (ongoing)
- Conduct monthly review of stockpile sites for compliance with environmental regulations and facility management plans

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.11 EQUIPMENT MAINTENANCE CALENDAR (Cont'd)**

#### **SEPTEMBER**

##### **DISTRICT EQUIPMENT MANAGER**

- Review inventory and begin to compile tentative equipment requests for following year
- Communicate with Maintenance Managers to determine if there will be any special (out of norm) equipment requests for following year
- Review status of Mechanic and Operator training for current year
- Submit letter to Maintenance Managers on spreader verification and fall equipment inspections (request dates) submit dates to District by October 1
- Winterize all equipment (if PM program is of sound quality, this task won't exist)
- Conduct County Equipment Managers Meeting
- Conduct P.M.Q.A. in designated County.

##### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Conduct P.M.Q.A. review in designated County
- Conduct specialized crew field review. Report findings to District Equipment Manager
- Perform Gasboy parts inventory. Submit in writing to District Equipment Manager

##### **COUNTY MAINTENANCE MANAGER**

- Communicate special equipment requests to District Equipment Manager
- Review dates for spreader verification with County Equipment Manager. Submit to District by October 1

##### **COUNTY EQUIPMENT MANAGER**

- Establish dates for spreader verification and fall equipment inspections. Submit to District by October 1
- Winterize all equipment (if you have done your job monitoring PM's, this task won't exist)
- Monitor PM program and post PM repairs
- County equipment painting program (ongoing)
- Conduct monthly review of stockpile sites for compliance with environmental regulations and facility management plans

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**



## **7.11 EQUIPMENT MAINTENANCE CALENDAR (Cont'd)**

### **OCTOBER**

#### **DISTRICT EQUIPMENT MANAGER**

- Meet with Maintenance Managers to develop capitol equipment request for following fiscal year. Make recommendations to stay within life cycle goals
- Submit any specialized equipment requests to Fleet Management Division for research
- Prepare schedule for fall equipment inspections from County submissions
- Prepare tentative seasonal rebuild program schedule for November beginning
- Conduct P.M.Q.A. review in designated County
- Finalize equipment painting goals by October 31
- Provide an updated list of all AVL-equipped vehicles to the AVL Administrator by May 1

#### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Conduct P.M.Q.A. review in designated County
- Determine special needs for upcoming seasonal rebuild program

#### **COUNTY MAINTENANCE MANAGER**

- Meet with District Equipment Manager to develop capitol equipment request
- Finalize painting goals by October 31

#### **COUNTY EQUIPMENT MANAGER**

- Prepare for fall equipment inspections
- Prepare tentative plans to begin summer seasonal rebuild program by November 1
- Finalize equipment painting goals
- Monitor PM program and post PM repairs
- Conduct monthly review of stockpile sites for compliance with environmental regulations and facility management plans
- Prepare letter to Maintenance Managers for completion of annual equipment and radio inventory during month of December with submission to District by December 31st.

### **NOVEMBER**

#### **DISTRICT EQUIPMENT MANAGER**

- Finalize capitol equipment budget request for following year
- Conduct P.M.Q.A. review in designated County
- Perform fall equipment inspections in conjunction with spreader verification (all Counties) report findings to ADE/ADA
- Provide an updated list of all AVL-equipped vehicles to the AVL Administrator by November 1

#### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Conduct P.M.Q.A. review in designated County
- Develop operator training schedule
- Perform fall equipment inspections

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.11 EQUIPMENT MAINTENANCE CALENDAR (Cont'd)**

#### **NOVEMBER (Cont'd)**

##### **COUNTY MAINTENANCE MANAGER**

- Support and monitor spreader verifications and equipment inspections
- Submit names for operator training to District
- Ensure all AVL devices are distributed to contracted winter maintenance vendors by November 1

##### **COUNTY EQUIPMENT MANAGER**

- Participate in fall equipment inspections
- Interview operator of equipment to be rebuilt over winter (pavers, wideners, chippers, oil distributors, etc.). Define special needs and begin rebuilds immediately. Don't procrastinate
- Monitor PM program and post PM repairs
- Conduct monthly review of stockpile sites for compliance with environmental regulations and facility management plans

#### **DECEMBER**

##### **DISTRICT EQUIPMENT MANAGER**

- Review proposed capitol equipment budget with ADE/ADA-Maintenance and prepare for submission to Fleet Management Division
- Review findings of all fall equipment inspections. Make recommendations for improvements
- Review status of field equipment receiving #2 PM inspections in shops (July to December)
- Monitor status of summer equipment rebuild program
- Conduct P.M.Q.A. in designated County

##### **TRANSPORTATION AUTOMOTIVE EQUIPMENT SPECIALIST**

- Conduct P.M.Q.A. review in designated County
- Establish operator names in the current training system to receive training. Communicate with sites to ensure that all available slots are filled.
- Monitor seasonal rebuilds in all Counties and report findings to DEM.

##### **COUNTY MAINTENANCE MANAGER**

- Ensure that summer seasonal rebuild program is in motion
- Review findings of equipment inspections and #2 PM inspections with District Equipment Manager

##### **COUNTY EQUIPMENT MANAGER**

- Maintain aggressive summer equipment seasonal rebuild program
- Monitor PM program and post PM repairs
- Conduct monthly review of stockpile sites for compliance with environmental regulations and facility management plans

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****7.12 INSTALLATION OF PRE-WET TANKS**

All Department trucks are now pre-wet capable at the spinner. Below is the proper criterion for determining which dump trucks are to be outfitted with pre-wet tanks and provides the time frame for completing the required installations. The Department is to begin installation of dump truck pre-wet systems in a cost effective manner on all trucks using the following criteria.

- Districts / Counties are required to have a pre-wet system on all trucks assigned to interstate and interstate look-alike routes. Districts/Counties need to ensure adequate liquid storage tanks are at the supporting stockpiles. This is to be accomplished prior to the District's winter preparedness.
- Districts / Counties will also equip trucks assigned to all other stockpiles currently maintaining pre-wet storage tanks. These trucks include model year 2000 to present, only.
- Districts / Counties are to address the retrofit of these systems to the balance of the qualifying fleet over the next three years. You are also to establish pre-wet storage tanks at all stockpile locations. A goal of 100% compliance for both items should be met.
- The Districts shall provide an initial three year plan to the Director of the Bureau of Maintenance and Operations to support this effort. This will become part of the fleet model presentation.

A cost effective approach to retrofitting units are as follows:

The fleet review indicates of the 2,237 trucks, 1,436 (64.2%) have been equipped with a pre-wet system. This leaves 776 trucks not outfitted. These trucks may or may not have GL-400's. Districts simply may have chosen not to outfit the trucks.

Installation Criteria

1. The trucks to be retrofitted shall remain in the fleet for a minimum of four years.
2. The truck must be equipped with a GL-400 controller and a PAV 100 pump system.

Using the above criteria, it is estimated that 256 trucks will need to be retrofitted. The chart below depicts a count by District of the units not currently equipped. The Districts will need to verify and provide the number of trucks that will meet the installation criteria.

2-0	90
3-0	123
4-0	89
5-0	19
6-0	44
8-0	137
9-0	140
11-0	35
12-0	99

A statewide pre-wet kit contract has been developed by the Fleet Management Division's Specification & Buying Section in conjunction with the Department of General Services. The Counties should utilize this contract when purchasing any retrofit pre-wet kits.

Using the estimated number of 256 units, at an approximate cost of \$2,000 per truck, the total retrofit cost will be \$512,000 over the next three fiscal years. In summary this three year plan will fulfill the 100% statewide pre-wet compliance. Older trucks will naturally be removed from the fleet based upon fleet model projected purchases.

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****7.13 PROPER M-805 REPORTING & MONTHLY PLANT MAINTENANCE ENTRY**

The M-805 form shall be the only standardized reporting document utilized for transfer of mileage and days of use entry into Plant Maintenance via the transaction Y\_DC1\_32000862. All other methods of record and entry are invalid and shall not be acceptable immediately.

It has become necessary to update the means by which the Department can instantaneously provide information to various entities on all personnel (G series) vehicles operated by the Department (Pool and Assigned). This information will include "Home" and "Field" miles along with the total days of operation during each calendar month. All entries must be timely and accurate. Completed M-805 forms must be submitted on or before the fifth day to the automotive officer (AO) or designee for entry into SAP. This will allow time for the data entry into Plant Maintenance by the 10th of each new month.

Accurate M-805 data capture begins at the operator level, and review prior to entry into Plant Maintenance will result in accurate reporting to Department of General Services on a monthly basis. Incorrect daily recording along with inaccurate entry have lead to skewed data entry. Common mistakes include the following: multiple entries on the same day for different travel statuses (Home and Field), days of use in excess of the maximum available days in any calendar month of 31 days resulting from multiple entries related to costing elements and multiple operators counted as multiple days on the same date of operation. Please reference the instructions for examples of the proper method of recording travel status on the M-805, upon supervisor review the M-805 should be forwarded for input using the attached data entry instruction into Plant Maintenance. The instructions and the M-805 forms can also be located at the following link:

\\pdedfap2k01\inbox\Intranet\M805

It should be noted that Bureaus that possess vehicles under assignment from the Fleet Management Division will be responsible to accurately report usage via the M-805 with the appropriate supervisory review. Automotive Officers with SAP access will continue to perform entry into SAP Plant Maintenance, Automotive Officers that do not have access to SAP Plant Maintenance will continue to forward completed M-805 forms to the Fleet Management Division for data entry into SAP Plant Maintenance.

**7.14 ENGINE IDLE TIME REDUCTION – MACK AND NAVISTAR DUMP TRUCKS**

This will serve as policy to establish Department guidelines for Engine Idle Time Reduction on Mack and Navistar Dump Trucks and is effective immediately. The time required to implement this policy will be an additional 15 minutes per unit and will be captured against assembly 813831411 at each scheduled Preventative Maintenance (PM) #4 PM Idle Download.

Enacted into law on October 9, 2008, Act 124, restricts diesel powered equipment in excess of 10,001 lbs from idling in excess of five (5) minutes in any given 60 minute period. All Navistar and Mack Dump Trucks will have the engine idle timer parameter set to a maximum of five (5) minutes. When the initial idle parameters have been set each organization will be required to download the idle data (idle percentage) accumulated at each scheduled #4 PM that occurs every 90 days/quarterly per Department policy. The quarters are broken down as such:

- \*1st quarter...July-August-September
- \*2nd quarter...October-November December
- \*3rd quarter...January-February-March
- \*4th quarter...April-May-June

Stand alone #4 PM does not require an M-824 to be done.

- Idling: Idling is defined as operating a main propulsion engine of a vehicle without moving. Districts, Counties, and Bureaus need to emphasize the need for fuel conservation and minimal idling to all employees during bid days, equipment inspections, or any opportunity available. Discussion should include following manufacturer's recommendation to allow for turbo cool-down and providing examples for different equipment.

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

- No department equipment should be left idling when unattended.
- Seasonal idle restrictions: **The only exception to seasonal idle restrictions shall be if a piece of equipment is actively performing in a work traffic control zone and requires the idle timer to be disabled or overridden to conduct safety sensitive operations. Appropriate supporting documentation must be provided for relief from mandatory 5 minute idle restriction parameter.**
- **Non-Winter Season: (Defined as April 1 to October 31 – Annually)**
  - All Department equipment with automatic idle inhibitors shall have the automatic idle shutdown device enabled and set to five minutes maximum.
  - Equipment shall not run solely for the purpose of heating or cooling for driver comfort.
- **Winter Season: (Defined as November 1 to March 31 – Annually)**
  - Idle inhibitors may be modified to allow equipment that is pre-staged for an upcoming winter storm event to idle as long as the operator remains with the equipment. Note: (The reporting Stockpile is not defined as a pre-staging area. The beginning of the route or a strategic location along the route is the pre-staged area).
  - Equipment returning to a stockpile will be shut down after the appropriate cool down period with the keys in the possession of the operator as the vehicle is exited.

Data captured on model years 1998 through current model year Mack Dump Trucks, Navistar single-axle and tandem-axle Dump Trucks, model year 2008 through current model year. Life to Date Engine Hours and Life to Date Idle Hours will be entered into SAP Plant Maintenance using C9 and C10 measuring points and will be evaluated on a monthly basis and released as a monthly color coded metric identifying progress in reducing idle time by District and County. The color coded monthly metrics will be based upon idle percentage only and the final score captured on CMMT measures 4 and 5 will be based upon the following two criteria:

- 1) The first metric will measure the proficiency and consistency of each District or County to download idle data from both Mack and Navistar Dump Trucks that have been in continuous service for one year. This metric will capture the efficiency of each organization to successfully download each unit at every scheduled #4 PM. This score will represent 50% of the final score when factored with the total idle percentage metric and reported on the annual Fleet Model, as well as 40% CMMT #4.
- 2) The second metric will be based on the total idle percentage recorded by each Organization for their individual truck fleet. This will be released on a monthly basis as a color coded dashboard metric for evaluation of the current accumulated idle percentage. At the close of the fiscal year the final total idle percentage for each organization will be calculated and represent 50% of the final score for the idle collection process recorded on the annual Fleet Model, as well as 60% of the final CMMT #5 measure.

Percentage Downloaded Chart	Score
100% down to 85%	5
84% down to 70%	4
69% down to 55%	3
54% down to 40%	2
39% down to 25%	1
24% and Below	0

Accumulated Idle Percentage	Score
20% to 25%	5
26% to 30%	4
31% to 35%	3
36% to 40%	2
41% to 45%	1
46% and Above	0

The data collected and accumulated throughout the fiscal year will be represented as 25% of the final Fleet Model score for each District and County as well as CMMT #4 and #5. At the conclusion of each fiscal year, the data collection spreadsheets will be reset for the upcoming fiscal year and completed sheets will be retained as historical data when comparing progress of idled reduction statewide.

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

---

That being stated, this issue demands immediate action over and above our “Fuel Conservation Policy.” Current engine technology allows changes to engine idle settings that limit idle time as well as providing a means to monitor idle compliance.

All organizations have the necessary equipment. They have been trained on the proper procedures and will follow the same procedure of idle data capture at the time of every scheduled #4 PM. The goal of 100% compliance with this initiative. As technology evolves more equipment will be included in this program with an ultimate goal of reducing the overall statewide idle percentage to <5%.

Although this program will address the largest single portion of our fleet, it is not meant to be interpreted as though we are not concerned with all other equipment. We are concerned, and the idle time must be minimized. We must drive the cultural change to “turn them off.” This mindset must be conveyed, monitored and enforced as it relates to ALL equipment.

**7.15 FUEL CONSERVATION POLICY**

This policy provides specific Department guidelines exceeding the Management Directive, effective immediately and will be time neutral. As you are aware the cost of gas and diesel fuel has escalated very rapidly in the past several months. Local municipalities have begun to adopt in-house laws exceeding EPA fleet guidelines. Commonwealth Management Directive 230.10 is the governing document for state employees:

- If several employees are traveling to the same meeting, car pooling is mandatory.
- If an employee does not want to ride in the state car, they are free to take their personally owned vehicle at their own expense and are not mandated to take other employees as carpoolers. Further, the Department will not pay for several employees to travel by themselves, to the same event, and pay mileage to each employee separately.
- Management will evaluate the need for employees to attend District and Statewide meetings. Meeting organizers will consider video conference and teleconferencing as viable alternatives. Management must approve all meetings and the means by which they are conducted.
- Districts/Bureaus will review and optimize routing to reduce travel time and miles traveled. Ref: Management Directive 230.10, section 09, letter a, number 2 - all travel shall be by the most direct and expeditious route considering both travel time and distance.
- Districts/Bureaus will hold fuel conservation meetings to discuss and review fuel use, carpooling, optimal routing, and employee involvement. This effort must become a lifestyle change in order to be effective.
- Do not use dump trucks or large equipment solely for the purpose of transporting employees to and from the work site.
- No department equipment should be left idling when unattended.
- Seasonal idle restrictions: The only exception to seasonal idle restrictions shall be if a piece of equipment is actively performing in a work traffic control zone.

**Non-Winter Season:** defined as April 1 to October 31 (annually).

- All Department equipment with automatic idle inhibitors shall have the automatic idle shut down device enabled and set to five minutes maximum.
- Equipment shall not run solely for the purpose of heating or cooling for driver comfort.

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.15 FUEL CONSERVATION POLICY (Cont'd)**

**Winter Season:** defined as November 1 to March 31 (annually).

Idle Inhibitors may be modified to allow Equipment that is pre-staged for an upcoming winter storm event to idle as long as the operator remains with the equipment. Note: (The reporting Stockpile is not defined as a pre-staging area. The beginning of the route or a strategic location along the route is the pre-staged area).

Equipment returning to a stockpile will be shut down after the appropriate cool down period with the keys in the possession of the operator as the vehicle is exited.

When preventative maintenance is performed on equipment, ensure all tires are inflated to the manufacturers' recommended pressure.

Managers will review Department equipment usage and long term need, and eliminate unnecessary equipment. This effort of "Right Sizing" the fleet must continue annually as seasonal work is planned and becomes part of every manager's culture.

The Fleet Management Division will monitor fuel usage and monitor idle time. Managers must embrace, support and monitor these measures, promoting them at every opportunity.

### **7.16 POV MILEAGE**

Current Department policy provides the District Executives with discretion in assigning Department owned vehicles. Currently the Department spends more than \$4.5 million annually reimbursing employees for the use of POV. Therefore it is imperative that the use of POV is controlled. The following is to serve as directions to ensure that the assignment of Department vehicles is done in such a manner as to address and minimize the reimbursement level.

- The Districts shall perform a comprehensive review of the travel expense submissions of all personnel included in the high mileage reimbursement report to determine what action should be taken.
- The Districts shall review current pool vehicle utilization and reassign pool vehicles to high mileage reimbursement staff if appropriate.
- The Districts will conduct a review of all current permanently assigned vehicles and consider re-assignment to high mileage reimbursement staff as appropriate.
- The Fleet Management Division shall review the District's POV Plan, evaluate their recommendations and respond to the District.
- The Districts must submit their final POV Plan to the Director of the Bureau of Maintenance and Operations.
- The Districts must complete an annual assessment of the POV Plan utilizing the above steps by the end of each fiscal year. Any changes must be submitted to the Fleet Management Division for review at that time and shall become part of the Annual Fleet Model Presentations.

### **7.17 THREE YEAR PLAN – WINTER CARRYOVER TRUCKS**

The original number of authorized trucks statewide was developed by the Fleet Optimization Task Force (FOTF) and incorporated into each District's Fleet Model with established truck quotas. These quotas were then incorporated into the Maintenance Efficiency Cost Effectiveness (MECE) guidelines and allowed a 10% overage either for breakdowns or other scheduled maintenance activities during winter operations. Winter carryover trucks should not exceed 10% of the established MECE guideline.



## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.17 THREE YEAR PLAN – WINTER CARRYOVER TRUCKS (Cont'd)**

When the District/County determines the need for a change to the number of approved trucks, loaders, digging equipment and crew cabs, the process as outlined in this policy shall be followed to ensure consistency with the Maintenance Efficiency Cost Effectiveness (MECE) guidelines and right sizing of our fleet statewide (criteria attached). The District Executive shall submit all pertinent information justifying the change to the BOMO Director.

Prior to submitting your application for change, please refer to the current version of the proposed fleet size calculation, winter survey based on stockpiles and the original three year truck plan. While the application for change can be submitted anytime during the fiscal year, compliance will only be measured annually during the fleet model presentations.

#### **Fleet Quota Application for Change Criteria**

##### **Winter Truck Quota (Department, Rental and Auxiliary)**

**Current Policy** - Fleet size calculation as shown on the approved Three Year Truck Plan.

**Change** - District/County realizes a significant/permanent change in any of the factors found in the Fleet Size Calculation.

##### **Loaders**

**Current Policy** - One 1.75 cubic yard or larger loader per stockpile plus one spare per county. The stockpile quotas would be at or lower than the number identified by formula in Chapter 4 of the Maintenance Manual to determine the number of stockpiles that a county should maintain.

**Change** - District/County realizes change in stockpiles as shown on the winter survey.

##### **Digging Equipment (Excavators, backhoes and track excavators, all units in excess of 12,000 lb. GVW)**

**Current Policy** - Maximum of two units per ACMM within the county.

**Change** - District/County realizes the need to change quantity of equipment in the ACMM area within the county and makes application for quota change as per policy.

##### **Crew Cabs (Currently all ECC “A13” crew cabs)**

**Current Policy** - One crew cab per “winter” foreman, and one spare per ACMM section within the county.

**Change** - District/County realizes change in number if “winter foreman” or District/County realizes a change in number of ACMM’s and makes application for quota change as per policy.

##### **Documentation Required for Application (if appropriate)**

- A. Current and revised version of proposed fleet size calculation
- B. Proposed revision to winter survey
- C. Revised three year truck plan

The guidelines for using winter carryover trucks are as follows: Winter Carryover Trucks/Knock Out Trucks are to be used to replace trucks that are assigned designated snow routes when breakdowns or major repairs occur. Carryover trucks shall not be assigned designated snow routes and are not to be used for non-snow removal activities.

