

**CSA 06-001**  
**January 27, 2006**

# **Office of Auditor General Control Self Assessment Report**

**❧ Office of Bus Maintenance, Landover Garage,  
Mechanics and Supervisors**



# **Control Self Assessment Report No. 06-001**

## **☞ Questions**



**☞ If you have any questions or comments pertaining to this Control Self Assessment Report, please contact:**

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**OFFICE OF AUDITOR GENERAL  
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

**Control Self-Assessment (CSA) of the Office of Bus Maintenance, Landover  
Garage, Mechanics and Supervisors**

**To: OPER – James Hughes**

Participants from the Office of Bus Maintenance (BMNT), Landover Garage (LNMT) performed an analysis of employees' concerns and evaluations on improving safety and security, partnering, and stewardship. The purpose of the Control Self-Assessment (CSA) was to evaluate the effectiveness and efficiency of the administrative process, to improve the working environment, and to improve the work process, identify areas of strengths and weaknesses for resolution, and suggest ideas for improvement. These participants identified concerns for BMNT. Participants also offered their recommendations to address these concerns.

We are submitting these concerns for evaluation and resolution. The identification and resultant solution of these concerns will contribute to improving the efficiency and effectiveness of Bus Maintenance as it relates to safety administration, the work process, and internal customer service between BMNT and other offices and departments.

We have summarized the concerns and recommendations after sessions with CSA participants.

**Background**

The Superintendent of LNMT requested the Office of Auditor General to survey the employees of the Landover bus garage on the effectiveness of the administrative process and suggest enhancements for improvements.

We specifically identified the following objectives:

- To improve the working environment.
- To improve the work process.
- To improve internal customer service.

## Scope

Employees of the LNMT from front line mechanics to supervisors participated in the CSA Workshops.

## Methodology

Participants completed a self-assessment survey pertaining to administrative concerns and the working relationship between LMNT and other offices/departments.

## Conclusions and Concerns

We have provided a summary of the positive results and primary concerns of the participants of LMNT as follows:

Supervisors and mechanics agree on the following issues:

- Each employee is responsible for his/her conduct.
- Management and employees are expected to comply with laws and regulations.
- All employees are aware of what is expected of him/her in the workplace.
- Unlawful conduct is prohibited in the workplace.
- Employees are entrusted to perform their jobs well.
- Employees are proud of their public service and it is reflected in the manner in which they perform their duties.
- Employees are motivated to achieve above average work performance.
- Overall, employees enjoy their job.

Mechanics agree that employees assist one another whenever a problem occurs, employees clearly understand what they must do in order to perform their duties, and employees work to continuously improve services provided by LMNT.

In addition, supervisors agree on the following:

- Training and education for upward mobility of employees and supervisors is encouraged.
- Management is concerned about any problems or complaints and works to resolve concerns.
- Supervisors regularly thank employees within their work group when the mechanics have performed a job well.
- Employees' contributions and innovations are recognized.
- Decisions are made by people with the expertise, knowledge and authority.



- Supervisors support the Espoused Values and fully understand their duties, responsibilities and authority.
- There is open discussion regarding job responsibilities and duties between supervisors and employees.

During the sessions, participants stated that the superintendent has consistently supported the employees and that the participants have noted improvements at LMNT as a result of the superintendent's hard work and follow through to resolve safety concerns, supplies and parts concerns, and other issues.

The workshops consisting of mechanics and supervisors identified the following seven concerns regarding LMNT's administrative process and involvement with other offices and departments, which management should review, evaluate, and address. The attachments to this report contain a narrative summarizing the concerns and recommendations of these sixty-two participants.

1. Security Concerns
2. Safety Concerns
3. Equipment Concerns
4. Communication Needs Improvement
5. Team Building Needs Strengthening
6. Parts and Inventory Management Needs Improvement
7. Employee Development Needs Improvement
8. Managerial Concerns

AUDT provided the Superintendent of LMNT with a briefing of the survey results and recommendations on December 1, 2005.

## BMNT's Response

BMNT has reviewed the areas of identified concerns as well as the recommendations contained in the Control Self-Assessment Draft Report prepared by the Office of the Auditor General. AUDT will follow-up with BMNT to ensure that corrective action is taken.