Each District will be required to present their plan for maintaining winter carryover trucks as part of the District Business Plan in the spring and at the annual Fleet Model presentations. Districts will 838 their winter carryover trucks by May 15 annually so the trucks can be sold at the spring auction. It is important to remember that it is not cost effective to carryover a large volume of trucks.

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****7.18 UNIFORMS FOR EQUIPMENT MAINTENANCE STAFF – SERVICE**

Following the below guidelines, uniforms must be provided to your equipment maintenance staff. This program has been reviewed and approved by all levels of Department management and our AFSCME partners. You have the authority to procure uniform rentals locally or at the District level.

**Job Classifications** Automotive Mechanic Supervisor (93120), Automotive Equipment Foreman (93140), Automotive Mechanic (93110), Diesel Mechanic Instructor (93133), Diesel Mechanic (93130), Machinist (93310), "Parts Chaser" (no title code), Welder (93410), Equipment Body Repairer and Painter (93080), Tradesman Helper (93000), Semi-Skilled Laborer (90030) (NOTE: The Tradesman Helper, Welder and Semi-Skilled Laborer must be working in the garage and conducting equipment repair as their regular assigned duties. The Automotive Equipment Foreman must be directly supervising Mechanics.)

**Style** Employee has option of short or long sleeve shirt.

**Material** Welder = 100% cotton, all other employees blended, i.e. 65/35.

**Color** Navy blue pants, light blue shirt. \*Automotive Mechanic Supervisor, Automotive Equipment Foreman and Mechanic Instructor shirt shall be white.

**Emblems** PennDOT - On the left side of shirt.  
**Name** - Employee's choice of name or nickname on right side of shirt.  
**Optional** - Work location i.e. 8-5, Erie County, Fleet Management Division, etc. under employee's name

**Other Requirements**

- Once uniforms are supplied it becomes a condition of employment to wear them daily.
- Must be rented and include cleaning (minimum of 5 changes, 11 issued per employee).
- Service shall be procured locally or at the District level using Service Purchase Procedures.
- \* Automotive Mechanic Supervisors that routinely work on equipment (i.e. night shift) may be provided light blue shirts.

The correct procurement procedure to follow in establishing a new contract is the PUB 1 "SERVICE PURCHASING GUIDE", PennDOT's Purchasing Manual, and the attached Equipment Maintenance Staff Uniform Policy.

All Plow Blade Replacement, to include incidental parts and/or is required for plow blade replacement, such as: bolts, curb guards, cover blades, shoes and wearable items that are directly associated with the replacement, shall be considered part of the "Plow Blade Replacement" and should be charged to program 712 accordingly. These repairs to Department equipment, no matter who performs the work (the field or the garage) shall be billed to program 712 Assy 712752201, per Foreman's Manual (Pub 113).

**7.19 PLOW REPAIRS – PLOW BLADE REPLACEMENT CONSISTENT CHARGING**

All other Plow Repairs shall be performed by the Garage using standard work order procedures in program 813. Significant debate has risen among the Counties regarding proper procedure. This policy is designed to end that debate. Plow Blade Replacement performed by the garage will now require an eight digit work order number (4xxxxxxx) that charges program 712. Bureau of Maintenance and Operations, Maintenance Division or Fleet Management Division, can assist any County with creating appropriate work orders to facilitate the charges.

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****7.20 LONG-TERM WORK ORDERS FOR EQUIPMENT VERIFICATION**

In an effort to more accurately capture costs, one garage work order is to be opened for each cost function listed below:

- In the Fall, **Mounting of multiple Plows**, charged to program 813, **Labor Only**
- In the Fall, **Mounting of multiple Spreaders**, charged to program 813, **Labor Only**
- In the Fall, **Multiple Verification of Spreaders**, charged to program 813, **Labor Only**
- In the Spring, **Multiple Plow repair inspection**, charged to program 813, **Labor Only**
- In the Spring, **Multiple Spreader repair inspection**, charged to program 813, **Labor Only**

These work orders must have the approval of the District Equipment Manager. These work orders will be used for a maximum of 60 days for the purpose stated above only. Any further diagnostic testing or repairs will be carried out individually by equipment, by work order. These long-term work orders will include in the work order descriptions the Description highlighted above and will be reviewed for compliance annually via the Shop Compliance Reviews. There will be no other long-term work orders for equipment diagnosis or repair to include the eight digit 4 or 5 series work order number (4xxxxxxx or 5xxxxxxx). These five repair orders will be created using ORG9999 (P\*\*\*9999) as they are Labor Only repair orders.

**7.21 ASSIGNED VEHICLE “G” IDENTIFIER IN PLANT MAINTENANCE**

This will serve as policy with specific Department guidelines, effective immediately, and will require 1 to 2 hours per organization for the initial data entry.

It has become necessary to update the means by which the Department can instantaneously provide information to various entities on all personnel (G series) and all crew cab vehicles (A-12 and A-13) that are assigned to employees. We must also be able to identify those units used by the employee for travel to and from their residence.

It will be necessary for each Organization/Bureau to make manual entries in Plant Maintenance (PM) in the following fields: “Person Assigned” field located under the ECC Tab should be populated with the name of the assigned operator of the vehicle. The “Assignment Designation” field located under the ECC Tab provides a drop down menu to select the proper assignment designation class. These designation indicators have been updated to reflect three new vehicle categories based on the recent changes in the vehicle assignment policies.

In addition to identifying the “Person Assigned” and the “Assignment Designation”, two additional entries must be made to any record on any vehicle that is being driven “to and from” home. The word “Home” must be entered in the “Sort Field” under the Organization Tab. The employee number must be entered under the ECC Tab in the newly established “Employee Number” field; the employee number must be entered in an nine digit format (example P00123456). If it is a vehicle that is not assigned and is utilized as a pool vehicle, it must be identified by entering “Pool” in the Sort Field.

Personnel vehicles used to support County garage operations should have “Shop Support” entered in the Sort Field. If the vehicle is utilized in support of County field operations or special programs the appropriate support function or program must be identified in the Sort Field. Examples are but not limited to the following: Maintenance, Bridge, Survey, Stamp and Marcellus Shale programs.

As these entries are completed it is important to supply only the information requested in the identified fields, quotation marks, asterisks, and any other data listed in these fields will create anomalies when identifying assignments of A12, A13 and G class personnel vehicles. The identifiers listed do not apply to any other types of equipment other than those identified above.

It is imperative that future changes to assignments and changes in the use of the vehicle for travel to and from home be kept current. Automotive Officers that do not have access to enter this information in SAP will be required to identify the assignment criteria by which each vehicle under their organization has been assigned. This information will be relayed to the personnel at the Fleet Management Division for input in the SAP Plant Maintenance system.

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.22 HANDS-FREE COMMUNICATION DEVICE USE WHILE OPERATING STATE OWNED VEHICLE**

Pennsylvania has enacted legislation banning hand-held mobile communications device use and text messaging while driving a motor vehicle. The policy below prohibits Bureau of Maintenance and Operations (BOMO) Employees the use of hand-held mobile communications device use and text-messaging while driving State vehicles. The only exception to this policy will be in the event of an emergency.

“BOMO employees driving State vehicles are required to comply with all state and local laws regarding the use of mobile communication devices while driving. If a mobile communications device must be used by an employee while driving a State vehicle, a hands-free device must be used. Drivers are encouraged to keep mobile communications device use to a minimum. Whenever possible, employees should not make or receive calls while driving. Only in the case of an emergency is the use of a hand-held mobile communications device without a hands-free device permitted.”

### **UNDER NO CIRCUMSTANCES IS EMPLOYEE TEXT-MESSAGING AUTHORIZED WHILE DRIVING A STATE VEHICLE.**

BOMO has developed the following guideline for issuance of hands-free devices for a State provided mobile communications device. **All Division Chiefs, section managers and employees assigned a State vehicle or who travel extensively with a State vehicle and have the approval of the Bureau Director (an e-mail approval will suffice) are authorized a State provided hands-free mobile communications device.**

### **7.23 EQUIPMENT FUELING POLICY**

In order to help prevent fuel spills and the potential dangers and environmental hazards that such spills can cause, effective immediately, all Department personnel shall adhere to the following policy when fueling equipment.

All personnel that are fueling equipment are required to remain with the equipment until the fueling is completed. To help ensure this, the hold open clip on all nozzles at all Department fueling sites and fuel trucks must be removed. Effective immediately the use of the hold open clip or other devices to block the fuel nozzle in the open position is prohibited.

### **7.24 PENNDOT VEHICLE ASSIGNMENT POLICY**

**All Commonwealth Fleet Vehicles are now classified as permanently assigned or pool vehicles.**

#### **ASSIGNMENT CRITERIA:**

Vehicles will now be assigned based upon one or more of the following business travel needs:

- 1) The official or employee travels at least 6,000 business miles within a six-month period or records business usage of the Commonwealth Fleet vehicle at least 80% of the available work days within a six-month period
- 2) The official or employee has commonwealth employment responsibilities either for law enforcement or for responding to emergencies involving public health or safety and those responsibilities occurs outside normal duty hours requiring travel from residence to a location; the assigned vehicle is equipped with tools, specialized equipment or other supplies required to perform those responsibilities.
- 3) A written justification showing that the authorization of a permanently assigned commonwealth fleet vehicle to an official or employee is cost effective is submitted by an agency head and approved by the Secretary of the Department of General Services (DGS) or their designee.

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

As a result of these changes to both the Commonwealth Vehicle Policy and the Department Vehicle Policy it is necessary to provide specific instruction and chronological timeline to ensure compliance with these changes. The following are step by step instructions which are to be followed in order and completed by the dates identified for mandatory compliance.

- 1) A District/Organization specific spreadsheet (Attachment 1) has been provided which identifies all individuals within your organization that have been approved to be assigned vehicles under 'Assignment Criteria 2'. Any personnel changes that have or will occur in the future will require the owning organization to update all information in Plant Maintenance/SAP.
- 2) Attached is a file identifying both "assigned" and "pool" vehicles (Attachment 2) that do not meet the current standards as measured and monitored over the last 6 months. You are to immediately re-assign any and all non compliant "assigned" vehicles (on the attached worksheet) to high mileage Privately Owned Vehicles (POV) payout users. The latest high mileage District specific POV payout workbook has been attached for your convenience (Attachment 3). Note that VANS are exempt from this requirement and will be permitted to be used in their current capacity until such time as they have reached their useful life (120,000 miles or 10 years). At that time if it is the Districts desire to replace the van, a justification must be submitted to place it under category #3 (assigned with justification)
- 3) All re-assignments must be posted in SAP Plant Maintenance in the appropriate fields. This step is required for all re-assignments related to the above and below instruction. These changes are required to be entered immediately upon reassignment of every vehicle. All other vehicle records will also need to be updated to comply with the policy.
- 4) Re-assign pool vehicles that have been identified as not meeting the criteria to individuals with high mileage payout POV (exceeding an average of 1,000 miles/ month). This is to be completed in order from the highest mileage users to the lowest.
- 5) Review the remaining high payout POV users that have yet to be assigned an Agency vehicle and compare their mileage payout to the business mileage recorded on all of your remaining compliant "assigned" vehicles. Ultimately all vehicles are to be assigned to the highest mileage users.
- 6) The Districts will be permitted to retain the remaining compliant pool and non-compliant vehicles as pool vehicles. At that time a review will be conducted to verify the need for pool cars. Those that fail to meet the criteria will be relinquished to Fleet Management Division (FMD) or sent to sale as directed by FMD.
- 7) 'Assignment Criteria 3' on the previous page is the means by which any and all requests to retain "Assigned" or "Pool" vehicles that do not meet the assignment criteria shall be made. Examples of requests that may be considered may include retention for seasonal needs such as the STAMPP program, assignments that will improve operational efficiencies and other such as assignment in an effort to prevent interference of workplace operations (i.e., parking conflicts.) Justifications should also identify if the vehicle will be used to commute and if so why.

The goal of these changes is to lower costs for Agency travel. Your compliance with these steps is not optional. Maximum utilization is the goal. If Agency vehicles are not available please refer to the Commonwealth's Travel Policy for alternate approved means of travel. Please note that if in the Harrisburg area and an Agency vehicle is not available, employees are required to check with DGS, Bureau of Vehicle Management to determine if a pool vehicle is available for use.

Compliance with this policy will be monitored continuously to ensure adherence to mileage goals and/or other assignment criteria. You are required to review and correct incompliant assignments as necessary on a semi-annual basis during the months of July and January.

**COMMUTING IN COMMONWEALTH VEHICLES:**

Use of a passenger vehicle for commuting between a personal residence and work location is taxable to an employee as wages, per regulations set forth by the Internal Revenue Service (IRS). Commuting in commonwealth passenger vehicles is prohibited unless one of the following exceptions is preauthorized and applies:

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

- 1) The passenger vehicle is permanently assigned to an operator who has been authorized by the agency head to use the vehicle for commuting based on cost effectiveness or business efficiency and who has completed and submitted Form STD-928, Declaration of Use of a Commonwealth-Provided Vehicle, to Bureau of Vehicle Management. The agency head shall annually re-evaluate continued use of a permanently assigned vehicle for commuting.
- 2) The passenger vehicle is a pool vehicle, and it is more cost effective and efficient for the operator to take the passenger vehicle home based on the following day's work location. The operator must obtain supervisor approval prior to taking the vehicle home.

Individuals assigned an Agency vehicle under "Assignment Criteria 2" are permitted to commute in their assigned state vehicle. All others must park their assigned vehicle at their respective daily reporting sites. These vehicles are to be utilized for official use only.

### **ASSIGNMENT AND USE OF STATE-OWNED LIGHT DUTY AND PERSONNEL VEHICLES:**

All personnel vehicles will be assigned in accordance with specified criteria below. It is the responsibility of each individual assigned a vehicle to adhere to all laws, regulations and policies.

#### **I. SCOPE**

This Department-wide policy applies to all state-owned personnel vehicles, and to light trucks at or under 11,000 pounds gross vehicle weight.

#### **II. RESPONSIBLE ORGANIZATION**

Deputy Secretary for Administration. The Bureau of Maintenance and Operations is responsible for administering this policy for the Deputy Secretary for Administration.

#### **III. POLICY**

- A. Permanently-Assigned Department Fleet Vehicles are assigned to a Department employees based on one or more of the following business travel needs.
  - 1) The employee travels at least 6,000 business miles within a six-month period OR records business usage of the Commonwealth Fleet vehicle at least 80% of the available work days within a six-month period.
  - 2) The employee has commonwealth employment responsibilities either for law enforcement or for responding to emergencies involving public health or safety AND those responsibilities occur on a frequent basis outside normal duty hours requiring travel from a residence to a location; AND the assigned vehicle is equipped with tools, specialized equipment or other supplies required to perform those responsibilities.
  - 3) A written justification showing that the authorization of a permanently assigned Commonwealth Fleet vehicle to an official or employee is cost effective is submitted by an agency head and approved by the Secretary of General Services or their designee.
- B. Agency Pool Vehicles are general use vehicles available for temporary assignment to multiple individuals and must meet the following criteria.
  - 1) Pool vehicles should be used an average of at least 6,000 business miles every six months or should record business usage on at least 80% of the available work days within a six-month period.
  - 2) Pool vehicles are to be used when available and where more cost effective than other options.



**PennDOT VEHICLE ASSIGNMENT POLICY**

ASSIGNMENT CRITERIA DESIGNATION	ASSIGNMENT CRITERIA DESCRIPTION	PERSONNEL ASSIGNED	VEHICLE ASSIGNMENT TYPE	VEHICLE COLOR	LICENSE PLATE TYPE
1	The official or employee travels at least 6,000 business miles within a six-month period OR records business usage of the Commonwealth Fleet vehicle at least 80% of the available work days within a six-month period.	Assignments designated by Deputy Secretary Bureau Director or District Executive	Sedan or Pick-up	Blue or Yellow	Commonwealth
2	The official or employee has commonwealth employment responsibilities either for law enforcement or for responding to emergencies involving public health or safety AND those responsibilities occur on a frequent basis outside normal duty hours requiring travel from a residence to a location; AND the assigned vehicle is equipped with tools, specialized equipment or other supplies required to perform those responsibilities.	District Executives All Deputy Secretaries BOMO Bur Dir. ADEs, CMMs ACMMs, DEMs, CEMs, Central Office and Dist Bridge Engineers, Emergency Traffic Control Specialists/ Responders and Others as approved by Highway Admin Deputy Secretary	Sedan, All-wheel drive vehicle or Pick-up	Blue or Yellow	Commonwealth
3	A written justification showing that the authorization of a permanently assigned Commonwealth Fleet vehicle to an official or employee is cost effective is submitted by an agency head and approved by the Secretary of General Services or their designee.	Written Justification from the District Executive required. Review/approval of the Sect of Trans and Secretary of OA	Sedan or Pick-up	Blue or Yellow	Commonwealth

**IV. VEHICLE TYPE CRITERIA**

- A. The Secretary of Transportation will be eligible for a vehicle of the type specified by the Department of General Services.
- B. Other employees meeting the Assignment Criteria 2 will be eligible for a vehicle of the type specified on the criteria matrix. NOTE: All wheel drive vehicles or 4 X 4 Pickup trucks will be permitted for all CMM, ACMM and 2 per Engineering District.
- C. Individuals meeting Assignment Criteria Designations 1 and 3 are eligible for sedans, pickup trucks or light duty pick-up trucks. (no all wheel drive or 4 X 4).

**V. OPERATION**

- A. Commonwealth vehicles shall be operated at all times in a safe and responsible manner and shall be used only for the conduct of the official Commonwealth business.
  - 1) Permanently assigned vehicles must be operated by authorized Commonwealth officers or employees who are properly licensed to drive a motor vehicle and have completed any certification training if required.
  - 2) All occupants of permanently assigned vehicles must be authorized officers or employees of the Commonwealth or such members of the public or private sector as are necessary for the conduct of the official business for which the vehicle is operated.
  - 3) The "Release of Liability" form is to be signed by; 1) Anyone riding in a non-passenger vehicle; and 2) members of the media riding in any vehicle type. Anyone else traveling in a state vehicle, by definition, should be traveling in connection with Commonwealth business; therefore, a release would not be necessary.
  - 4) Operators of assigned vehicles shall be responsible for ensuring that all state vehicle standards and qualification, such as gross carrying weight, are adhered to during an assignment.
  - 5) Operators and their immediate supervisors shall be responsible for ensuring that the routine preventive maintenance of their vehicle is properly and regularly performed in accordance the Preventive Maintenance Program of the Bureau of Maintenance and Operations.



## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **CHAPTER 7.24: PENNDOT VEHICLE ASSIGNMENT POLICY (Cont'd)**

- 6) Automotive failure or accidents: Refer to related policies cited in Chapter 5 of the Equipment Managers Manual (Pub 177).
- 7) Employees are to obey all Motor Vehicle laws. Any individual cited for violation of the Vehicle Code while operating a State-owned or leased vehicle must report the violation to the employee's supervisor within 48 hours after the incident.
- 8) Wearing seat belts. All occupants of a state vehicle shall be properly restrained by a seat belt used according to the manufacturer's specifications at all times when the vehicle is in motion. Failure of an occupant to use a seat belt shall be noted in the operator's personnel file and may subject the operator to further sanctions.
- 9) Operators of personnel vehicles are required to record daily all information on the M-805, Record of Equipment Operation, in accordance with the instructions on the reverse side of the form.

#### **VI. COMMUTING IN COMMONWEALTH VEHICLES:**

- A. Use of a passenger vehicle for commuting between a personal residence and work location is taxable to an employee as wages, per regulations set forth by the Internal Revenue Service (IRS). Commuting in commonwealth passenger vehicles is prohibited unless one of the following exceptions is preauthorized and applies:
  - 1) The passenger vehicle is permanently assigned to an operator who has been authorized by the agency head to use the vehicle for commuting based on cost effectiveness or business efficiency and who has completed and submitted Form STD-928, Declaration of Use of a Commonwealth-Provided Vehicle, to BVM. The agency head shall annually reevaluate continued use of a permanently assigned vehicle for commuting.
  - 2) The passenger vehicle is a pool vehicle, and it is more cost effective and efficient for the operator to take the passenger vehicle home based on the following day's work location. The operator must obtain supervisor approval prior to taking the vehicle home.

Individuals assigned an Agency vehicle under "Assignment Criteria 2" are permitted to commute in their assigned state vehicle. All others must park their assigned vehicle at their respective daily reporting sites. These vehicles are to be utilized for official use only.

#### **VII. REPORTING USAGE**

- A. Responsible organizations shall report usage as instructed by the Bureau of Maintenance and Operations.

#### **VIII. CONFIDENTIAL LICENSE PLATES**

- A. With the exception of the Secretary of Transportation, all license plates issued will be the standard "Official Use Only".

#### **IX. TAXABILITY OF STATE-OWNED VEHICLES**

- A. Certain employees permanently assigned to state-owned vehicles are subject to the taxability on commuting value of the state-provided vehicle in accordance with Management Directive 315.20, amended.

#### **X. RELATED POLICIES**

- A. Governor's Office Management Directives.
  - 1) Management Directive 615.16
  - 2) #315.20 – Taxability of the Use of State-Provided Vehicles
- B. Pub 177 – Equipment Managers Manual.
- C. Administrative Circular 85-55 and related procedures.

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****7.25 SPECIALIZED EQUIPMENT POLICY**

As a portion of the ongoing effort to minimize costs, improve efficiencies and maximize utilization of equipment, the following policy is hereby established. This will promote the sharing of equipment both inter and intra District and will be time neutral. The foundation for this policy will be shown on a spread sheet that provides usage, production and rented equipment information. This document will be generated at the end of each fiscal year and be the basis for decisions made regarding approval or denial of the purchase of any specialized units requested.

The intent of this letter is not to provide the “how” it is to be accomplished. The intent of this letter is to promote and encourage the sharing of resources. It is also to serve to incite the review and analysis of ownership of the existing fleet. Low hour units should be purged from the fleet in order to minimize costs and allow for a more accurate representation of productivity. Where appropriate, alternate lower cost equipment should be considered for deployment for the same job function, i.e., towed (distributor) oil tanks in lieu of dedicated distributors.

The following policy is established and pertains to the following types of equipment: Athey Belt Loaders; Oil Distributors (self propelled); Milling Machines (self propelled); Finish Pavers (full size); Self Propelled Stone Chippers; Self Propelled and Loader/Grader Mounted Wideners.

**Implement Upon Receipt of the Policy:**

1. The use of rented equipment shall be prohibited in Districts where Department owned equipment is maintained if:
  - a) All District units fail to meet 120% of the established average Statewide usage, or meet the minimum use standard, whichever is higher. Activities within the District must be scheduled so as to maximize equipment use.
2. The use of rented equipment shall be prohibited for any given class of equipment where one or more of the adjacent Districts:
  - a) Maintain like equipment that does not meet 80% of the established average Statewide usage or meet the minimum use standard, whichever is higher AND
  - b) Scheduling has not been established to maximize usage for the season for all applicable units.

Approvals to use rented equipment must be pre-approved by the Assistant District Executive for Maintenance. It is suggested and you are encouraged to rent equipment with payment being results based (i.e. pay by the foot from milling or the ton for paving etc.).

**Equipment Budget Review:**

1. No consideration will be given to the purchase of new equipment unless ALL of the following criteria are met:
  - a. All like units within the District EXCEED the statewide “average hours per unit” or minimum use standard for that category of equipment, whichever is higher AND
  - b. The unit being replaced exceeds the useful life as defined by the Fleet Model Criteria AND
  - c. All units within the District EXCEED the statewide “average production units/piece.”
2. Where specialty units are requested justification must be provided in support of that request. That justification must include information regarding the status of owned equipment to include:
  - a. Did all units meet or exceed state-wide average use?
  - b. Did all units support functions that met or exceeded statewide production per unit?
  - c. Did all units meet or exceed Average Production units per hour?

Savings realized through this initiative will need to be captured and entered into the worksheet found at this location: COST SAVINGS TRACKING (penndot shared\Highway Administration\Deputy Secretary Office\COST SAVINGS TRACKING.)

**CHAPTER 7.26: PENNDOT E-ZPASS PROCEDURES**

This will serve as policy with specific Department guidelines as it relates to PA Turnpike E-ZPass transponder use. This

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****CHAPTER 7.26: PENNDOT E-ZPASS PROCEDURES (Cont'd)**

change will promote a more cost effective and reliable means to utilize the PA Turnpike without incurring out of pocket expense.

The Department is enrolled in the PA Turnpike Commission's (PTC) E-ZPass Program in coordination with the Department of General Services. Included in this policy are procedures and responsibilities as they relate to the assignment and use of the E-ZPass transponders in Central Office and District/County vehicles.

Normal turnpike commuting to and from work is not reimbursable, and is therefore not allowable for E-ZPass use. To avoid an unauthorized charge, remove the E-ZPass transponder from the windshield and place it in the foil pouch provided with the transponder. Transponders are permanently assigned to a vehicle and cannot be temporarily transferred to another vehicle. Personally owned PTC E-ZPass transponders are not allowed to be used in Department vehicles.

An E-ZPass transponder may be assigned to any pool or permanently assigned vehicle at the discretion of the District Executive. In conjunction with the assignment of the E-ZPass device, the new M-805 form which includes the E-ZPass Indicator Column must accompany the assignment of the device. Prior to an employee being assigned a state vehicle equipped with an E-ZPass transponder, it is the responsibility of the Supervisor/Manager to ensure that the employee has completed and signed the Commonwealth of Pennsylvania E-ZPass Use Agreement and the PennDOT E-ZPass Use Agreement. The signed original copies must be placed in the employee's Official Personnel File (OPF) with a copy of both to be kept on file by the local coordinator.

**Central Office E-ZPass Procedures - Assigned Vehicles Equipped with E-ZPass**

**Central Office Automotive Officers:** While creating each monthly M-805 for Central Office vehicles assigned to an Organization, but operated as a pool vehicle:

1. It is the Automotive Officers responsibility to record the E-ZPass transponder number on every M-805 for each pool vehicle on or before the first work day of each month.
2. It is each Central Automotive Officers responsibility to keep a list of existing E-ZPass users and the signed E-ZPass Use Agreement on file for their corresponding Organization.
3. It will be the Central Garage Manager's responsibility to have all registered Central Office pool car users complete an E-ZPass Use Agreement. The signed user agreements will be kept on file in the Central Office Garage.
4. It will be the Central Garage Manager's responsibility to have all walk in customers requiring a pool vehicle complete an E-ZPass Use Agreement. The signed user agreements will be kept on file in the Central Office garage.

**Central Office Assigned Vehicles equipped with E-ZPass:** A Central Office Fleet Garage employee:

1. Will access the PTC E-ZPass website between the 5th and 10th day of every month and print out the monthly transaction statement.
2. This statement will be forwarded to the appropriate operator for their reconciliation of charges.
3. The operator must review and dispute any inaccurate charges, and when correct, sign and date the statement.
4. The statement will then be forwarded to the E-ZPass operator's Supervisor/Manager for review and final approval with their signature/date, and return the reconciled/reviewed statement to the issuer by the 25th of each month.

**Central Office Pool Car operators which use the PA Turnpike:** The pool vehicle operators must:

1. Properly complete the newly modified M-805 form created for pool car use, which now contains additional information blocks to record E-ZPass transponder information and activity.
2. Central Office Garage personnel must enter the correct E-ZPass transponder number at the top of the E-ZPass column.

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **CHAPTER 7.26: PENNDOT E-ZPASS PROCEDURES (Cont'd)**

3. The operator will insert a check mark in the box in the E-ZPass indicator column of the M-805, and sign the corresponding line identifying the day which the PA Turnpike E-ZPass activity occurred.
4. The operator's signature will be used to verify and reconcile Turnpike charges. The required addition of the check mark in the E-ZPass column confirms use of the PA Turnpike and is mandatory for reconciliation of transponder activity.

**Central Office employees designated to monitor and reconcile pool vehicle E-ZPass:** After the 5th day of each month:

1. An assigned Central Office clerk will receive, print, review and reconcile a Turnpike Transponder Activity Report for Central Office pool vehicles, and verify Turnpike activity versus the M-805 entries.
2. Once all activity is verified and correct, the report will be signed and approved by the office clerk/reconciler, and forwarded to their Supervisor or Manager for signature.
3. The Supervisor/Manager must then review, sign, and forward the Turnpike Transponder Activity Report to the Central Office employee whom issued the report by the 25th day of the month.

#### **District/County E-ZPass Procedures - Assigned Vehicles Equipped with E-ZPass**

**District Office Automotive Officers:** While creating each monthly M-805 for District pool vehicles:

1. It is the District Automotive Officer's responsibility to record the E-ZPass transponder number on every M-805 for each pool vehicle on or before the first work day of each month.

**District Office and County Assigned Vehicles equipped with E-ZPass:** A District Office employee:

1. Will access the PTC E-ZPass website between the 5th and 10th day of every month and print out the monthly transaction statement.
2. This statement will be forwarded to the appropriate operator for their reconciliation of charges.
3. The operator must review and dispute any inaccurate charges, and when correct, sign and date the statement.
4. The statement will then be forwarded to the E-ZPass operator's Supervisor/Manager for review and final approval with their signature/date, and return the reconciled/reviewed statement to the issuer by the 25th of each month.

**District and County Pool Car operators which use the PA Turnpike:** The pool vehicle operators must:

1. Properly complete the newly modified M-805 form created for pool car use, which now contains additional information blocks to record E-ZPass transponder information and activity.
2. The Automotive Officer for District/County pool vehicles must verify and enter the correct E-ZPass transponder number at the top of the E-ZPass column.
3. The operator will insert a check mark in the box in the E-ZPass column of the M-805, and sign the corresponding line identifying the day which the PA Turnpike E-ZPass activity occurred.
4. The operator's signature will be used to verify and reconcile Turnpike charges. The required addition of the check mark in the E-ZPass column confirms use of the PA Turnpike and is mandatory for reconciliation of transponder activity.

**NOTE:** Although District pool vehicles are not normally assigned to a County, a District pool vehicle may be temporarily assigned to a County organization, but the E-ZPass reconciliation process must still be followed by the District Office.

**District Office employees designated to monitor and reconcile pool vehicle E-ZPass:** After the 5th day of each month,

1. A designated District Office employee will receive, print, review and reconcile a Turnpike Transponder Activity Report for District pool vehicles, and verify Turnpike activity versus the M-805 entries.
2. Once all activity is verified and correct, the report will be signed and approved by the office reconciler, and forwarded to their Supervisor or Manager for signature.

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

3. The Supervisor/Manager must then review, sign, and forward the Turnpike Transponder Activity Report to the District Office employee whom issued the report by the 25th day of the month.

**CHAPTER 7.27: CONE PLACEMENT EQUIPMENT POLICY**

The requirement to wear a safety harness attached to the D-rings is rescinded. The language referencing the use and purchase of safety harnesses has been removed. The reason for this change is that the Bureau of Human Resources, Employee Safety Division, received numerous concerns regarding the Personal Protective Equipment (PPE) requirements and conducted further research. Based on information obtained from the Occupational Safety and Health Administration (OSHA) and the American Traffic Safety Services Association (ATSSA), the requirement to wear a safety harness attached to the D-rings should no longer be considered. Without the harness, a worker would be able to exit a vehicle quickly in the event of an oncoming, errant motor vehicle. The safety of the employees must be considered when using the platforms. While placing/retrieving cones on the platforms, employees may be able to decrease the possibility of injury by holding onto the platform with one (1) hand, or by kneeling.

Soon after delivery of the platforms, installation issues were identified that, in some instances, required the use of a platform mounting adapter. This necessitated the development of an engineering design for the adapter and the creation and execution of a procurement contract. The Fleet Management Division will purchase these adapters as they become available, and supply them to the organizations that have identified the need. The disposal of the existing devices is now based upon the receipt of the platform , or platform and adapter, when required.

The Safety Division, in cooperation with the Fleet Management Division, has reviewed equipment accident and injury statistics related to cone placement operations. It has been determined that preventable injuries have been sustained during these operations. This policy was developed to ensure the use of equipment specifically designed and approved for cone placement and removal. Safe operation and approved equipment is vital to reduce exposure to potential injury.

Cone placement equipment constructed by Department workforces or vendors that are not listed on the approved statewide contract must be removed from service and destroyed. The Fleet Management Division has funded the replacement of all unapproved units currently in service, as reported to the Division in a January 2010 survey. Each replacement unit has been delivered with two (2) sets of receivers so that you may outfit multiple standard crewcabs to accept these platforms. The county organizations will have 30 days from the receipt of the replacement units and adapters (where required) to remove and dismantle ALL unapproved devices currently in service.

**ALL equipment placed into service from the date of this notification forward must be of the approved configuration. At this time, the only approved unit is built by ITI Trailers & Truck Bodies, Inc. and may be purchased from statewide contract #4400006077.** These units are constructed with additional lighting, safety rails, and weight and speed limit restriction labels. These units are removable, therefore, eliminating the need for dedicated cone placement units. They may be interchanged with several vehicles within each County Organization. Please note, provisions are in place within the contract for installation/labor rates for your convenience should you choose to have the mounting outsourced.

Warning labels must be installed on each platform unit and affixed to each mounting vehicle. The label will read as follows:

- 1) Maximum Weight Capacity 500 lbs
- 2) Maximum Speed Limit 10 mph, while occupied

All cone placement equipment units currently on contract are designed to perform cone placement operations from the rear of the vehicle. At no time will any platform be modified/alterd or used in any other position or for any other purpose on any Department vehicle, other than originally authorized by the original manufacturer.

**7.28 FLEET FUEL CARD USAGE**

In accordance with Commonwealth and Department policy, the fuel card is to be used for fueling Department vehicles and/or equipment for Department business only. Also, employees are not permitted to use their Department position and/or property for personal gain, which includes use of the fuel card in conjunction with personal loyalty, rewards or perks



**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****CHAPTER 7.28: FLEET FUEL CARD USAGE (Cont'd)**

cards, PIN numbers or similar programs, which result in any personal gain to the employee, i.e. points, credit or discounts on fuel, food, gift certificates, other merchandise, etc.

Related policy language on this prohibition can be found in the following Commonwealth and Department policies:

- Department of Transportation Working Rules, May 2010
- Executive Order 1980-18 Amended, Code of Conduct
- Manual 230.1, Commonwealth Travel Procedures Manual
- Management Directive 230.10 Amended, Commonwealth Travel Policy

All Department employees are required to receive and sign the Fuel Card Policy and Retail Fueling Guidelines. This includes permanent and temporary staff. The original of the signed policy is to be maintained in the employee's Official Personnel Folder (OPF).

Updated forms can be found on our Website in the Forms Folder and in the Automated Fuel System User Guide and Policy Manual.

**7.29 REASSIGNMENT OF DUMP TRUCKS TO NEW KNOCKOUT HOLDOVER ECC**

This process is for reassignment of dump trucks to the newly created Equipment Classification Codes (ECC) developed for dump trucks identified as Winter Knockout or Holdover units. This process will include creating an SAP M-8 transaction requesting the reassignment to the Knockout/Holdover ECC. The M-8 request can be submitted by the District Equipment Manager or County Equipment Manager classifications and will not require any physical modification of the selected vehicle. The time required to complete the M-8 SAP transaction will be approximately 15 minutes per each unit identified.

It has become necessary to update the means by which the Department can instantaneously provide information to various entities on Fleet Dump Truck quotas. Identifying these Knockout/ Holdover units by ECC will allow for more accurate reporting related to age, usage and anticipated disposal quantities for the spring equipment auction held at the close of each winter season. As each organization receives a new a dump truck from the Fleet Management Division, they will be required to submit a corresponding M-8 Notification within 15 days from the date of receipt of the new dump truck. This notification will request the transition of an existing older dump truck marked for disposal from the standard ECC dump truck code to the corresponding Knockout/Holdover codes noted on the next page;

Standard Dump Truck ECC		Knockout/Holdover ECC	
Single Axle	ECC A15	Single Axle	ECC AK1
Tandem Axle	ECC AA1	Tandem Axle	ECC AK2
Tri-Axle	ECC AA4	Tri-Axle	ECC AK3

Subsequent approval and change of the ECC classification will be completed by the Fleet Management Division in SAP, when this change has been completed; the District or County Organization will continue to retain the vehicle on active inventory until the next available equipment auction is held at the conclusion of the winter season. The District or County will follow the same disposal procedures previously used for disposal of standard ECC dump trucks. Reports will be run to evaluate each Districts ability to maintain appropriate quotas by comparing standard dump truck ECC codes and the corresponding Knockout/Holdover dump truck ECC codes prior to the annual Fleet Model presentation.

**7.30 DOWNED WINTER EQUIPMENT**

Downed winter equipment will be reported by 9:00 am every Friday throughout the Winter season. The winter season will be defined as November 1 through April 15 on an annual basis. District specific spreadsheets are located on the BOMO

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****CHAPTER 7.30: DOWNED WINTER EQUIPMENT (Cont'd)**

Intranet Website. Select Fleet Management Division's tab, then choose the Fleet Management Section to access the shortcut named "Downed Winter Equipment". The file may also be accessed using the following [Downed Winter Equipment link](#). It will be the District Equipment Manager's responsibility, or their designee, to ensure the respective District spreadsheet is completed on a weekly basis throughout the winter season.

The following information must be populated in the spreadsheet; the equipment number along with a description of that unit, the reason it will not be available, how that particular unit/route will be covered, and when it will be back in operation. An example of a unit that would not need to be reported, is a unit that is in for a PM but would be available for an event. You will only be required to report units that would not be available for a winter event. This would include snow removal trucks, loaders, graders, and snowblowers.

**7.31 REPORT IMPROPER USE-ABUSE OF STATE OWNED VEHICLES**

This policy outlines the process for addressing misuse of state owned vehicle complaints and is effective immediately. This serves as policy with specific guidelines, and may require 1 to 2 hours per event where investigation and follow-up memo is required.

The investigation is to be completed within ten (10) working days from notification of the initial complaint with written response to follow.

**MISUSE OF STATE VEHICLE PROCESS MAP**

- 1) Input received from DGS (Governor's Hotline) or email/letter complaint from citizen.
- 2) Determination is made as to the "owner" of the vehicle (Bureau/District/Org) or the Agency.
- 3) Notification is sent by the Fleet Management Division to the owning organization with instructions to investigate and report back findings.
- 4) Owning Organization identifies operator of the vehicle on the date of alleged infraction and conducts investigation.
- 5) Owning Organization reports back to the Fleet Management Division with findings (See attached example).
- 6) Fleet Management Division will report back to DGS that investigation was conducted and appropriate action has/will be taken.
- 7) Utilizing the findings of the initial investigation, the owning organization, working in conjunction with their respective HR Office determines if a PDC is appropriate.
- 8) If appropriate, PDC is conducted. Findings reviewed and discipline issued as determined by and in alignment with disciplinary standards of the Bureau of Human Resources.

**7.32 NEW HIRE TEOA CERTIFICATION**

Due to the high influx of newly hired TEOA's we are experiencing a large backlog of students at the training sites for Truck and Loader classes. In order to alleviate any potential staffing problems during winter operations, this year we are allowing the districts to certify new hires as they would a temporary operator prior to them attending class at one of the sites.

To qualify the employee must have a Truck and Loader Course training date at one of the training sites later than December 15th of the current year and the District must use the current winter temporary operator training and certification criteria to train and certify the employee. This policy does not excuse the employee from the requirement for Truck and Loader training and certification in their six month probationary period.



## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.33 THIS SECTION INTENTIONALLY LEFT BLANK.**

### **7.34 DISCRETIONARY SPENDING FOR EQUIPMENT RELATED ISSUES**

This is to serve as direction that discretionary spending for equipment “add-ons” is to cease immediately. All future purchases must be based upon “needs”. Items that are being added to new or used equipment at the County or District maintenance facilities that are not necessary to the support and efficiency of the operations will not be purchased. These items include splash guards, bug deflectors, running boards, bed covers, caps, to name a few. These items are not all inclusive. Managers should review all discretionary spending.

Please ensure that this message is distributed to all field and equipment Managers and Supervisors throughout our organization and that the purchase of all discretionary items cease immediately. Thank you in advance for your cooperation in this matter.

### **7.35 SPARE ATTENUATORS AT THE FLEET MANAGEMENT DIVISION**

The Fleet Management Division will be maintaining a total of five (5) attenuators on inventory, one (1) truck mounted, ECN 001130, and four (4) of the trailer type, ECN 001366. In order to acquire one of these attenuators, submit a request from the Assistant District Executive - Maintenance to the Director of BOMO along with an order form showing the

County has ordered a new unit to replace the spare being received from the Fleet Management Division. These units will be held at the Fleet Management Division. These are meant to be immediate replacements for units of total loss.

### **7.36 DIESEL PARTICULATE FILTER CLEANING PROCEDURES**

The following is the proper procedure for scheduling, cleaning, and ordering of DPF parts and materials through the Fleet Management Division.

#### **10 Step Ordering Process**

Step #1- Number 3 DPF Cleaning Notification (assembly #813-8315-01) is system generated by SAP for a time based DPF cleaning at the four (4) year interval.

~OR~

A county experiences: DPF performance problems, excessive corrosion, diagnostic trouble codes or excessive DPF regenerations.

Step #2- The county must complete a DPF Request Form; Attachment “1”, which can be located at the Fleet Management Division website under the Component Remanufacture link. The form must be emailed to PD-DPF Cleaning and Replacement for Fleet Management Division review.

DPF removal must not be performed until Fleet Management Division authorizes DPF removal.

Step #3- The Fleet Management Division reviews the DPF Request Form and contacts the county to schedule DPF cleaning and or replacement. If a DPF cleaning or replacement is made at any other time than during a scheduled number 3 DPF cleaning, the county must notify the RPC at the Fleet Management Division to request the number 3 DPF cleaning plan is reset.

A) In months of non-winter operation (April – November), the used defective Filter or defective Stack Assembly must be submitted to Fleet Management Division BEFORE the new parts will be shipped to the county.

B) In the months of winter operation (November – April), replacement Filter or replacement Stack Assembly and related parts will be shipped to the county. The county must return core items within one (1) week of receiving the replacement parts.