James C. Stewart  
Auditor General

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## 1. Security Concerns

### Improved Security Needed at the Landover Bus Garage and Employees' Parking Lot

The participants stated concerns regarding the lack of security at the Landover garage and the employees' parking lot. According to the participants, WMATA has not taken adequate steps to secure the maintenance garage and employees' parking lot from unauthorized persons and vehicles. The lack of security has been an on-going concern of the employees that work at the Landover Bus Division, according to the participants. The participants stated that there are times when some of the employees do not feel safe working at the garage or walking to the employees' parking lot. The participants stated a need for security service at the Landover garage to limit unauthorized access to the garage and employees' parking lot.

## 2. Safety Concerns

### Insufficient Lighting

Most of the participants stated that the lighting at the Landover Bus Division needs improvement. The participants stated that the garage has inadequate lighting and that there are times when it is difficult to work on the buses due to the poor lighting. According to the participants, additional lighting is needed in the garage and the light fixtures need cleaning to enhance lighting. In addition, the participants stated that there are times when light bulbs on the bus lot and employees' parking lot are not changed timely. According to the participants, they have discussed their concerns with LMNT's Superintendent who has made several attempts to address these concerns with another office to no avail. AUDT referred the lighting concerns to TSSM, Power.

### Management's Actions

TSSM, Power, in coordination with CENF, reviewed the lighting needs in the garage and on the lots. CENF measured the lighting level in the garage and determined that the lighting is inadequate in certain areas of the garage. CENF stated that the lighting in the garage needs to be monitored and that annually TSSM, Power needs to make arrangements to clean and relamp the fixtures. CENF stated that they will measure the lighting level in the garage once TSSM, Power completes the work to ensure that the mechanics have adequate lighting.

TSSM, Power cleaned and relamped all of the fixtures in the service bays, steam cleaning area, and bus wash areas. TSSM, Power installed outlets in the service bays to support portable lighting. TSSM, Power has taken steps to replace all of

the light fixtures that were not working on the bus lot and employees' parking lot. In addition, TSSM, Power is continuing to replace all of the other light fixtures in the parking lots. TSSM, Power made arrangements for a bucket truck that will reach the pole lights in the bus parking area and have started replacing the light fixtures on top of the poles (heads). According to TSSM, Power, the old fixtures must be taken down and the supporting yoke removed and installed on new fixtures. Also, TSSM, Power is removing the cable clamps from the old fixtures and installing them on new fixtures. Once this task is completed, Power will place the new fixtures on the pole mast, rewire and adjust the proper light spread. TSSM, Power anticipates that the pole lights in the parking area will be completed in March 2006.

### [Resources Needed to Complete the Retrofit of the Orion VI Buses](#)

The participants stated concerns regarding the mechanics' safety while performing maintenance of the Orion VI buses. According to the participants, the engine coolant on the Orion VI buses has to be put in at the top of the bus which requires the use of a ladder on slippery floors. If an Orion VI revenue bus loses coolant while in service, the bus must be towed to the division for service because it is unsafe for the mechanics to work on these buses while in service due to the bus design. According to the participants, the Orion VI buses are located at two bus divisions and BMNT should consider serving these buses during the mini inspections.

### Management's Actions

BMNT requested the assistance of the bus engineers to retrofit the Orion VI buses. The engineers retrofitted one bus. BMNT ordered parts to retrofit 60 buses. The vendor delivered the parts in May 2005. LMNT requested resources and manpower to retrofit the buses. BMNT provided the resources and manpower to retrofit 32 buses. LMNT anticipates that the remaining 28 buses will be completed during January 2006.

### [Inadequate Space at the Landover Garage](#)

The participants stated that the Landover Garage has inadequate space to accommodate the number of buses assigned to LMNT for maintenance. There is inadequate space to store equipment. Furthermore, the employees do not have a lunch room.

According to the participants, WMATA should consider the possibility of building a separate building on the property that includes a four door bay area for bus maintenance and a storage area, similar to the building at Four Mile Run. The participants stated that PDEC should review this matter and determine the feasibility of expanding the garage or building a separate building.