## **CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)**

### **7.36 DIESEL PARTICULATE FILTER CLEANING PROCEDURES (Cont'd)**

Step #4- The county removes the Filter or Stack Assembly and observes process "A" or "B" of Step number 3 in this bulletin, while referencing to Attachment "2"; DPF Removal Instructions, or Attachment "3"; DPF Filter Cartridge Removal Instructions. The county is to ship only the items requiring cleaning or exchange.

Step #5- The District Pony Driver or county personnel travels to the Fleet Management Division Warehouse with a copy of the DPF Request Form, and issues it to the warehouse personnel. The Fleet Management Division DPF cleaning technicians will inspect and clean inbound filters. Once a filter is acceptable for reuse or it is rejected due to faults or corrosion, the Fleet Management Division Mechanic Supervisor will contact the county, and instruct which replacement parts and material number must be ordered. Material Numbers are based and located on the suggested material order table. Please reference Attachment "4"; identifying suggested material numbers & order quantities.

Step #6- The county must immediately place a DPF Material Stock Transfer Order (STO)/Requisition (PREQ) from the Fleet Management Division Warehouse. In order for the required parts to be approved to ship, a screen shot display of the completed notification number of the STO/PREQ must be emailed to the Fleet Management Warehouse. Parts will then be issued to the driver and shipped to the county.

Step #7- The county receives the DPF (STO/PREQ) components and cleaned DPF or Replaced Filter/Stack Assembly and reassembles the truck.

Step #8- (Mack Only)-The county performs Soot Ratio Reset procedures utilizing Mack Premium Tech Tool to reset Soot level. Please see Attachment "5" for step-by-step Soot Ratio Reset instructions. ~OR~ (Navistar Only)-The county performs an "Onboard Filter Cleanliness Test", using ServiceMaxx software. See pages 13-19 of Attachment "6" for the step-by-step "Onboard Filter Cleanliness Test" procedure. This procedure should be performed after any change in DPF componentry.

Step #9- The county must identify the DPF Core Components removed by marking the body of the core component with the Equipment Number and four (4) digit organization code. A copy of the DPF Request Form used to order the new Stack

Assembly must also be attached to the core when it is returned to Fleet Management Division. The Filter or Stack Assembly must be mounted securely to a pallet or in a shipping container to protect the components during the shipping process.

Step #10- The County ships the core items(s) to Fleet Management Division by District Pony Truck or county personnel. Core items being exchanged or returned must be delivered to the Mechanic Supervisor, at the Fleet Management Division Component Remanufacture Shop.

All DPF components must be secured during transit. Stacks and Cartridges are fragile, and will be damaged if not shipped securely.

NOTE: A DPF maintenance plan for assembly #813-8315-01 may only be adjusted or moved after the initial cleaning has been performed.

The DPF Components listed below must be retained for reassembly of the DPF system by the county organization performing the removal.

2008-2010 Mack Dump Truck Stack Assemblies – Material Number 327308; Replacement Assemblies contain new fittings, hardware and wiring harness. The only items, which are recommended to be removed and retained by the county for possible re-use are; the NOx sensor and the Spark Arrestor. NOx sensors and Spark Arrestors are not included with a new Stack Assembly. The Fleet Management Warehouse does not stock these items but they are available from Mack O.E.M. parts contract holder, Legacy Truck Centers Inc.

**CHAPTER 7: MISCELLANEOUS POLICIES (Cont'd)****7.36 DIESEL PARTICULATE FILTER CLEANING PROCEDURES (Cont'd)**

**Caution:** Remove only the items necessary to complete disassembly. Take care to observe standard precautions prior to disassembly to reduce damage to rusted or seized components. Extra caution during this process will reduce damage to parts and lower the overall repair expense.

**County Garage Support**

Troubleshooting, diagnostic and technical support will also be provided through the Fleet Management Division. Please contact Fleet Shop Equipment Manager; and Component Remanufacture Mechanic Supervisor, or the Mechanic Training Department personnel.

In addition to the instructional pamphlet, a link is available on the BOMO/Fleet Management Division Website. The necessary step-by-step instructions and screen shots to perform the Ash/Soot level reset using Mack Premium Tech Tool are explained there. Attached to this document are the procedural instructions for the steps required to correctly reset DPF Ash/Soot levels. This must be performed at each DPF cleaning, or complete stack replacement on Mack Chassis.

Additional DPF cleaning services are available for Ford Diesel Powered Trucks, off road equipment, and miscellaneous seasonal equipment. It is highly recommended that seasonal equipment, such as Paint Trucks have routine DPF Filter maintenance performed during the off-season months to limit downtime during peak Roadway Maintenance Seasons. Contact the Component Remanufacturing Section for scheduling and availability at 717-787-6565.

**7.37 AUTOMATED VEHICLE LOCATION (AVL) DEVICES**

AVL devices are factory-installed in all new dump trucks to provide location and spreader controller information. All dump trucks are equipped with modems that transmit data from spreader controllers to a centralized system to capture vehicle movement and winter material usage. AVL equipment may be installed in other vehicles at a supervisor's request and with management approval. It is important that this equipment is well-maintained and operational at all times for, not only operational analysis purposes, but also in the interest of operator safety and situational awareness.

**TROUBLESHOOTING, REPAIR AND REPLACEMENT OF AVL EQUIPMENT**

**Please make every effort to troubleshoot and resolve AVL issues on-site before sending AVL equipment to FMD. Troubleshooting AVL hardware should be performed as follows:**

County mechanic performs hands-on troubleshooting, ensuring cables are secure and working properly and the vehicle is positioned where it has sufficient mobile and GPS signal. Mechanic may also contact the AVL vendor's technical support to aid in field troubleshooting.

If no resolution can be reached by the mechanic, they should contact the AVL Administrator to state specific findings (i.e. indicator lights, battery defects, SD or SIM card defects, wiring or connection defects, etc.). The AVL Administrator will make recommendations if possible.

If the AVL Administrator cannot assist with resolving the issue, the AVL Administrator may instruct the mechanic to remove the AVL hardware and send it to FMD. The AVL Administrator will email a document stating the problem and findings **discussed with the mechanic. This document should be printed and packaged with the hardware when sending to FMD. Failure to include the required documentation may result in unnecessary delays in the repair or replacement of the defective equipment.** A replacement AVL device will not be issued unless a faulty device is first sent to the AVL Administrator.

If the AVL Administrator provides a replacement device, the mechanic must follow the necessary procedures for installation, including the Locator Replacement transaction on the AVL vendor's website (see AVL Diagnostics Manual for more details). **Failure to perform the Locator Replacement transaction on the AVL vendor's website will result in misnamed vehicles in the AVL website and inventory tracking conflicts.**

Refer to the AVL Diagnostics Manual for additional troubleshooting details.

**No spare devices will be issued and all unused AVL devices must be returned to the AVL Administrator upon disconnection.**

#### PROCUREMENT OF REPLACEMENT AVL PERIPHERALS

Counties are responsible for the procurement of AVL peripherals including, but not limited to cellular and GPS antennas and power and data cables. All of these components are available on statewide contracts from one or more vendors. Garage and procurement staff may contact the AVL Administrator to confirm compatibility with AVL equipment before purchasing. The AVL Administrator does not keep these components on-hand to distribute.

#### ISSUANCE OF AVL DEVICES TO THIRD-PARTIES

AVL devices will be provided to third-parties such as contracted winter maintenance and Freeway Service Patrol (FSP) vendors. Contract managers are responsible for submitting written requests to the AVL Administrator for devices and must include contract quantities to verify the number of devices to issue. The AVL Administrator may contact contract managers if there is an apparent contractor device malfunction based on reported data.

The AVL Administrator annually reviews data from the Snow Route Planning Application (SRPA) to verify the number of devices needed in each county and issues no more than one device per truck listed in the SRPA. If there are discrepancies between data in the SRPA and a county's request, the county must first reconcile the SRPA information before devices will be issued. Devices will only be issued based on valid vendor agreement information.

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS**

**Policy:** It is the policy of the Department of Transportation that personnel must have appropriate training prior to operation of Department owned or leased motorized equipment as set forth in the following requirements

**Purpose:** Equipment Operator Training is essential to the Department and provides the following benefits:

1. Efficient operation of the equipment for the purpose intended.
2. Extended vehicle service life and value.
3. Reduction in the frequency and severity of accidents.
4. Lower operating cost of the equipment.
5. Instills pride and professionalism in Department Equipment Operators.

### **ASSIGNMENT OF RESPONSIBILITY:**

1. DISTRICT ENGINEER
  - a. Has overall responsibility for all equipment operator training in the Engineering District. Ensures Defensive Driving Courses are conducted consistent with the Department's training manual requirements.
2. ASSISTANT DISTRICT ENGINEER FOR MAINTENANCE OR BUREAU DIRECTOR
  - a. Is directly responsible for carrying out the program in the District or Bureau.
  - b. Provides guidance and assistance to the County Maintenance Manager and keeps the District Engineer informed regarding program status.
3. DISTRICT EQUIPMENT MANAGER
  - a. Assures equipment operator instructors are trained as instructors, and initiates, with follow-up, the Operator Instructor Certification as outlined later in this chapter.
  - b. Ensures certification training and testing is performed consistently with Department policy. Completes the certification evaluation form.
  - c. Immediately upon satisfactory completion of certification testing as required in Pub. 235 Equipment Operator Instructor's Manual, signs the 373A, evaluation form if applicable, the appropriate entry on the individuals certification card, and the Certificate of Training.
  - d. Ensures that the 373A and certification evaluation form, if applicable is submitted to the District Training Coordinator.
  - e. Provides adequate Equipment Operator Instructors to support training of "CORE" equipment at the Regional Training Facilities.
  - f. Provides adequate additional equipment to support oversized classes and non core training classes held at the training sites.
4. DISTRICT TRAINING COORDINATOR
  - a. Provides necessary assistance to County Maintenance Manager and instructors.
  - b. Maintains up-to-date records of training planned or completed and current lists of certified operators.
  - c. Works with the District Equipment Manager and County Maintenance Managers to determine the need for training and certification programs.
5. DISTRICT SAFETY COORDINATOR
  - a. Advises Operator Instructors on special hazards of each type of equipment.

**NOTE:** Certification testing is to be completed within guidelines of the Master Agreement, Maintenance and Trades Appendix, Training.

**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS (Cont'd)**

**ASSIGNMENT OF RESPONSIBILITY: (Cont'd)**

**6. COUNTY EQUIPMENT MANAGER**

- a. Provides names of all newly hired equipment operators to the District Equipment Manager along with their employee number and date hired on full time to be scheduled for training at one of the two training sites. Inform if student is on permit.
- b. Provides additional equipment and instructors to the training sites as needed.
- c. Maintains an up to date OPU count and provides the names and employee numbers of the students next in line to be offered a training slot to the District Equipment Manager. The District Equipment Manager will then compile the requests from their counties and submit a list of names to the Training Site Administrator for scheduling.
- d. Assists the District Equipment Manager with student's certifications when requested.

**7. BUREAU OF MAINTENANCE & OPERATIONS, FLEET MANAGEMENT DIVISION**

- a. Provides advice and assistance to the District regarding Equipment Operator training and certification.
- b. Regional Equipment Managers will conduct certification examinations for all equipment operators within the Central Office Organization and for Districts upon request.
- c. Upon satisfactory completion of the "CORE" Equipment Training, signs and initials the evaluation form (only for those trainees that have successfully passed the "CORE" training, i.e. Truck/Loader), and Diploma and forwards to District Training Coordinator/District Equipment Manager. For students that have failed to successfully pass the designated "CORE" test, notification to the District Equipment Manager will be made within 8 working hours of class completion.
- d. Provides scheduling, notification and confirmation for all student nominations.
- e. Furnishes training materials to the Training Coordinator upon request. These will include course outlines, training plans and any other material considered necessary.
- f. Enters all certifications in LSO for any equipment training provided by one of the training sites. All instructors in training or county instructors being utilized by the training site as needed, will have their training added to their employee training record in LSO.

**8. MECH TECH COMMITTEE**

- a. Establishes policies for Training and Certification Programs for Transportation Equipment Operators statewide. Reviews and approves all Transportation Equipment Operator Training and Certification Programs.
- b. Develops all lesson plans and updates for Equipment Operator Pub 235.

**9. HIGHWAY ADMINISTRATION TRAINING, WORKFORCE DEVELOPMENT**

- a. Provides, in coordination with the Fleet Management Division, any necessary assistance in conducting the training of Operator Instructors.
- b. Administers the computerized certification records which contain all validated certifications. The records system will list all certified operators, by District, County and Bureau.

This system will be official record and approval for personnel actions will be based on these records.



## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS (Cont'd)**

### **PLANNING FOR TRAINING**

1. Upon determination by the Assistant District Engineer for Maintenance or the County Maintenance Manager that a shortage of qualified Equipment Operators exist, or will occur, candidates are to be scheduled for training on the specified equipment.
2. Potential Operators: Potential operators must be trained and certified. Training must be offered in accordance with the terms of the union contract. Certification does not ensure promotion. It does enhance eligibility for promotion.
3. Cross-Training: Certified Equipment Operators should be encouraged to achieve certification in the operation of several types of equipment within their capability as required by the needs of the County.
4. Previously Certified Operators: Certified operators who leave the Department and return within a six-month period will not require re-certification. If the departure is for a period of more than six months, re-certification may be required. Each case should be referred to the Central Office Training Unit for resolution.

### **TRAINING CATEGORIES**

Essentially, there are four types of training as listed below. The definition and specific needs or requirements are explained for each type.

- Safe Driver Training
- Certification Training
- Refresher Training
- New Equipment Orientation Training / Familiarization Training

#### **1. Safe Driver Training.**

The safe driver training course is required of all Commonwealth employees who will operate any Department owned or leased vehicles.

- a. Employees in positions that will not drive Crew cabs or vehicles requiring a CDL license must take the web based course. This course is required to be re-taken every four (4) years.
- b. Employees in positions that will operate Crew cabs or vehicles requiring a CDL license must take the Instructor lead course. This course is required to be re-taken every two (2) years.

The safe driver course must be completed or scheduled for first available course prior to driving Department equipment. This Course will be given by the District or County before the student attends a Regional Training Site for Truck/Loader Training. Successful completion of the instructor led safe driver course is essential to be considered for passing the Truck/Loader Class.

#### **2. CERTIFICATION TRAINING**

The Department has identified many types of equipment which because of the complexity, cost of investment, and/or safety needs require certification prior to an employee operating this equipment.

Certification is a process of planned, structured training with objectives to be met in order for one to be "certified" as competent and safe to operate the equipment.

Certification on truck, loader, grader, backhoe, and excavator have been identified as "CORE" equipment which are (1) essential to numerous maintenance operations (2) are costly and complex in nature (3) require extensive training for proficiency and safety awareness.

As such the training on this equipment is highly structured, demanding and must be completed at a designated regional training facility.

Certification on non "CORE" units, i.e. rollers, oil distributors, stone chipper, etc. also require a structured program and will be taught at a designated, controlled facility or field operation within the District.

Mandatory training objectives and requirements for all types of equipment requiring certification are contained in Pub.235, Equipment Operator Instructors Manual.



**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS (Cont'd)**

**TRAINING CATEGORIES (Cont'd)**

**2. CERTIFICATION TRAINING (Cont'd)**

**A. Select Trainees**

- a. Uncertified Equipment Operators
- b. Additional certification as necessary to ensure availability of backup operators.
- c. Certifications required to qualify for classification or promotion.

**B. Select Instructor(s)**

- a. The Instructor should be fully competent and certified to operate the type of equipment to be taught. Employees who regularly operate the equipment are preferred. However, an OI who is not certified on the equipment may still present the Safety, Pre-Trip, and necessary paperwork (classroom and other) portions of the training. But, the Certified Operator must do the actual operational portion of the training. They both must sign off on the concluding paperwork.
- b. Talent for teaching, willing to help people learn.
- c. Completion of Instructor Development, Shadow Instructor, and Final Phase. Upon completion of the three phases, teach to the Training Site Administrator, Site Instructor, and students satisfaction.

**C. Establish training location and guidelines for the Equipment Operator Instructors.**

**D. Assign Trainee to Instructor for On-the-Job Training**

- a. Get daily progress report, update estimate of time required to qualify. Instructor records all training on Training Attendance Report (373A).
- b. Issue Operator's Manual to be studied and discussed with the trainee.
- c. Trainee's skills to be evaluated off the road and off the job as necessary to ensure safety and efficiency.
- d. Operational training, including special hazards and daily maintenance, to be conducted in the course of instructor's daily operations.
- e. Schedule trainee to attend a Defensive Driving Course if not completed.
- f. When trainee has completed training per Pub. 235, instructor will submit Form 373A to District Equipment Manager/Training Coordinator who will schedule the Final Test.

**3. REFRESHER TRAINING**

Refresher training may be necessary for equipment operators who are already certified on a type of equipment but have not operated that equipment for an extended period of time. The County should be aware of its needs in this area and schedule refresher training for operators to meet the work requirements and maintain a safe work environment.

**4. NEW EQUIPMENT ORIENTATION/FAMILIARIZATION TRAINING**

When a county receives new equipment, the unit and the equipment operator's manual are to be reviewed, studied by an experienced equipment operator instructor and a manufacturer's representative when possible. With very few exceptions training from the manufacturer is provided upon request or is established with the delivery of new equipment.

An orientation program for the operators of this equipment is to be presented to insure proper and safe operation.

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS (Cont'd)**

### **4. NEW EQUIPMENT ORIENTATION/FAMILIARIZATION TRAINING (cont'd)**

Training as a familiarization endeavor must be completed and documented for equipment and tools of the following types.

• Chain Saw	• Generator Sets (To include arrow boards)
• Post Hole Digger	• Sewer Cleaner
• Jack Hammer	• Water Pump
• Battery Charging	• Tar Buggies
• Handling of Anti-Skid	• Load Securement (to include loading and unloading equipment)
• Forklifts	
• Steam Cleaners	• Lawn Mowers (push / ride)
• Tire Mounting/Dismounting & Balancing Machines	• Storage Tank
• Welding/AC-DC & Dry-Acetylene	• Use of Ladders
• Cement Mixer	• Post/Rail Straightener
• General Towing	• Training deemed necessary by County/District

**NOTE:** This list includes examples and is not intended to be all inclusive. Some equipment requiring familiarization training have curriculums in PUB 235.

### **CERTIFIED EQUIPMENT OPERATOR INSTRUCTOR**

To be certified as an instructor requires FULL completion of an instructor development course and a satisfactory evaluation of teaching skills by the District and the Fleet Management Division. All operator instructors are required to have a CWOPA I.D. with an active email account.

The following requirements have been established in an effort to standardize a policy for authorized Instructor Certification. To be certified, the instructor must meet the following criteria:

1. Complete the instructor course (INSTRDEV) given by the Highway Administration Training. This course consists of approximately 30 hours of practice teaching and classroom instruction.
2. Serve as an assistant shadow instructor for one complete core equipment course at one of the authorized Training Facilities as approved by the Fleet Management Division. The instructor trainee must be evaluated as satisfactory by the Training Site Administrator utilizing the necessary evaluation forms. Upon completion of the rating sheet, it will be submitted to the District Equipment Manager for assessment and recording.
3. Phase 3 - Final Equipment Operator Instructor Qualification (2 weeks) - The final phase of the process requires trainee to return to one of the Training Sites (EPTF or WPTA) for two weeks to actually instruct students on truck and loader. The Site Administrator is responsible for overseeing the new Instructor and ensuring the training is properly completed in accordance with PennDOT policies. The trainee will be evaluated by the Site Instructors, the Site Administrator, and the students attending the class at the Training Site using the approved forms.
4. All steps and classes taught must be documented on the instructors training records in LSO.
5. Train, at a minimum, two (2) complete classes per calendar year at the District/County or Training Site to remain certified. Satisfactory evaluations by District Equipment personnel will be retained in the employee's instructor file.
6. A complete file on each individual instructor will be maintained and monitored by the District.
7. Upon satisfactory completion of the above requirements of the instructor training course, a certificate of training and instructor decals will be issued by the Training Site Administrator, for the instructor. The decals may be worn on the sides of the instructor's hard hat.

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS**

### **CERTIFIED EQUIPMENT OPERATOR INSTRUCTOR (Cont'd)**

Operator Instructors (county level) should be used to conduct:

1. Certification Training.
2. Transition Training (from one make and model to another).
3. Remedial Training (where accident, breakdown, or other indication suggests the need).
4. Progressive Training (additional skills on the same equipment).
5. Refresher Training (periodic check rides, as a minimum, to detect and correct any errors in operating techniques).
6. Temporary winter equipment operators.

### **EQUIPMENT OPERATOR INSTRUCTOR MANUAL PUB. 235**

The Equipment Operator Instructor Manual was developed for the purpose of standardizing the training within the Department of Transportation for operator training on various pieces of equipment. Training procedures requirements and lesson plans are outlined in the Equipment Operator Instructor Training Manual.

The Equipment Operator Instructor Manual will also serve as a standard for all instructors to follow. This manual only covers the minimum standards of the subject in an effort not to limit instructor creativity.

**NOTE:** It is mandatory that, as a minimum, the entire course must be covered by all equipment operator instructors.

### **TRAINING FACILITIES**

The Eastern Pennsylvania Training Facility (EPTF), and the Western PA Training Academy (WPTA) are the permanent designated training sites for all core equipment as follows:

- A. Truck/Loader
- B. Backhoe
- C. Grader
- D. Excavator

Additional equipment may be designated as required.

### **EQUIPMENT OPERATOR INSTRUCTOR TRAINING AND QUALIFICATION PROCEDURES**

This document outlines the qualification process to become an Equipment Operator Instructor. To ensure the quality of our instructors and the safety of all new operators, all three phases must be completed in its entirety. The expectation is that no employee will be qualified to perform operator instructor duties by training operators on non-core equipment until such time as all three phases of the qualification are completed to the satisfaction of Fleet Management.

#### **THIS QUALIFICATION PROCESS IS A JOB REQUIREMENT FOR ALL TEOS OPERATORS**

Non- TEOS volunteers opting to be an instructor must have at least two years of experience in operating equipment; have no Safety Violations within the last 2 years, a satisfactory or above rating on the last EPR and possess a willingness to teach others.

Questions regarding these procedures are to be directed to the Fleet Management Administrative Section Chief

**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS (Cont'd)**

**EQUIPMENT OPERATOR INSTRUCTOR TRAINING AND QUALIFICATION PROCEDURES (Cont'd)**

**Phase 1 - Equipment Operator Instructor Development Classroom Instruction (4 days)**

Instructor development is conducted for four (4) days at the training sites for interested operators or any newly appointed Transportation Equipment Operator Specialist "S" operators. This classroom curriculum is presented by Highway Administration Training to teach the trainee instructors how to effectively communicate and provide clear instructions to new operators. The trainee must present and pass the oral presentation at the end of the training session. The presentation is scored by one representative from Highway Administration Training and one representative from Fleet Management. The score determines the following:

- 1) if the trainee is able to demonstrate lessons learned from Phase 1 in order to conduct a work-related presentation, if so, the trainee can proceed to Phase 2 of training;
- 2) if the trainee demonstrates most of the lessons learned however further instruction is needed prior to proceeding to Phase 2;
- 3) or if the trainee is ineffective in communicating and presenting clear instructions.

This decision by Highway Administration Training and Fleet Management is considered final and determines if the trainee moves onto the second phase. Note: See Attachment #1 Form M-694 - Instructor Evaluation Form.

Upon successful completion of Phase 1 Instructor Development, the trainee is to be scheduled to participate in Phase 2 Shadow Instructor within three months of completion of Phase 1 (training does not need to occur within three months only scheduling of the training). County Management from the trainee's home county is responsible for contacting and scheduling Phase 2 with the appropriate training site location. If shadow training is not scheduled within three months of completion of Instructor Development, Fleet Management reserves the right to require the trainee to re-attend Phase 1 of the training program.

**Phase 2 - Shadow Instructions for two weeks at EPTF or WPTA (2 weeks)**

After the trainee has successfully completed all the necessary requirements of the classroom instruction in Phase 1; they will proceed to two weeks of shadowing a Training Site Operator Instructor at one of the Fleet Management training sites (EPTF or WPTA). During this two-week period, the trainee will assist and experience first-hand how a site operator instructor trains a new operator for the truck and loader training programs. The trainee will observe both the classroom instruction and the hands-on truck and loader training utilized for new operators at the training sites.

The Operator Instructor and the Site Administrator are responsible for ensuring the trainee receives the proper training to be fully prepared for the final qualification phase wherein the trainee actually instructs a new student on the safe and proficient operation of a truck and loader. At the end of each training day throughout Phase 2, the Site Instructor mentor and the instructor trainee will review the day's activities. These discussions will be used to evaluate the trainee's progress and recognize any areas for improvement. ( Note: See Attachment #2 Form M-695 - Instructor Evaluation-**Shadow**).

Prior to instructing a student, the trainee must first fully demonstrate to the satisfaction of the Site Administrator or their designee, that the trainee can effectively operate a truck/loader by identifying all parts of the truck and loader; perform an airbrake test, and skillfully drive the road course. ( Note : See Attachments #3 Form M-696 -Prerequisite Skills Evaluation Form). If the trainee fails to demonstrate these skills as listed on the Prerequisite Skills Evaluation form, they will not be permitted to proceed to Phase 3.

The Results from the Prerequisite Skills Evaluation form and the Shadow Instructor Evaluation Form completed during the two weeks shadowing period completed by the Site Instructors, Site Administrator and the attending students will be compiled for review with the Fleet Management Technical Training Manager or designee. The results of the review will determine if the trainee proceeds to Phase 3.

Note: The trainee is not considered a qualified instructor at this point; therefore, they are not permitted to independently instruct another employee on any piece of equipment.

**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS****CERTIFIED EQUIPMENT OPERATOR INSTRUCTOR (Cont'd)****Phase 3 – Final Equipment Operator Instructor Qualification (2 weeks)**

Final phase of the process requires the trainee to return to one of the training sites (EPTF or WPTA) for two weeks to actually instruct a student on Truck and Loader. This phase consists of two parts:

- 1) Review of the Prerequisite Skills Evaluation Form. This is required to ensure the Instructor trainee has a complete understanding of the importance of these skills. The trainee must be able to pass all steps on the form.  
( Note: Attachment #3 Form M-696 - Prerequisite Skills Form.)
- 2) The trainee, as a new Equipment Operator Instructor, must satisfactorily demonstrate their actual instruction skills by teaching a two-week class, one-on-one in the truck with a new student. The Site Administrator is responsible for overseeing the new instructor and ensuring the training is properly completed in accordance with PennDOT policies. The trainee will be evaluated by the Site Instructors, the Site Administrator and the students attending class at the training site. ( Note: Attachment #4 Form M-697 - Instructor Evaluation FINAL ).

Final qualification is achieved when the trainee (as a new Equipment Operator Instructor) receives the following: 1) satisfactory or above average comments from Site Instructors on the proficiency of the trainee's daily duties, 2) an overall satisfactory or above evaluation from the Site Administrator on the trainee's complete training performance; and 3) satisfactory or above average evaluations from the students. In the event of a disagreement among the evaluators, the Fleet Management Administrative Section Chief and the students District Equipment Manager (DEM) will review the evaluations to make a final determination. The qualification decision is considered final and determines if the trainee will now serve the Department of Transportation as an Equipment Operator Instructor.

Upon satisfactorily completing all three phases, the Technical Training Manager and/or Administrative Section Chief or designee, will deem the trainee as successfully achieving qualification as an Equipment Operator Instructor. Additionally, an entry reflecting the instructor designation will be made on the employee's M610 by the Training Site Administrator. The Learning Solution (LSO) training record will be updated to reflect the earned Instructor qualification. The new Instructor will also receive the PENNDOT OI decal to apply to their hardhat which identifies them as a certified Operator Instructor.

The new Equipment Operator Instructor will be required to complete a course evaluation and return it to the Fleet Management Administration Section manager or their designee. (Note: See Attachment #5 Form M-698 - Feedback Form)

All appeals to this qualification process or requests to repeat any phase of the training programs must be submitted directly in writing or via e-mail to: Chief of Fleet Management Division, 1700 Arsenal Boulevard, Harrisburg, PA at 717-787-2110.

Note: The Attachments #1 thru #5 can be found in the Equipment Operator Instructor Training Procedures tab on the BOMO Website.

**OPERATORS****OPERATOR PER UNIT (OPU) GUIDELINES**

The Operator Per Unit (OPU) Guidelines replace the previously established Equipment Operator Ratio (E-O-R). The guideline is a scale based guide that decreases the number of OPU's as the number of domiciled units of any type increases. There is no longer "minimum" or a "maximum" number identified. Instead, there is a "permissible" number identified. This does not mean that a county organization must attain that number if it is comfortable with some lower number. It is simply the permissible limit. The scale below identifies these "permissible" numbers. This scale is applied equally for all core pieces of equipment.

<b><u>Number of Units</u></b>	<b><u>Permissible Number of Operators Per Unit (OPU)</u></b>
1-2	6
3-4	4
>5	3

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS**

### **T.E.O. Level vs. Driver's License Class**

It is important to understand that regardless of our Department's operator level criteria our drivers must hold the class of Pennsylvania Drivers License consistent with the type and size of vehicle they are driving.

### **Assistance for Lowboy Operations**

The loading and unloading of equipment onto or from a lowboy is a potentially dangerous operation. The utmost care must always be exercised during this operation. Frequently, the lowboy operator may need some assistance during this procedure.

When transferring equipment assigned to specialized crews such as paving, chipping and shoulder operations during normal working hours other employees are always available to assist the lowboy operator when necessary.

Frequently, equipment transfers are conducted after normal work hours. When this occurs, the Foreman or Assistant in charge is responsible to find a location where the transfer can occur safely. Another employee may need to be assigned to assist the lowboy operator if there is no such area available. Each specific situation must be evaluated in order to determine if assistance is required. Consideration of overtime restrictions should not override safety concerns. As always, common sense and safe operational procedures should be the guide.

## **MECHANICS**

### **NEW MECHANIC TRAINING**

**Goal:** To identify the training needs of the mechanics in the Department and develop a comprehensive training program in order to rectify deficiencies and increase productivity.

**Objectives:** To identify the essential needs.  
To identify the training requirements to meet these needs.  
To develop a program to train mechanics.

At the end of this instruction, the trainees will be able to:

1. Select and use all forms, publications, guidelines, labeling, record keeping and Department policy relating to their duties as a Department mechanic within established standards of performance. Also, be able to demonstrate correct application of hourly standards, cost functions and method codes utilized in tracking costs of fleet maintenance.
2. Demonstrate a knowledge of the chain-of-command within the Department as it relates to the County, District and Central Office Fleet Management Division levels.
3. Demonstrate a knowledge of the policy and standards in regards to shop safety by being able to understand the proper usage of garage and shop tools, their purpose and capabilities.
4. Demonstrate preventive maintenance, diagnostics, troubleshooting and repair techniques in the following areas:
  - Air Brakes
  - Diesel Engine
  - Preventive Maintenance
  - Computer Fundamentals
  - Electrical
  - Tire Maintenance
  - Cooling System
  - Hydraulic
  - Lube Systems
  - Spreader Control Systems
5. Safely operate all diagnostic test equipment utilized within County garages.
6. Demonstrate a favorable attitude toward productivity upon learning PennDOT's maintenance philosophy and repair techniques by participation and hands-on training.

Before the mechanic trainee becomes certified they must successfully complete the five (5) week Mechanic Training Program. The trainee must successfully complete each test to become certified.

**NOTE:** During week 1 all attendees will be given the opportunity to demonstrate their proficiency in hydraulic, electrical and diesel engine fundamentals. Successfully demonstrating proficiency in any area will relieve that student from attending the week during which that subject is taught.



## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS (Cont'd)**

### **NEW MECHANIC TRAINING (Cont'd)**

#### **MECHANIC CERTIFICATION REQUIREMENTS**

Newly appointed or promoted Diesel and Automotive Mechanics in the Department of Transportation will be required to be a certified inspection mechanic which includes the possession of a valid commercial driver's license for the class of vehicle inspected within their probationary period. At a minimum, this includes a class "B" commercial driver's license without the airbrakes restriction. In addition, a number of mechanics will be required to maintain or obtain a Haz Mat and Tanker endorsement.

The minimum number of mechanics possessing these endorsements for each garage installation will be two, or 50% of the number of mechanics, whichever is greater.

Newly hired mechanics (does not include promotions) are required to successfully complete the "New Mechanic Training Program" within their probationary period and acquire the appropriate class of CDL license.

#### **MECHANIC INSTRUCTOR PROGRAM**

The intent of this program is to select mechanics from each District willing to serve as part-time mechanic instructors within their District.

The objective is to develop expertise within the Department and disseminate this knowledge to the mechanics through training sessions established by the Districts using the mechanic instructors. An integral requirement to the success of this program is the support and commitment by District and county management.

The District Equipment Manager shall be responsible for the Mechanic Training Program within their District and, as such, they shall coordinate the development and implementation of the training plans with the mechanic instructor(s).

The Fleet Management Division, Technical Training Unit will assist the District with course development and content so that the District courses will coordinate with the Training Unit's tiered training program. This will ensure mechanics do not receive redundant training.

The Counties are to be solicited for candidates; these candidates are to be interviewed and counseled concerning the objectives of the program. The following are to be reviewed with each candidate:

1. The candidate's background or knowledge on the particular subject.
2. To the best of your knowledge, is the employee going to be with the Department for another two (2) years or longer?
3. Has the candidate demonstrated the necessary qualities to instruct others or an ability to help people learn?
4. Is the mechanic willing to participate as a mechanic instructor?

#### **MECHANIC INSTRUCTOR CERTIFICATION**

Requirements:

1. A minimum of fifteen hours of subject training (per subject).
2. Completion of the Instructor Development Course.
3. At least three (3) courses taught (documented) by the instructor.
4. A minimum of three (3) observations by the District Equipment Manager (or their designee); or Central Office Equipment Manager. Their approval, to be documented on a training evaluation form, is required for documentation and issuance of certificate.

#### **MOBILE MECHANIC TRAINING**

**Goal:** To deliver quality training applicable to today's equipment and components to the Department's mechanics.



## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS**

### **& MECHANICS (Cont'd)**

#### **NEW MECHANIC TRAINING (Cont'd)**

**Objectives:** To identify training needs; to develop a program to address those needs; to deliver training that is department-specific, addresses basic skills as well as advanced systems and is well received by mechanics.

#### **TRAINING COURSES**

##### **Tier 1: Fundamental Classes -**

Consists of such courses as Electrical Fundamentals, Hydraulic Fundamentals, Diesel Fundamentals and other basic courses. These courses do not require any previous knowledge beyond a basic understanding of equipment repair.

##### **Tier 2: Advanced Classes -**

Consists of such courses as Spreader Control Systems, Advanced Electrical, Diesel Engine Electronic Controls, etc. These courses require that attendees have the depth and breadth of knowledge gained in the Tier 1 Courses.

Training is delivered at various sites in each District by full-time Mechanic Instructors from the Fleet Management Division's Technical Training Unit. Courses are selected by each District based on local needs and a review of past training delivered to the District's mechanics. Attendees are selected by the District.

Courses are typically held from March through October of each year.

#### **CLASSIFICATION & CERTIFICATION**

##### **TRANSPORTATION EQUIPMENT OPERATOR CERTIFICATION POLICY**

It is the policy of the Department that no one will be allowed to operate any piece of automotive/heavy equipment (other than sedans, pickups/vans, crew cabs, sign trucks and other trucks up to 20,000 GVW) unless they have been trained and certified as being competent.

All operators of automotive and maintenance equipment of any type must have in their possession a current, valid Pennsylvania driver's license of an appropriate class. In addition, a validated certificate is required for all types except those listed in the aforementioned paragraph.

If for any reason the privilege of operating a motor vehicle is suspended, the operator must report this fact to the Equipment Manager and surrender their equipment operator certification card.

Motor Vehicle Safety Act of 1986 requires that operators of commercial motor vehicles possess only a single driver's license; establishes disqualification requirements for driving under the influence of alcohol, leaving the scene of an accident, certain felonies, including controlled substance felonies, and serious traffic violations.

The Motor Vehicle Safety Act of 1986 further requires a driver to notify their home State and employer of driving violations and license suspensions; and prohibits employers from using a driver whose license has been suspended.

Equipment Managers should make periodic checks to ensure possession of a valid Pennsylvania driver's license.

Only the operators, who have passed the special physical examination and completed the necessary orientation program in accordance with the Federal Motor Carrier Safety Regulations, will be permitted to operate a vehicle transporting hazardous substances. Substantiated records of personnel qualified to transport hazardous materials must be maintained by each District.

The principal objective for standardization training is to ensure all transportation equipment operator trainees (both permanent and temporary) receive the uniform minimum requirements necessary to be competent and safe operators of department equipment. The training objectives, requirements, curriculum and evaluation forms, as listed in the Equipment Operators Instructor Manual, (Pub. 235) are designed to accomplish this objective.

**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS (Cont'd)**

**TRANSPORTATION EQUIPMENT OPERATOR CERTIFICATION POLICY (Cont'd)**

In order for an operator to be certified on a front-end loader (LD) and/or tandem axle truck (TA), the individual must have successfully passed the Truck/Loader course at a training center approved by the Department.

The aforementioned Equipment Operator Instructor's Manual was designed to assist the Trainee to acquire the dual-assignment flexibility required by the class. The manual involves extensive hands-on-training, and is combined with a minimum of formal classroom time. The manual contains the objectives, requirements, curriculum and lesson plans for all equipment requiring certification, as well as, the course requirements for the one-week temporary equipment operator program on heavy truck and loader.

This manual is to be used for all certification training for this type of equipment and may be updated to include other types of equipment as needed.

**Certification Test**

1. All newly hired or trained operators, after successfully completing the appropriate training will be examined by the District or County Equipment Manager or a qualified designee if authorized. The purpose is to evaluate the training and to ensure that the operator can maintain the equipment properly and operate it safely and proficiently.  
  
Only upon the recommendation of the Department Certifier and the concurrence of the District Engineer will certification be entered in the computerized certification records system and M-610 Form appropriately signed.
2. Where trainees or operators fail to pass this examination, they cannot be re-scheduled for another evaluation for 15 days. This 15 day period is considered to be the minimum time in which a trainee could acquire the additional knowledge and/or experience necessary to qualify.

Fleet Management Division administers the certification of operators of the types of equipment which are self-propelled and on which the operator rides. The correct certification is required to operate any equipment that requires certification even when only transporting a unit from one location to another.

In those cases where more than one operator is required, e.g., Chip Spreader, Motor Paver/Finisher, Paint Machine, etc., only the operator with overall responsibility and control need be certified for that specific type of equipment.

Assistant operators/trainees need not be certified provided they are under the direct supervision and control of the certified operator, but assistant operators who routinely steer such equipment should normally be certified on an appropriate (per GVW) truck.

INCIDENTAL USE, as a "blanket" authorization allowing only basic operation, is limited generally to Tractor Trailer (TT) operators, Tag Trailer (TR) operators, Equipment Maintenance Personnel and New Equipment Division employees. Equipment Maintenance Personnel with Incidental use may road test any equipment and move it to or from repair sites. Tractor Trailer(TT) and Tag Trailer (TR) operators with Incidental use may move any equipment on or off their trailers.

Employees given this certification must use it SOLELY to perform required activities essential to carrying out their duties i.e., New Equipment Section at the Fleet Management Division. This certification does not authorize any other type of operation. Under no circumstances may an employee with only incidental use operate any equipment in a production capacity.

**TRANSPORTATION EQUIPMENT OPERATOR CLASSIFICATION REQUIREMENTS**

Transportation Equipment Operators are subject to the Minimum Experience and Training Requirements as stated in the Transportation Equipment Operator Classification Specifications (91360 to 91400).

**Commercial Driver's License Requirements**

At a minimum Transportation Equipment Operators must have a Class "B" Commercial Driver's License with Tanker Endorsement (N) and WITHOUT the Air Brake restrictions (L) or (Z). The Class "B" CDL represents any single vehicle with a GVWR of 26,001 or more pounds, or any such vehicle towing another vehicle not in excess of 10,000 pounds

The Class "A" CDL represents any fifth wheel piece or, with an "O" restriction, combination of vehicles with a gross combination weight rating of 26,001 or more pounds provided the GVWR of the vehicle(s) being towed is in excess of 10,000 pounds. In addition to appropriate class of CDL, endorsements will be required on some pieces of equipment or under certain conditions.

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS (Cont'd)**

### **TRANSPORTATION EQUIPMENT OPERATOR CERTIFICATION POLICY (Cont'd)**

In General, a vehicle regardless of size, that is transporting or towing hazardous materials in an amount that requires placarding under the Hazardous Materials Transportation Act, requires at a minimum, the Class "B" CDL with the Hazardous Materials (H) endorsement.

A tank vehicle is any commercial motor vehicle that is designed to transport liquids or gases within a tank that is either permanently or temporarily attached to the vehicle or vehicle chassis. If the tank is portable (i.e., water tank in bed of dump truck) and has a rated capacity of 1,000 gallons or more the unit is considered a tank vehicle.

Any requests for exception to Department policy must be reviewed and approved by the Bureau of Maintenance and Operations and the Bureau of Personnel.

Equipment certifications must be maintained at each level, as indicated below, in order for a Transportation Equipment Operator to retain their job classification.

**Transportation Equipment Operator Trainee** - must have a valid Pennsylvania drivers license and possess at a minimum a Commercial Drivers License learners permit at the start of employment.

**Transportation Equipment Operator A** - Certification on truck (TA) and loader (LD) is mandatory for all TEO employees. Operators must be certified on two pieces of equipment at this level in addition to (TA) truck and (LD) loader. Current TEO employees can maintain existing certifications providing they meet CDL requirements.

**Transportation Equipment Operator** - Certification on truck (TA) and loader (LD) is mandatory for all TEO employees. Operators must be certified on four pieces of equipment at this level in addition to (TA) truck and (LD) loader. Current TEO employees can maintain existing certifications providing they meet CDL requirements.

Based on the above, the number of employees required to obtain a HazMat endorsement shall be established as follows:

Minimum - A minimum of one operator plus one backup per each piece of equipment that requires the HazMat endorsement.

Maximum - To be negotiated locally by the County Manager and Local Union.

If a local agreement cannot be reached, the maximum reverts to the number of employees in the county certified to operate that piece of equipment as of 05/30/90.

If local negotiations result in a number which exceeds the 05/30/90 number certified on a particular piece of equipment, the additional positions will be posted for a period of five days. At the conclusion of the posting period, the opportunity to be trained, certified and to obtain the HazMat endorsement will be awarded to the most senior employee from the appropriate class.

If there are insufficient interested employees, the maximum will revert back to the 05/30/90 maximum. For example, the 05/30/90 number of employees certified on a particular piece of equipment is three; however local negotiations have increased this number to four. As a result, a posting for one position is made. If, however, no one expresses an interest in the position, the maximum would then revert to three (the current number certified).

If the Number Falls Below the Maximum - If the number of employees with HazMat endorsements for a particular piece of equipment falls below the maximum, the position will be posted and filled as indicated above. If there are no interested volunteers from the appropriate class, the least senior employee in the appropriate class will be expected to become certified and obtain the endorsement.

**NOTE:** In determining the appropriate number of operators keep in mind that an individual employee can be designated as the primary or backup operator on more than one piece of equipment. For example, the primary operator of the fuel truck could be counted as the backup operator, if properly certified, on the oil distributor, Lowboy, pony express truck, etc.

A local agreement acceptable to both parties may be negotiated as an alternative.

Appointments above the entry level - (Only to be used when the seniority provisions of Article 29 does not produce an internal candidate for a posted vacancy.)

Candidates who are hired directly into levels above the Transportation Equipment Operator Trainee Class must meet the appropriate CDL requirements upon entry and must meet the appropriate equipment certification requirements within the probationary period for the class entered.

**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS (Cont'd)****COMMERCIAL DRIVER'S LICENSE REQUIREMENTS (Cont'd)****CDL REQUIREMENTS**

Candidates, who meet the minimum experience and training for the higher level class with the exception of possessing the required CDL, will be appointed to the Transportation Equipment Operator Trainee Class and will be promoted to the appropriate higher level class when the necessary CDL Licensure is gained. If the employee does not gain the necessary CDL Licensure within their initial hire probation period, they will be dismissed from the position.

**Certification Requirements:**

Candidates, who meet the minimum experience and training for the higher level class, including possession of the required CDL, will be appointed to the higher level class. If the employee does not meet the certification requirements within their probation period, they will be dismissed from the position.

It will be the responsibility of the work organization to ensure the employee was given the opportunity to gain the necessary CDL licensure and become certified on the appropriate equipment within their probationary period.

There are several circumstances where the employee is certified on a higher-level piece and there are related type pieces which the higher-class certification will cover with no additional certification required.

Only the following Certifications allow for operation of a related piece:

**WHEN CERIFIED ON**

Flatbed Tractor Trailer (TT)  
Grader (GD)  
Tandem Axle Truck (TA)  
Trac-Hoe (TH) over 25,501 GVWR  
Track Backhoe (TB) 12,501 lbs. to 25,000 lbs.

**ABLE TO OPERATE RELATED PIECE**

Tag Trailer (TR) 20,000 lbs. GVWR or Greater  
Tractor Maintainer (MT) Side Dozer  
Heavy Truck (HT) or Tri-Axle with Refresher  
Track-Backhoe (TB) & Mini Ex (ME) less than 25,501 GVWR  
Mini Excavator (ME) less than 12,501 lbs. GVWR

If necessary, familiarization training will be provided for the related pieces. Each certification listed on an Operators M610 certification card and in LSO will only be considered as one piece of equipment for promotional purposes.

All Certifications issued must have the following documentation kept in the operators training records.

1. One completed and signed M373 Operators Training report or the operators completed challenge exam test.
2. One completed and signed M-691 Certification test.

This is required for each certification issued following guidelines listed in Pub 235 and in this publication.

Heavy Truck (HT) training performed for all permanent employees at the training sites have been done with Tandem Axle trucks since 1998. All (HT) certifications completed before May 1st 2020 are certified on tandem axle trucks. Starting May 1st 2020 all operators certified on Tandem Axle trucks must have the certification code (TA) listed on their M610 operator certification card.

Training - As a matter of policy equipment certification training will be conducted as outlined in Appendix H of the Master Agreement.

The County Manager shall provide a listing of anticipated certification needs to the local union prior to the annual posting.

All Equipment Training opportunities are to be posted in the Seniority Unit each October based on equipment needs.

The employee will indicate interest in certification at this time by signing "yes" or "no". If they indicate no, it will remain in effect until the next posting. Class schedules for the two training sites will be posted by January 31 of each year.

Supplemental bidding will be accepted if there is an unanticipated need between postings. We will train the most senior bidder, (Master Agreement Seniority). However, it is understood that if training slots are limited, the most senior (Master Agreement) employee will be given a choice. Local agreements will be accepted on this issue.

Should a situation arise where several employees are scheduled for the same training at different locations and one location is canceled, the most senior (Master Agreement Seniority) employees will be provided the training.

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS (Cont'd)**

### **CERTIFICATION REQUIREMENTS (Cont'd)**

In the event candidates from several Counties in an Engineering District are scheduled and the Training Site can't accommodate all, the District will designate the county (ies) with the greatest need and employees with the most master agreement seniority from the designated Counties will be trained. In all cases, the local union will be notified of who is selected.

Employees will be required to have the proper certifications for promotion. The most senior bidder possessing the proper certifications will be promoted to the higher level. However, where the employee requested and did not receive the opportunity for training they will be promoted and will be given the necessary certification training to qualify. When the employee becomes certified, the six month probationary period will commence on that date. If the employee fails certification testing, they will be demoted.

In order for training to be most effective, unnecessary breaks or delays in the continuity of training should be avoided. Therefore, at such time as an employee begins training on a specific piece of equipment, it is expected that the training shall be completed within a 60 calendar day period from the first day of training. If unanticipated reasons prevent this from occurring, it is required that the Local Union President be notified of the reasons and the anticipated completion date of training.

### **SEASONAL OPERATORS**

Seasonal Operators hired for a period of up to six months may operate Department equipment if; (1) They meet the minimum experience and training requirements for the class they are hired into (2) Successfully complete the instructor led Safe Driver Course before operating any state owned vehicles or equipment (3) Successfully complete the Seasonal Operators Orientation (4) If applicable, successfully complete the Winter Maintenance Program Courses as outlined in Section 3 of Pub 235.

Seasonal Operators that become permanent employee's must complete established training requirements for certifications on truck and loader during normal probation periods. Completion of training for each certification is outlined in Pub 177 and Pub 235.

Seasonal Operators who are rehired as Seasonal Operators for two or more consecutive years may not need to repeat the Seasonal Operators Orientation Training requirement or be recertified at the discretion of the District Equipment Manager.

Seasonal Operators who are hired after a break in service of one season or more must retake the instructor led Safe Driver Course along with the Seasonal Operators Orientation and Winter Maintenance Program Courses as outlined in Section 3 of Pub 235.

### **TEMPORARY TUNNEL MAINTAINER**

The Temporary Tunnel Maintainer Position is specific to PennDOT's Tunnel Maintenance Operations. Individuals hired into this position for a period of up to six months may operate Department equipment if they meet the following; (1) Has completed the Departments instructor led Safe Driver Course (2) Maintains a valid Class A CDL Driver's License with Air Brake Restriction removed (3) Has successfully completed applicable portions of the Seasonal Operator Orientation Course in Section 3 of Pub 235 (4) Successfully completed the Tunnel Wrecker and Tunnel Platform Truck Courses in Section 2 of Pub 235 as required for the position. This position is not involved in any type of winter maintenance work performed by PennDOT Winter Temporary Equipment Operators.

Temporary Tunnel Maintainers that become permanent employees must complete training requirements for applicable "core" equipment and issued permanent certifications during normal probation periods. Completion of training for each certification is outlined in Pub 177 and Pub 235.

Temporary Tunnel Maintainers who are rehired as Temporary Tunnel Maintainers two or more consecutive years, may not need to repeat the training requirement(s) or be recertified at the discretion of the District Equipment Manager.



**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS (Cont'd)**

**TEMPORARY TUNNEL MAINTAINER (Cont'd)**

Temporary Tunnel Maintainers with a break in service of more than one season must retake the instructor led Safe Driver course, Orientation, Tunnel Wrecker, and Tunnel Platform Truck Courses as outlined in Pub 235.

**TEOT DUMP TRUCK CERTIFICATION**

The Bureau of Driver Licensing (BDL) simplified the Pre-trip Inspection section of the Commercial Drivers' License (CDL) truck skills test. This is the same test the Department uses to certify all Transportation Equipment Operator Trainees (TEOT's) for dump truck operation, in accordance with policies established when the CDL program began.

The District Equipment Managers, after reviewing the simplified CDL skills test, felt it no longer satisfied all the Department's certification needs and they requested a Department Pre-trip Inspection section be added to the CDL Skills Test for certification of Department operators. The District Equipment Managers based their request on their belief that a Pre-trip Certification ensures the student can correctly and completely perform the Department's Pre-trip Inspection and M-614 Form completion as required daily by both Department policy and Intrastate Safety Regulations. These policies and regulations are independent of the CDL Regulations established by the Bureau of Driver Licensing. Additionally, Department policy requires the operator to inspect all systems on the vehicle, not just those involving vehicle safety, such as, brakes and lights.

Because the Department relies on the equipment operator to be the eyes and ears of the garage in daily determining the condition of equipment prior to operation, every operator must be capable of performing a quality Pre-trip Inspection.

Use of this Pre-trip Certification Test in conjunction with the simplified CDL test should not require any additional time to perform compared to the prior CDL test. It will, however, negate the 15-20 minutes savings gained by using the new CDL test alone for certification. Discussions with the Bureau of Driver Licensing indicated that many other Third Party Examiners, such as, trucking companies and truck driving schools are also requiring students to complete additional testing requirements in addition to the new CDL test in order to successfully complete their training and employment programs. These additional testing requirements were established to address specific company needs, that were left unaddressed by the new CDL test, as the Pre-trip Certification is intended to do. A Department Pre-trip Certification Test will be given to each TEOT by a Department Certifier prior to performing the CDL Skills Test. If the student passes the Pre-trip Certification, they will then be given the CDL Skills test. If the student fails the Pre-trip, the CDL test will not be given. The student must pass both the Pre-trip and CDL tests to become certified to operate a Department dump truck. As previously established in policy, a student will have three opportunities to pass all sections of the certification test. In the event of a failure, additional training focused on developing the student's weak areas must be completed before the student is tested again. When a failure occurs on the third attempt, the employee will be terminated for unsatisfactory completion of probation. Copies of the Department Certification form is available in Pub 235.

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS (Cont'd)**

### **TRANSPORTATION EQUIPMENT OPERATOR ALLOCATION GUIDE**

<b><u>Cert Code</u></b>	<b><u>Equipment</u></b>	<b><u>Operator Level &amp; PA Driver License</u></b>
AL	Aerial Lift Machine . . . . . Vehicle mounted lifts also require proper driver's licensing and applicable department certification	Trans Equip Operator - 17,000 GVWR and above Other positions may get certified and operate as following master agreement guidelines
BR	Spider Broom (small self-propelled single drum) . . . . .	Trans Equip Operator
LD	Loader/Hi-Lift . . . . . (bucket capacity of 4 .5 cubic yards or less)	Trans Equip Operator
MT	Tractor-Maintainer (side dozer) . . . . .	Trans Equip Operator
*PR	Roller . . . . . (steel wheel less than 13,001 lbs GVWR)	Trans Equip Operator
TM	Tractor Mower . . . . . (excludes riding lawn mower)	Trans Equip Operator
TT	Flatbed Tractor Trailer Truck . . . . . (may require HazMat Certification)	Trans Equip Operator (CDL Class A/Airbrakes/Tank**)
BB	Bridge Inspection Equipment - Crane Bucket Operator . . (Secondary operator - truck mounted)	Any Employee with Bucket Operator Certification (BB)
BI	Bridge Inspection Equipment - Crane Operator . . . . . (Primary operator - truck mounted)	Trans Equip Operator (CDL Class B/Airbrakes/Tank**)
BM	Boom Mower (with extendable hydraulic mower or ditcher attachment)	Trans Equip Operator
CL	Conveyor Loader . . . . .	Trans Equip Operator
CM	Truck-Mounted Concrete Mixer . . . . .	Trans Equip Operator (CDL Class B/Airbrakes/Tank**)
DZ	Bulldozer/Track Crawler . . . . .	Trans Equip Operator
GD	Grader . . . . .	Trans Equip Operator
GT	Fuel Truck . . . . . (32,001 lbs GVWR or more)	Trans Equip Operator (CDL Class B/Airbrakes/ **Tank/***/HAZMAT)
HT	Conventional and 4-Wheel Drive Truck . . . . . (single axle under 41,001 lbs GVWR)	Trans Equip Operator Operator can be a mechanic if they performs field repairs on diesel equipment (CDL Class B/Airbrakes/Tank**)
TA	Tandem Axle Truck. . . . .	Trans Equip Operator (CDL Class B/Airbrakes/Tank**)
LB	LeeBoy (Paver Maintainer) . . . . .	Trans Equip Operator



**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS (Cont'd)****TRANSPORTATION EQUIPMENT OPERATOR ALLOCATION GUIDE (Cont'd)**

<b><u>Cert</u></b> <b><u>Code</u></b>	<b><u>Equipment</u></b>	<b><u>Operator Level &amp; PA Driver License</u></b>
LL	Loader/Hi-Lift (bucket capacity of greater than 4.5 cubic yards) . . . . .	Trans Equip Operator
ME	Mini Excavator (12,500 lb or LESS) . . . . .	Trans Equip Operator
MH	Backhoe (Operators with LL or LD . . . . . Certifications may use Backhoe for loading trucks at a stockpile. <u>This does not allow Operators</u> <u>without the MH certification to perform work with</u> <u>rear attachment</u> )	Trans Equip Operator
PB	Pavement Breaking Machine (self-propelled) . . . . .	Trans Equip Operator
PD	Guide Rail Post Driver (truck mounted) . . . . . (CDL Class B/Airbrakes)	Trans Equip Operator
PM	Paint Machine (does not include walk-behind and . . . . . pickup truck mounted units)	Trans Equip Operator (CDL Class B/Airbrakes/Tank**)
RP	Pothole Patching Machine (truck mounted) . . . . .	Trans Equip Operator (CDL Class B/Airbrakes/Tank**)
*RS	3 Wheel and Tandem Roller . . . . . (13,000 lbs or more)	Trans Equip Operator
*RT	Rubber Tire Roller . . . . . (13,000 lbs or more)	Trans Equip Operator
SB	Snow Blower (4-wheel drive truck 32,001 lbs. . . . . GVWR with snow blower attachment)	Trans Equip Operator (CDL Class B/Airbrakes/Tank**)
SL	Sloper . . . . .	Trans Equip Operator
SP	Sweeper (large multiple broom self-propelled) . . . . .	Trans Equip Operator (CDL Class B/Airbrakes/Tank**)
SS	Skid Steer Loader . . . . .	Trans Equip Operator
TB	Track Mounted Backhoe (12,501 lb - 25,500 lb....	Trans Equip Operator
TR	Tag Trailer . . . . .	Trans Equip Operator (CDL Class A/Airbrakes/Tank**)
WD	Road Widener (self-propelled) . . . . .	Trans Equip Operator
CS (SE)	Stone or Chip Spreader (self-propelled) . . . . .	Trans Equip Operator Specialist
FI (SE)	Paver Finisher . . . . .	Trans Equip Operator Specialist

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS (Cont'd)**

### **TRANSPORTATION EQUIPMENT OPERATOR ALLOCATION GUIDE (Cont'd)**

<b><u>Cert</u></b>	<b><u>Equipment</u></b>	<b><u>Operator Level &amp; PA Driver License</u></b>
GA (SE)	Excavator (Gradall - includes other manufacturers . . . . . of telescoping boom type equipment)	Trans Equip Operator Specialist
GT (SE)	Fuel Truck . . . . .	Trans Equip Operator Specialist (CDL Class B/Airbrakes/Tank**/HazMat***)
MM (SE)	Milling Machine (planer type) . . . . .	Trans Equip Operator Specialist
MP (SE)	Motor Paver - Large . . . . . (SAP Class Codes CPL* and C34AS*)	Trans Equip Operator Specialist
OD (SE)	Oil Distributor . . . . .	Trans Equip Operator Specialist (CDL Class B/Airbrakes/ Tank**)
TH (SE)	Track Hoe (greater than 25,501 GVWR) . . . . . (Track Excavator - SAP Class Code of EETCHHBD)	Trans Equip Operator Specialist
(SE)	Pugmill (no code - familiarization training only) . . . . .	Trans Equip Operator Specialist
****BT	Tunnel Brush (Scrubbing) Truck. . . . .	Tunnel Maintainer
****TP	Tunnel Platform Truck . . . . .	Tunnel Maintainer
****WR	Tunnel Wrecker . . . . .	Tunnel Maintainer

\* Operators holding the old "RL" certification will be considered certified on "PR", "RS", and "RT" equipment

\*\* If a vehicle is equipped or used in conjunction with a permanently mounted liquid carrying tank, a CDL Tank endorsement is required. Portable tanks (i.e., water tank in a dump bed) that have a rated capacity of 1,000 gallons or more also require a CDL Tank endorsement.

\*\*\* If a vehicle requires a HazMat placard, a CDL HazMat endorsement, valid ICC physical and Department HazMat training are required.

\*\*\*\* These certifications apply only to the specialized tunnel maintenance equipment and safety equipment used in the Department's Pittsburgh area tunnels. No other equipment is covered by these certifications. A (HT) certification may be required in addition to the appropriate tunnel equipment certification, depending on the GVWR of the unit. CDL License requirements may also apply. See Notes (\*\*) and (\*\*\*).

### **Pay Incentive for Equipment Operation - noted above with (SE) for Specialized Equipment**

An additional \$1.00 per hour or TWOC will be paid to TEO's for each hour of actual operation of the following specialized equipment:

**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS (Cont'd)****PAY INCENTIVE (Cont'd)**

GT	Fuel Truck
GA	Rubber Tire Excavator (Gradall)
MM	Milling Machine
OD	Oil Distributor
MP	Large Paver {Equipment with SAP Class Codes CPL* and C34AS* (updated in the 9/12/08 letter)}
TH	Track Excavator (GVWR of 25,500 lbs. or greater) (Equipment with SAP Class Code of EETCHH BC OR BD)
CS	Stone or Chip Spreader (used for surface treatment operations) Pugmill (no certification code - training administered locally)

The incentive will only be paid to the operator of the piece of equipment and not to any support employees. The incentive will not be paid to Diesel Mechanics who operate the pieces of equipment during inspection, preventative maintenance, or repair duties, or to employees who operate the pieces of equipment for the loading/unloading and transport of equipment. Transportation Equipment Operator Specialists are not eligible for the \$1 per hour or TWOC for operating specialized equipment as that should be their normal assignment. The \$1 per hour pay incentive will only be paid when an employee is not eligible for TWOC for hours worked operating specialized equipment. The \$1 incentive will be held until the end of that quarter to make sure no duplication in pay occurs by the employee receiving the \$1 per hour and TWOC for the same hours.

**TRAINING POLICIES****Backhoe Certification Challenge Exam**

In January 1999 a program was initiated to offer certain newly hired Transportation Equipment Operators the opportunity to take a challenge exam for certification on truck and loader. The program has proven so successful that the MECHTECH Committee has developed a similar program for backhoe certification.

The benefit to the Department and the student is that when the challenge exam is passed the student does not have to attend the two-week training program, away from home, at the training site. If they fail there is no harm to them, all they must do is attend the two-week backhoe program at a training site.

**Grader and Excavator Certification Challenge Exams**

Programs to offer both Grader and Excavator Challenge Exams to Department operators have been developed by the MECHTECH Committee. Any operator who meets the requirements listed in the Master Agreement as well as any applicable local agreements regarding selection of employees for training will be eligible for these challenges. These operators should be offered the opportunity to apply to take them in lieu of attending the 2-week training classes held at the regional training sites.

The addition of these two Challenge Exams to the previously completed Truck & Loader and Backhoe Challenge Exams, establishes Challenge Exams for all core equipment training offered at the regional training sites.

The challenge exam needs to be scheduled and completed at least 30 days prior to the operator's scheduled attendance at a training facility. This policy is to keep classes at full capacity to minimize training costs.

Challenge Exams are voluntary and operators should not be forced to take them.

The criteria for the exams are:

**Grader Challenge**

- Must agree to take the Challenge Exam by initialing and signing a Challenge Exam Application, including the prior

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS (Cont'd)**

### **GRADER CHALLENGE (Cont'd)**

experience statement. Those operators who do not agree to take the Challenge Exam should not be forced to do so.

- Using a Department grader and under the direct observation of the County Equipment Manager, the Operator must perform the following tasks to verify familiarization with grader operation:
  - Know and perform a complete pre-trip of the machine.
  - Enter and start grader.
  - Demonstrate command of controls (wheel lean, blade rotation, blade lift, scarifier control, blade pitch, blade slide, grader articulation and return to straight frame position).
  - Demonstrate proper machine setup for travel and move unit 50 feet forward and backward.
  - Park and secure grader.

### **Excavator Challenge**

- Must agree to take the Challenge Exam by initialing and signing a Challenge Exam Application, including the prior experience statement. Those operators who do not agree to take the Challenge Exam should not be forced to do so.
- Using a Department excavator and under the direct observation of the County Equipment Manager, the Operator must perform the following tasks to verify familiarization with excavator operation:
  - Know and perform a complete pre-trip of the machine.
  - Enter and start the excavator
  - Engage the remote setup
  - Remove the boom from the cradle
  - Rotate the digging unit
  - Remote the excavator 50 feet forward and backward
  - Re-cradle the boom
  - Return to travel mode

As part of the development of the Grader and Excavator Challenge Exams the MECHTECH Committee also reviewed both the written and the skills tests used for certification at the sites. The revisions made to some of the certification requirements will be used for all certifications and challenge exams effective immediately. Each student or challenger must complete the written test, perform a pre-trip inspection on the equipment and complete a yard skills operating certification which includes a digging or grading exercise.

All Grader Challenge Exams must be conducted at one of the two regional training sites. Testing in the Districts is not authorized. All Challenge Exam certifiers must have attended the Departments' Certifier training.

### **New Hire TEO Certification**

This is to provide guidance on the process of certifying newly hired Transportation Equipment Operator - (TEO) at the county level prior to full certification at one of the training sites.

Due to the high influx of newly hired TEO's we are experiencing a large backlog of students at the training sites for Truck and Loader classes. In order to alleviate any potential staffing problems, Districts are allowed to certify new hires as a seasonal operator prior to them attending one of the training sites.

The district must use the current winter seasonal operator training and certification criteria to train and certify the employee. This policy does not excuse the employee from the requirement for Truck and Loader training and certification in their six month probationary period.

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS (Cont'd)**

### **New Hire Certifications - TEO Truck/Loader Certification Failures**

A newly hired permanent TEO who **WAS** hired as a Winter Seasonal Operator for the current or previous winter season and has previously completed the Winter Seasonal Operator Training and received their Certification as a seasonal operator is permitted to continue to operate equipment they hold certifications on during their probation period. This does not excuse the employee from Truck and Loader training and certification required during the 6 month probation period.

When a permanent TEO previously certified as a Seasonal Operator fails to pass a Certification Test required for permanent employee status at the end of required training, the MechTech Committee recommends the following:

**Prohibit the employee from independently operating the equipment at any time, until the required certification tests are successfully passed. For truck and loader, this prohibition would only apply to the equipment type for which the required certification tests were not successfully completed, Truck or Loader or both Truck and Loader if both certification tests scored un-satisfactory.**

This recommendation is based on the following information:

- Classification requirements for TEO include: possession of a valid PA Commercial Driver License Class B (minimum), air brake restriction removed, tank endorsement, and be Department certified on TA (Tandem) and LD (Loader). PennDOT utilizes the certification process to ensure all operators, temporary and permanent, are able to properly maintain the equipment and operate it safely and proficiently.
- Although a newly hired TEO may have been previously certified through the winter temporary training process, any individual failing the required certification tests has not demonstrated the knowledge, skills and abilities required by the classification specifications for permanent TEO status. PennDOT cannot accept the liability of allowing an individual to independently operate Department equipment until required certification exams are passed while having the knowledge that the operator does not meet PennDot internal requirements.
- When a newly hired TEO fails a required certification test(s) at a training site, the individual returns to the home County and is provided additional training by a local Operator Instructor. After 15 days, a re-test is conducted at the training site. A total of three (3) attempts to pass the required certification exams are permitted.
- During the process of re-testing due to a failure, if the individual exceeds their (6) month probationary period, the probation period must be extended as necessary to provide adequate time for additional training and re-testing.
- During the period starting from the time of the initial certification test failure through the successful completion of certification tests, the TEO is not permitted to operate the Department equipment for which the required certification test was failed unless accompanied by an Operator Instructor. IE: If the TEO passed the loader certification tests but failed a truck certification exam, the TEO would be able to independently operate the loader, but would only be able to operate TA trucks when accompanied by an Operator Instructor.

### **Certifications on 2 – 6 Ton Patch Roller**

The Department has begun purchasing smaller Trenching Rollers which range from 3,800 lbs to 4,200 lbs. There are two (2) models currently being purchased by the Commonwealth, Caterpillar CB-14, and Bomag BW900-50. These units are smaller versions of the 5 Ton Articulating Vibratory Patch Rollers most Counties have. The smaller units require the operator to sit and drive the unit just as they would on the larger 5 Ton Articulating/Vibratory Patch machine.

Because the controls and operating characteristics of these smaller rollers are identical to the larger Patch Rollers and require an operator to actually sit and drive the unit, a certification will be required to operate one. The current Certification used for the 5 Ton unit will be used to certify an operator on the smaller Trench Roller.

Any operator certified on either the 5 Ton Articulating Vibratory Patch Roller or the smaller 2 Ton Trenching Roller will have met the requirement for the PR-Patch Roller certification.

## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS & MECHANICS (Cont'd)**

### **CERTIFICATIONS ON 2 - 6 TON PATCH ROLLER (Cont'd)**

The Patch Roller(PR) is still a prerequisite for the larger 3 wheel 10 ton (or), 10 ton Vibratory (RS) and the Rubber Tire Roller (RT).

#### **Small-Large Loader Reclassification Agreement dated March 25, 2014**

The following represents discussions between AFSCME and PENNDOT concerning the Loader certification. In addition the agreement released on 10/15/2019 concerning a side letter from 5/20/2019 has changed the TEOA and TEOB classifications within this Loader classification agreement.

- 1) All loaders with a bucket capacity of 4.5 cubic yards, or less will be classified as an "A" piece of equipment. All loaders with a bucket capacity of greater than 4.5 cubic yards will be classified as a "B" piece of equipment.
- 2) Any loader with an attached snow blower is classified as a "B" piece of equipment.
- 3) All operators hired after the signing of this agreement will be certified on a loader with a bucket capacity of 4.5 cubic yards or less.
- 4) Current permanent TEOA and TEOB operators, for six months following the signing of this agreement, may request the option of being certified on a loader with a bucket capacity of between 3 cubic yards and 4.5 cubic yards. This certification shall be regarded as a "B" certification.
- 5) Current TEOA operators, as of the date of this agreement, that have previously been certified on a loader with a bucket capacity of between 3 cubic yards and 4.5 cubic yards as a "B" piece of equipment will retain this certification as one of their two required "B" equipment certifications if they are appointed to a TEOB position.
- 6) Current TEOB operators, as of the date of this agreement, that are certified on a loader with a bucket capacity of between 3 cubic yards and 4.5 cubic yards as a "B" piece of equipment, will retain this certification as one of their two required "B" equipment certifications.
- 7) It is understood that nothing in this agreement will establish a precedent or prejudice the contractual rights of either the Commonwealth or the Union.

### **DEPARTMENT CERTIFIER**

#### **Transportation Equipment Operator Certifiers**

Beginning January 01, 1995 any person conducting equipment operator certification testing must have attended the "Certifier Training Course" (code CERTIFIER).

All Certifications must be conducted using the most current approved evaluation form.

Certifiers must conduct consistent tests including and not exceeding all items on the examination form.

In addition, in order to certify an operator for a Commercial Drivers License required to operate a Class A or Class B vehicle, the certifier must have been approved as a CDL 3rd party examiner. This process is done through Fleet Management Division and the Bureau of Drivers Licensing.

Questions can be referred to the Technical Training Manager of the Fleet Management Division at phone number (717) 787-4836.

### **TRAINING POLICY**

#### **RIDING ON EQUIPMENT POLICY**

PennDOT has highway construction equipment that appears to have ample space to accommodate passengers, but it is not designed for that purpose. Examples include the self-propelled widener, paver, and stone chip spreader.

Staff from the Fleet Management, Maintenance Performance, and the Employee Safety Divisions came together to address this issue. PennDOT policy can be referenced in PUB 445, Under Section "Rules and Enforcement".



**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS  
& MECHANICS (Cont'd)**

**RIDING ON EQUIPMENT POLICY (Cont'd)**

Operator/Mechanic Student Absence During a Weather Event

Department Policy regarding students called back to the county for weather events while attending training at a Regional Training Site states "A liberal training absence policy will be in effect during the winter months (December, January and February) which will allow a county to utilize a student during a winter event. The Training Sites will use the 4 day holiday weeks during this period to conduct any make up days for the trainees who were recalled for Winter Services."

Make up days at the sites must be arranged by the county with the Training Site Administrator who in turn will schedule make up training based on availability. The county is also responsible to contact the Training Site Administrator to request the return of the student. The county is responsible to ensure training is completed within the student's probationary period. Winter Service is the only reason for absence and the full training must be fulfilled for certification to be completed.

Students scheduled for training must have every opportunity to complete the training without interruption. This process also applies to both Mobile Mechanic and New Mechanic Training programs, in which case, the county is responsible to contact the Mechanic Training Department.

**Use of a Backhoe with a Loader Certification**

The backhoe can be operated as a front end loader by an operator who has a loader certification. This has been the practice in the past for the Department and this practice has not created problems.

**Backhoe Challenge Exam**

Beginning July 1, 2005, any operator scheduled to attend backhoe certification training at one of the two regional training sites and who meets the requirements listed below will be eligible for the challenge and should be offered the opportunity to apply for and to take the exam. The criteria for the exam are:

- Must agree to take the challenge exam by initialing and signing a Challenge Exam application, including the prior experience statement. Those operators that do not agree to take the challenge exam should not be forced to do so. They should be scheduled for backhoe training at one of the regional training sites.
- Using a department backhoe in the county, and under the direct observation of the County Equipment Manager, must perform the following tasks to demonstrate familiarization with backhoe operation to the satisfaction of the County Equipment Manager in order to qualify to take the challenge exam.
  - Enter and start backhoe
  - Demonstrate command of controls (curl bucket, extend/retract boom, etc.)
  - Position backhoe for digging, including lowering and setting stabilizers
  - Position backhoe for transport

As a part of the development of the backhoe challenge exam, the MECHTECH Committee also updated both the written and the skills tests used for backhoe certification at the sites. These revised certification requirements will be used for all backhoe certifications and backhoe challenge exams effective July 1, 2005. Each student or challenger must complete the written test, perform a pre-trip inspection on the backhoe and complete a yard skills operating certification which includes a digging exercise.

All backhoe challenge exams must be conducted at one of the regional training sites. Testing in the Districts is not authorized. all backhoe challenge exam certifiers must have attended the Department's Certifier Training.

**Mandatory Mower Training**

A boom-arm mower incident investigation has produced evidence of potential unsafe operations. Specifically, the equipment was being improperly utilized, and the shadow vehicle was less than 300 feet from the operation.

In addition to viewing the DVD video of the Alamo Group Tiger Division AEM-Industrial and Agricultural Mower Safety practices, the following operational concerns identified must be emphasized.



## **CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS**

### **& MECHANICS (Cont'd)**

#### **Backhoe Challenge Exam (Cont'd)**

- Top-down mulching is strictly forbidden - pressure bends the blades
- Support vehicles must be 300 feet away from the operation
- Standardization of two-blade configuration Department-wide
- When operating in heavy brush, inspect blades every hour
- Bolt/blade/spacer matching is critical when replacing mower blades
- Do not use impact wrench to tighten bolts - only ratchet-type wrench
- Blade bolts must be lubricated and torqued following the equipment manufacturer's requirements.
- Re-torque after 8 hours of operation

#### **Operator Training Changes**

Beginning with the classes starting in the Summer of 2015, the class size will be increased at both sites. WPTA will increase the number of Truck and Loader students from the current class size of 6 to 10 students and EPTF will increase from 8 to 12 students. These increased class sizes will be in effect for the next 8 classes and will conclude on December 04, 2015. The instructor work force will be augmented through the use of Annuitant Instructors. All of the annuitants were previously Operator Instructors that worked at the sites. The use of Annuitant Instructors will minimize and in most cases eliminate the need to borrow Instructors from the Counties for the Truck and Loader Training. It may be necessary to request the assistance of County Operator Instructors (OIs) in support of off-road training. This plan will increase the number of trained and available certified operators at the County level before winter services begin.

The sites will also begin using the 4 work day holiday weeks to conduct training for Seasonal Operators brought on to a fulltime position that have successfully worked two winter seasons as a Plow Truck Operator without incident. At the District's request these individuals will be trained on Truck and Loader during the 4 day Holiday weeks. This will also serve to increase the number of Operators available for winter service.

Additionally a certification option for returning Seasonal Operators, who have less than 2 full years of service, who have been hired to full-time status would be to certify these individuals on Loader in County and provide 1 week of dedicated training on Truck (TA) at a training site. The certification for Truck (TA) would be done at the Training site after completing the one week of training.

The Challenge Exam for Truck (TA) and Loader (LD) is also an option for any new hire which includes a returning temporary operator or an individual hired as a trainee (TEOT). Changes to the Challenge Exam will be implemented with the other changes outlined in this letter. Unlike the present structure where the employee is not permitted to continue the Challenge exam if they fail a portion, the trainee may now pass one unit or the other as their skill dictates. Depending on the outcome of the Challenge Exam, the operator will only need to be trained on the portion of the test that was failed. For example, the Loader portion was passed but the Truck portion was failed. The operator would only require 1 week of Truck training to receive the required Operator Certification. The same process would be in effect if the operator failed the loader portion and passed the truck test.

Normal size classes will resume at the sites for the months of December, January and February. There will be no oversize classes conducted during the winter season. A liberal training absence policy will be in effect during the winter months which will allow a county to utilize a student during a weather event. The training sites will use the 4 day holiday weeks during this period to conduct any make-up days for trainees who were recalled for Winter Services. This will allow for more flexibility at the County level for winter services such as MET Team utilization and the ability to return an Operator to the county to perform winter services.

These changes are being implemented to improve our overall support of the County operations. These changes will eliminate many of the concerns of the field while providing greater flexibility for the County Management team during winter services and an increase in the number of certified operators at your disposal entering the winter season.

**CHAPTER 8: TRAINING AND CERTIFICATION OF TRANSPORTATION EQUIPMENT OPERATORS**  
**& MECHANICS (Cont'd)**

**Backhoe Challenge Exam (Cont'd)**

**Load Securement Operator Training**

PennDOT transports various types of equipment and materials on a daily basis. Every employee involved in these activities must be aware of both the danger of insufficient or improper load securement, as well as the proper securement methods as identified by FMCSA. You can reference the Load Securement Lesson Plan. This will provide the necessary information to properly train the Operators.

This training takes 4 hours and is mandatory for all operators who are certified on Tag, Flatbed and Lowboy Trailers. Anyone who has occasion to haul items that must be secured, should also receive this training. This training must be included as part of all future certifications on Tag, Flatbed and Lowboy Trailers. Supervisors should periodically verify their employees are properly securing items.

**Tar Kettles/Crack Sealing Equipment and Liquid Asphalt Safety Training**

The course for "Tar Kettle Operation" is designed to ensure safe and competent operation of various crack sealing machines. Course information can be found in Pub 235, Section 3, "Non-Certification Courses."

New tar kettle/crack sealing equipment training shall take place anytime a new piece of equipment is received by the county. As part of purchase price, the Fleet Management Division coordinates this vendor supplied training which is intended to serve as an introduction and demonstration of the new equipment. It is the responsibility of the County to request this training within three (3) months of receiving the new equipment and to coordinate with the District or County Training Coordinator to record attendance in LSO (LSO Code 78FM46000167).

The trainings should not be confused with the Mechanic Crafcro Training involving the vendor conducted by the Fleet Management Training Section. This particular training is geared towards the PennDOT mechanic and what that individual needs to know on how to properly repair and maintain these machines.

**ASSEMBLY DEFINITIONS****ALLOTMENTS 719, 813 AND 822****719 MAINTENANCE ADMINISTRATION**

This program provides for administrative costs which are related to highway maintenance assemblies but not identifiable with a specific highway maintenance or service function program.

**ASSEMBLY      METHOD**

9812    01      IN-SERVICE TRAINING - Include under this assembly is all costs relative to specialized training courses undertaken by the Department for those employees in the Maintenance Districts, who for payroll purposes are regularly assigned to Program 719, MAINTENANCE ADMINISTRATION. Specialized training courses may include, but not be limited to, defensive driver training, training employees to operate Department equipment, Management seminars, etc. The production unit is measured in PERSONNEL HOURS.

**ASSEMBLY      METHOD**

9816    01      MATERIAL TESTING AND FIELD TESTING - Various - Includes all actions related to the field testing and of all materials by field personnel. Personnel as signed to job sites for the purpose of receiving materials should charge their time to the Assembly/Method on which the material is to be used. If the Assembly/Method is not identifiable then this cost function method (719-9816-01 ) should be used. The production unit is measured in PERSONNEL HOURS.

**ASSEMBLY      METHOD**

9829    01      OTHER MAINTENANCE ADMINISTRATION ASSEMBLY - Include the salaries, wages, leave, time and other expenses of those employees in the Central Office and Maintenance Districts whose primary duties are related to maintenance assembly, and who for payroll purposes are regularly assigned to Program 719 through the medium of the employee's Form P-319, (REQUESTS FOR PAYROLL CHANGE). Does not include any costs for permit work. Permit work shall be charged to 719-9141, 9142, 9143, or 9149, whichever is applicable. The production unit is measured in PERSONNEL HOURS.

**ASSEMBLY      METHOD**

9851    01      HAZARDOUS WASTE INVENTORY REMOVAL - Includes all actions related to the removal of hazardous waste material generated by all assemblies EXCEPT 813 assemblies. The production unit is measured in PERSONNEL HOURS.

**813 MAINTENANCE AND OPERATION OF EQUIPMENT AND MACHINERY**

This program provides for the maintenance of Department equipment and machinery and for the operation of equipment when such costs cannot be identified with a specific project. To aid in properly coding the activities, a list of the most common "question-raisers" has been compiled.

**SERVICING OF NUMBERED ROAD EQUIPMENT**

Includes all costs (direct and indirect), for labor materials and equipment expended as a result of servicing equipment.

**ASSEMBLY      METHOD**

8111    01      NO. 1 P.M. INSPECTION AND ROUTINE SERVICE - Includes all action and costs related to the inspection and normal servicing of equipment such as lubrication, checking and/or changing oil, filters, wiper blades, electrical system checks, battery maintenance, clutch and brake adjustment, cooling system checks, etc. Repair work done as a result of the inspection (labor, parts and material) will be charged to the appropriate assembly. The production is measured in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8112    01      NO. 2 P.M. INSPECTION AND ROUTINE SERVICE - Includes all action and costs related to the semi-annual inspection, state inspection and normal servicing of equipment such as lubrication, checking and/or changing oil, filters, wiper blades, electrical checks, battery maintenance, tires, clutch and brake adjustment, cooling system checks, etc. Repair work done as a result of the inspection (labor, parts and materials) will be charged to the appropriate assembly. The production is measured in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8113    01      LABOR, EQUIPMENT AND MATERIALS FOR DISPENSING GASOLINE, ETC. - Includes all costs for labor, equipment and material for dispensing gasoline, lubricants, motor oil, anti-freeze, oil records as well as the automotive service person and the gas and lube truck operator is in direct and ORG-9999 will be recorded in the "DEPT. EQUIP. SERV. OR REP." column. The production is measured in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8114    01      SEASONAL INSPECTION - Includes all actions and costs related to the seasonal inspection of equipment. This includes labor, equipment and material necessary to assemble, clean, inspect and disburse equipment back to the field.

All repairs required prior to and as a result of the inspection shall be charged to the appropriate cost function. The production is measured in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8115    01      REPAIR/PM's STAND BY TIME - Include under this assembly any time charged by the operator who is waiting for repairs or preventive maintenance to be performed on the unit of equipment.

**REPAIR OF NUMBERED ROAD EQUIPMENT**

## ASSEMBLY      METHOD

8310    01      DIAGNOSTIC TESTING I TUNE-UP - Includes under this assembly all labor and material costs related diagnosing troubleshooting and/or tuning an engine. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8311    01      AIR INTAKE SYSTEM - Includes all actions and cost related to the repair of the air intake system such as manifold, hoses blower, air filter, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8312    01      COOLING SYSTEM - Includes all actions and costs related to the repair of the cooling system such as radiator, shroud, shutters, hoses, thermostat, fan, etc.  
The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8313    01      EXHAUST SYSTEM - Includes all actions and costs related to the repair of the exhaust system which includes the exhaust pipe, muffler, tailpipe and resonator, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8314 01 FUEL SYSTEM - Includes all actions and costs related to the fuel system such as the fuel tank, lines, pump, carburetor/injectors, filters, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8315 01 EMISSIONS SYSTEM - Includes all actions and costs related to the repair of the emissions system, such as the ERG valve, oxygen sensor, transmission coolant sensor and catalytic converter, etc. The product unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8316 01 ENGINE REPLACEMENT - Includes all actions and cost related to the replacement of engines, including the cost of the engine. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8317 01 BEARING INSPECTION REPLACEMENT - Includes all actions and costs related to the replacement of main or rod bearings, either following manufacturer's recommended change or where deemed necessary. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8318 01 OTHER ENGINE REPAIR - Includes all actions and assemblies not identified above. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8319 01 IN CHASSIS OVERHAUL - Includes all actions and costs related to a complete in chassis overhaul. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8320 01 AIR CONDITIONING - Includes all actions and costs related to the repair of air conditioning systems. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8330 01 DIAGNOSTIC TESTING - Includes all cost related to diagnosing troubleshooting and/or tuning an engine. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8331 01 AXLES/NON DRIVE - Includes all actions and costs related to the repair or replacement of non-drive axles only, such as trailer axles, lift axles, front axle on conventional unit. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8332 01 BRAKES, REPAIR/ ADJUST - Includes all actions and costs related to the repair of brake systems which includes electric, air and hydraulic systems and their component parts such as discs, rotors, bushings, cams, vacuum boosters and brake reservoirs, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8333 01 FRAME AND SUPPORTS - Includes all actions and costs related to the repair of frame rails and supports, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8334 01 STEERING - Includes all action and costs related to the repair of equipment steering systems such as steering box, tie rods and ends, idler arms, front end alignment, wheel seals, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8335 01 Suspension - Includes all action and costs related to the repair of equipment suspension systems or any of the components such as springs, shackles, pins, shock absorbers, sway bars, walking beams, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8336 01 WHEEL/RIM/HUB/BEARINGS - Includes all actions and costs related to the repair or replacement of components in these areas. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8340 01 ELECTRICAL DIAGNOSIS - Includes all labor cost related to the diagnosis of equipment electrical systems such as wiring, starting systems, cranking systems, batteries, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8341 01 CHARGING SYSTEMS - Includes all actions and costs related to the repair or replacement of the charging system components, such as alternators and regulators. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8342 01 CRANKING SYSTEMS - Includes all actions and cost related to the repair or replacement of the cranking system components such as starters, solenoids, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8343 01 BATTERIES - Includes all actions and costs related to the maintenance/ replacement of batteries, cables, ground straps, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8344 01 IGNITION SYSTEM - Includes all actions and costs related to the repair or replacement of the ignition switch and tumbler, electronic ignition etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8345 01 LIGHTING SYSTEMS - Includes all actions and costs related to the repair of all wiring systems, junction blocks, and the replacement of defective lights. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8346 01 GAUGES/INSTRUMENTS - Includes all actions and costs related to the repair or replacement of all gauges, instruments and sensors. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8350 01 HYDRAULIC DIAGNOSIS - Includes all labor costs related to diagnosing all components of the hydraulic system. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8351 01 HYDRAULIC CONTROL/VALVES - Includes all actions and costs related to the repair of hydraulic controls, valves, bypass valves. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8352 01 HYDROSTATIC PUMPS AND MOTORS - Includes all actions and costs related to the repair or replacement of all pumps and motors. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8353 01 HYDRAULIC LINES/FITTINGS - Includes all actions and costs related to the repair replacement s of all hydraulic lines and fittings. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8354 01 HOISTING DEVICE/CYLINDER PISTON - Includes all actions and costs related to the repair or replacement of hydraulic cylinders, hoists, pistons. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8355 01 HYDRAUUC PU MP, ADAPTER, REDUCER, SHAFTS - Includes all actions and costs related to the repair or replacement of all pumps, reducers, adapters and shafts. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8356 01 FILTRATION - Includes all actions and costs related to filtering the hydraulic system. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8361 01 SHEET METAL - Includes all actions and costs related to sheet metal repair or replacement such as doors, hood, fenders, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8362 01 CAB INTERIOR - Includes all actions and costs related to repair or replacement of any interior panels or hardware, floor mats. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8363 01 GLASS/MOULDINGS - Includes all actions and costs related to replacing glass, window and door moldings. The production unit is reported in PERSONNEL HOURS.



## ASSEMBLY      METHOD

8364    01      BODY - Includes all actions and costs related to the repair of the equipment body. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8365    01      BLADES AND BUCKETS - includes all actions and costs related to replacing all cutting blades and repairs to loader buckets. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8366    01      MOLDBOARDS/CIRCLE/A FRAME - Includes all actions and costs related to the repair or replacement of all moldboards, circles and A frames. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8371    01      PAINTING - Includes all actions and costs for sand blasting, preparation and painting of equipment. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8372    01      CLEANING - Includes all actions and costs for cleaning of equipment. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8373    01      TIRES/TUBES - Includes all actions and costs related to the repair or replacement of tires and/or tubes. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8374    01      SAFETY EQUIPMENT - Includes all actions and costs, related to repairing or replacing all safety equipment such as seat belts, flags, flairs, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8375    01      TRANSPORTATION - Includes all actions and costs for transporting equipment to and from garage facility for preventive maintenance or repairs as defined in FOREMAN's MANUAL CHAPTER 07. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8376    01      OTHER REPAIRS BY WORK ORDER - This assembly would only be used on an OS-520D (materials requisition) or an ID-73 (inventory transfer) when equipment repair parts are issued to a specific equipment repair work order but the items are to be used on one or more pieces of equipment, i.e. bolts, fuses, bulbs, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8377    01      MODIFICATION OF EQUIPMENT - Includes all actions and costs related to the repairs which change or add to the operation or function of the unit of equipment. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8379    01      OTHER MINOR REPAIRS - Includes all actions and costs related to repairs which cannot be properly identified with one of the other cost functions. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8380 01 CLUTCH REPLACE/REBUILD - Includes all actions and costs related to the repair or replacement of pressure plate, discs, pilot and throw out bearing, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8381 01 CLUTCH/ADJUST - Includes all actions and costs related to repairs or adjustments to the clutch and clutch linkage, (manual or automatic). The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8382 01 DRIVESHAFT - Includes all actions and costs related to the repair of the drive line. The drive line includes the driveshaft, U-joints and carrier bearings. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8383 01 DIFFERENTIAL REMOVE AND REPLACE - Includes all actions and costs related to removing and replacing the differential. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8384 01 DIFFERENTIAL REPAIR - Includes all actions and costs related to the repair of differentials. This includes the repair of the differentials gears, bearings, seals, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8385 01 POWER TAKE-OFF - Includes all actions and costs related to the repair or replacement of any parts relating to the power take-off. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8386 01 TRANSMISSION REMOVE AND REPLACE - Includes all actions and costs related to removing and replacing the transmission. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8387 01 TRANSMISSION REPAIR - Includes all actions and costs related to the repair of automatic and manual transmissions such as internal parts, linkage, modulator, the transfer case, torque converter, etc. The production unit is reported in PERSONNEL HOURS.

## ASSEMBLY METHOD

8388 01 AXLE DRIVE - Includes all actions and costs related to the repair or replacement of front and rear axles only. This includes front wheel drive vehicles and all-wheel drive vehicles. The production unit is reported in PERSONNEL HOURS.

**REPAIR OF ROAD EQUIPMENT**

## ASSEMBLY METHOD

8501 01 IN-HOUSE WARRANTY REPAIRS - Includes all actions related to the equipment warranty repairs done in department facilities and are recoverable from the OEM. The production units are measured in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8511    01      REPAIR OF NUMBER EQUIPMENT DAMAGED BY ACCIDENT - Includes actions and cost related to repairing and painting a specific unit of road equipment which has been damaged in an accident. The production units are measured in PERSONNEL HOURS.

## ASSEMBLY      METHOD

8521    01      THEFT AND VANDALISM - Includes all actions and costs related to the repairs of equipment or garage and shop equipment as a result of theft or vandalism to the unit of equipment.

## ASSEMBLY      METHOD

8611    02      REPAIR OF UNNUMBERED ROAD EQUIPMENT, GARAGE AND SHOP EQUIPMENT, MACHINERY AND TOOLS - Includes all cost for labor, materials, and equipment related to the repair and painting of garage and shop tools and unnumbered road equipment. The production is measured in PERSONNEL HOURS.

**SPECIAL PAYMENTS**

## ASSEMBLY      METHOD

9812    01      IN-SERVICE TRAINING - Include under this assembly all costs relative to specialized training courses undertaken by the Department for those employees in the Maintenance Districts, who for payroll purposes, are regularly assigned to Program 813, MAINTENANCE AND OPERATION OF EQUIPMENT & MACHINERY. Other specialized training courses such as defensive driver training, management seminars, training employees to operate Department equipment, etc. shall be charged to Work Program 719-9812-01, IN-SERVICE TRAINING. The production unit is reported in PERSONNEL HOUR.

## ASSEMBLY      METHOD

9829    01      ADMINISTRATION - Includes fixed, predictable costs that cannot be assigned to specific units of equipment, as well as utilities and clerical and supervisory personnel who spend the majority of their time on equipment related projects. Transfer of new equipment or equipment to sale sites shall be charged to this cost function. The production unit is measured in PERSONNEL HOURS.

## ASSEMBLY      METHOD

9846    01      R.O.A.D. & CDL TRAINING - Includes all actions related to the instructing/training for taking the Certified Driver License Test. The production unit is measured in PERSONNEL HOURS.

**822 MAINTENANCE AND OPERATION OF BUILDINGS AND GROUNDS**

## ASSEMBLY      METHOD

1201    01      MAINTENANCE OF BUILDINGS - Includes all actions related to the maintenance of Department owned or leased buildings such as janitorial work (sweeping and washing floors, washing windows, disposing of trash, cleaning buildings). Also includes the payments for electrical expenses for the buildings, heating and other fuel costs associated with maintenance and operation of the buildings, water and sewage expenses and payments for building rental for storage of equipment, excluding automobiles. DO NOT include cleaning of equipment. The production unit is measured in PERSONNEL HOURS.

## ASSEMBLY      METHOD

1202    01      MAINTENANCE OF GROUNDS - Includes all actions related to the maintenance of Department owned or leased grounds such as removal of snow from walks, disposing of litter, mowing, fertilizing, watering of the grounds, etc. DO NOT include roadside rests. They will be charged under Allotment 714. The production unit is measured in PERSONNEL HOURS.

**ASSEMBLY      METHOD**

9812    01      IN-SERVICE TRAINING - Include under this assembly all costs relative to specialized training courses undertaken by the Department for those employees in the Maintenance Districts, who for payroll purposes are regularly assigned to Program 822, MAINTENANCE AND OPERATIONS OF BUILDING AND GROUNDS. Specialized training courses under this assembly shall include all courses directly related to the MAINTENANCE AND OPERATION OF BUILDING & GROUNDS. Other specialized training courses such as defensive driving management seminars, training employees to operate Department equipment, etc., shall be charged to Work Program 719-9812-01, IN SERVICE TRAINING. The production unit is reported in PERSONNEL HOURS.

**SPECIAL CASES OF 813 CODING****PARTS CHASER**

If they are picking up repair parts for a specific piece of equipment charge their time to the Standing Work Order for assembly 813982901 and enter the specific equipment number. If parts are picked up for numerous pieces of equipment, charge to the same Standing Work Order and enter organizations and four 9's for the equipment number.

**TIRE PERSON** If they are mounting tires for stock charge their time to the Counties Standing Work Order with assembly 813837301.

**DISMANTLING EQUIPMENT**

Dismantling of all equipment shall be charged to the Standing Work Order for the assembly 813837901.

**PICKING UP NEW. EQUIP. & TRANSFER EQUIP. FOR SALE**

When picking up new equipment or transferring equipment for sale charge to the Standing Work Order for the assembly 813837501.

**WARRANTY WORK**

If a vehicle is returned for warranty work, the operator shall charge their time to the work order which covers the job being done and list the equipment number in the "DEPT. EQUIP. SERV. OR REP" TRANSFER OF NEW EQUIPMENT The transfer of new equipment from the Equipment Division to the District and/or County shall be charged to the Standing Work Order with assembly 813837501.

**TRANSFER OF NEW EQUIPMENT**

The transfer of new equipment from the Equipment Division to the District and/or County shall be charged to the Standing Work Order with assembly 813837501.

**MISCELLANEOUS DEFINITIONS****ACTIVITY HOURS**

The total personnel hours expended in performing an activity (711-7212-01 Unpaved Shoulder Grading). ACTIVITY HOURS equals PRODUCTION HOURS.

**AGREEMENT NUMBER**

The ten-digit Purchase Order Number given to the rental agreement for a piece of outside rented equipment.

**CHARGED WORK CENTER**

The immediate supervisor of the employee or the foreman immediately responsible for the work being performed.

**ASSEMBLY**      The code which describes the nature of work performed under a given program. It is the set of four digits in the Work Program Number.

**CREW** Crew is the personnel-power used to perform an activity. It usually consists of a foreman, equipment operators, and non-equipment operators. The performance standard specifies the crew required to achieve standard performance.

**DIAMETER BREAST HEIGHT**

Diameter of the tree, four (4) feet above ground. (D. 8. H.)

**DELAY** A delay is an occurrence or set of conditions which slow down or stop progress on the work to be performed. A delay of less than one-half hour elapsed time will be reported against the scheduled activity; if over one half hour the crew shall be assigned an alternate activity and their time reported is the alternate activity.

**EMPLOYEE BENEFITS IN-SERVICE TRAINING**

To qualify as In-Service training the session should meet the following IN-SERVICE TRAINING criteria:

1. It should be pre-planned and scheduled.
2. It should have a predetermined, measurable instructional objective.
3. It should have as a base, Department approved training materials.
4. It should include instructor preparation.
5. It should utilize the principle of learning.
6. It should be recorded on an individual record card of training when completed.

**EQUIPMENT DELAY**

Delay of productive work accomplishment because of the absence, breakdown, or improper functioning of a piece of equipment required by the activity.

**EQUIPMENT NUMBER**

The official number given a piece of Department owned equipment. It consists of a "P" followed by 2 sets of numbers. The first set has 3 digits and the second as 4 digits, i.e., Pxxx-xxxx.

**EQUIPMENT TRANSFER**

The movement of equipment on flat bed trailers, self-propulsion, or by other means to or from a work site or inter county or inter district. Transfer time is reported in personnel hours. Transfer of New Equipment or transfer of equipment for sale shall be charged to Program 813, Cost Function 8375.

**FIELD REPAIR** To restore a piece of equipment to working condition at work site, toolbox, or any location remote from the county or annex garage. A field repair is usually minor in scope and generally considered as an emergency or temporary repair.

**WORK CENTER NUMBER**

The two-digit number given to each foreman to identify them on reports.

**PERSONNEL HOURS** The elapsed time in hours multiplied by the number of employees used to perform the related action.

**MATERIAL DELAY**

A material delay is a delay caused by the absence of material or the necessity to modify incorrect material.

**METHOD** A method states how an assembly is to be performed. The basic methods are manual or mechanized with possible further divisions according to type of equipment used.

**MFC** MAINTENANCE FUNCTIONAL CODE - The highway functional classification system. This code is used to gather maintenance cost information by functional class of highway.

A = INTERSTATE

B = OTHER FREEWAY, EXPRESSWAY or PRINCIPAL ARTERIAL C = MINOR ARTERIAL

D = COLLECTOR

E = LOCAL LAND ACCESS

**NON-OPERATOR**

Equipment which does not normally require a classified equipment operator to operate. This type of equipment includes:

CREW CAB	HEATING KETTLE	TOW PAVER	CHAIN SAW	TOWED BROOM
AIR COMPRESSOR	COMPACTOR	POWER BRUSH	POWER ROUTER	ETC.

**OFFSET**

The centerline distance measured in feet from the beginning of a segment. This figure is used to identify the location of an item within a segment, such as a pipe, a string of guide rail, etc.

**PLANT**

The 4-digit District/County code. -

**PAY CODE**

A 2-digit code used to record time worked other than normal time, such as holidays, seventh day, etc. See Chapter - 03 for a list of pay codes and their usage.

**PERFORMANCE STANDARD**

A performance standard is like an average, not always exact but a good working figure which is reasonable, fair, and can serve as a readily available benchmark for the activity and method to which it applies. It represents a reasonable expectancy of productive output by a crew of specified personnel and equipment. The performance standard is in terms of personnel hours per production unit.

**PERFORMANCE HOURS**

The number of personnel hours expended on an activity where a PERFORMANCE STANDARD has been established and is in effect. This term will normally only appear on the MORIS performance reports.

**PHASE**

The code that identifies a project as type of work being done whether P.O.C., D.F., Design, Right-of-Way, Maintenance, etc. The phase shall be coded as follows:

**IDENTIFIES**

CODE	
DESIGN	21
UTILITIES	5
RIGHT OF WAY	6
HIGHWAY CONSTRUCTION	7
Maintenance CONTRACTS OR P.O.C.	8
Maintenance ALLOTMENTS	9
711, 712, 713, or 714 & OTHER DEPT. FORCE	

**PRODUCTION** Completion of required maintenance work in accordance with performance standards. Production is based on an out-come which can be reasonably measured. (Tons, Gallons, Etc.)

**PRODUCTION HOURS**

The personnel hours expended in performing productive work as defined in the performance standards. PRODUCTION HOURS are equal to PROJECT HOURS WORKED.

**PRODUCTION CODE**

A single character alpha or numeric code used to represent the Production Description used for the work activity involved.

**PRODUCTION DESCRIPTION**

A measurable expression of work performed.

**PRODUCTION UNITS**

The completed quantity of the described production.

<b>PROGRAM</b>	A coding in the Accounting System for the allocation of funds for Department programs. It is the set of three digits appearing first in the Work Program Number. (711 - General Maintenance, 712 - Winter, 713 -Traffic, 714 - Roadside, etc.)
<b>NOTIFICATION</b>	A maintenance work activity as described in the Assembly.
<b>SR</b>	The 4-digit State Route number assigned to designate a highway. The values are numeric.
<b>SAFETY</b>	Safety is usually related to traffic control and warning devices associated with work site or area protection. The Publication "Work Area Traffic Control" determines the type of protection required for each highway type.
<b>SECTION</b>	The Section Number consists of either three digits or two digits followed by an "M" or three zeros. It is part of the State Project Number. The composition of the number is as follows:
<b>ALLOTMENT</b>	STATE PROJECT NUMBER 381     xxx 383     xxm 71X     000
<b>SEGMENT</b>	Designated sections of a State Route. The assigned values are numeric beginning with 010 and increasing incrementally by 10 (020, 030, etc.). A segment can vary between 1300 and 3800 feet and usually begins and ends at easily identifiable features such as intersecting roads, bridges, culverts, etc.
<b>SHOP REPAIR</b>	A shop repair is performed to restore a piece of equipment to first class working condition at a county or annex garage. It may be used as a follow up to a field repair.
<b>STANDARD HOURS</b>	The number of productive personnel hours specified by the performance standard multiplied by the number of units of work accomplished. The performance standard is in terms of production units per personnel hour.
<b>STANDBY DELAY</b>	Delay of productive work accomplishment until people and equipment have reported to designated locations.
<b>STATE PROJECT NUMBER</b>	The State Project Number is a 15-digit alpha numeric code used by Design, Right-of-Way and Construction. It identifies a highway through its various phases. The order of the 15 digits is outlined in Master Policy Statement 20601.002. The State Project Number Block on the Crew Daily Project Time Record and Diary also requires a 15-digit alpha numeric code which differs somewhat from the one used by Design, etc. The 15 digits of the "Maintenance" State Project Number are in the following order:
<b>DIGI</b>	SIGNIFIES PLACEMENT  1           Road System 2-6        State Route Number or Work Order 7           Parallel Extension or Ramp 8           Phase of Work 9-11       Section Number 12-15      Organization/County

Note: The definitions of the various components discussed elsewhere in this section applies only to the "Maintenance" State Project Number.



**SYSTEM** A one (1) digit alpha code which identifies the functional classification of a given road segment. It is also known as the Maintenance Functional Code.

**TRAFFIC CONTROL**

Work site protection to warn traffic that a temporary reduced speed or stop condition exists. Warning devices such as flag person, traffic cones, signs, crash trucks, etc. are used.

**TRAINING IN-SERVICE**

See EMPLOYEE BENEFITS IN-SERVICE TRAINING

**WORK ORDER** Prioritized list of Notifications.

**SPECIAL CASES OF 813 CODING**

**PARTS CHASER**

If they are picking up repair parts for a specific piece of equipment charge their time to the Standing Work Order for assembly 813982901 and enter the specific equipment number. If parts are picked up for numerous pieces of equipment, charge to the same Standing Work Order and enter organizations and four 9's for the equipment number.

**TIRE PERSON** If they are mounting tires for stock charge their time to the Counties Standing Work Order with assembly 813837301.

**DISMANTLING EQUIPMENT**

Dismantling of all equipment shall be charged to the Standing Work Order for the assembly 813837901.

**PICKING UP NEW EQUIPMENT & TRANSFER EQUIPMENT FOR SALE**

When picking up new equipment or transferring equipment for sale charge to the Standing Work Order for the assembly 813837501.

**WARRANTY WORK**

If a vehicle is returned for warranty work, the operator shall charge their time to the work order which covers the job being done and list the equipment number in the "DEPT. EQUIP. SERV. OR REP".

**TRANSFER OF NEW EQUIPMENT**

The transfer of new equipment from the Equipment Division to the District and/or County shall be charged to the Standing Work Order with assembly 813837501.