### Floor Reflectors Needed

The participants stated a need for floor reflectors to guide the mechanics backing buses into the bay areas for maintenance. According to the participants, installing floor reflectors could reduce accidents and damage to equipment. LMNT requested PLNT to evaluate the mechanics' concern and to provide recommendations to improve the safety for mechanics backing buses into the bay area.

### Management's Actions

PLNT reviewed the concern and advised LMNT not to install the metal strips in the floor because it required the breaking of the concrete floor. PLNT painted yellow lines to guide the buses into the bay area. In addition, PLNT is researching the use of a reflective paint that could possibly improve the situation.

### Supervisors Need to Monitor the use of Jack Stands

According to the participants, there are times when some of the mechanics are rushing to ensure that the buses are ready to support operations and they are not using jack stands to help support the bus. The participants stated that the supervisors need to monitor this situation and enforce BMNT's policy regarding the use of jack stands to increase safety for the employees and to protect the buses from possible accidents.

### Road Calls

The participants stated that there are times when a few of the mechanics responding to a road call are not following BMNT's policy by getting under the bus to adjust the brakes to enable the mechanic to drive the bus to the garage. According to the participants, LMNT has reviewed this policy with the mechanics on several occasions and has instructed the mechanics not to risk their safety and to tow the bus to the garage. Some of the participants stated that there have been improvements complying with the policy. However, according to the participants LMNT needs to continue to reinforce the policy.

According to the participants, there are times when BTRA's street supervisors leave the location of service calls before the mechanics complete their work. For safety reasons, the participants stated that the street supervisors should remain with the mechanics until the service call is finished.

### Personal Protective Equipment

The participants stated that there are times when some of the mechanics are not wearing the proper personal protective equipment, such as safety glasses and

safety vest. Supervisors need to monitor this situation and enforce BMNT's policy regarding the use of personal protective equipment. Furthermore, supervisors need to ensure that safety rules are practiced at all times.

#### Improvements Needed Cleaning the Garage

The participants stated concerns regarding all shifts cleaning the garage. According to the participants, there are times when the midnight shift does not participate in the cleaning of the garage. During our briefing meeting the participants stated that there have been some improvements and that LMNT cleans the garage every Wednesday. However, due to work demands on the midnight shift, there are times when the cleaning of the garage is not completed. According to the participants, all shifts should clean the garage, including washing the floor.

#### Ladders Needed

According to the participants, LMNT needs to replace the dilapidated ladders that were removed from LMNT for safety reasons. LMNT ordered new ladders in May 2005 and some of the ladders were received. However, LMNT has not received the remaining ladders. Currently, the mechanics are using carpenter's ladders which do not have a safety rail. The mechanics stated that the carpenter's ladders should be removed from the garage.

### **3. Equipment Concerns**

The participants stated that there are times when equipment is broken and the employees do not report the broken/damaged equipment to their supervisors to enable repairs to be made. In some cases, employees do not report damaged equipment because they do not want to be held responsible for damaging the equipment which results in equipment not being available when needed. According to the participants, mechanics should take responsibility for any equipment that they damage and the mechanics should inform their supervisor regarding equipment not working properly to ensure that equipment repairs are addressed timely. The participants stated that the supervisors should monitor the equipment to ensure that the equipment is working properly. Furthermore, supervisors need to communicate any equipment problems to the other shifts.

During our briefing session, the participants stated that the superintendent has coordinated equipment repairs with PLNT to ensure that equipment is properly maintained. The participants stated that PLNT is doing an excellent job maintaining the equipment. PLNT does monthly inspections to ensure that equipment is working properly. In addition, LMNT has addressed the participants' concerns by replacing jack stands, bottle jacks, chains on the tow truck, and air lines.

### Lifts

The participants stated that LMNT has insufficient lifts to meet the work demand and that too many of the post lifts were removed from the garage. In addition, the new lifts are inadequate for working on the parallelogram buses and the lifts do not meet the weight capacity. Some mechanics are not using panel covers with the Post lifts to cover the open holes. The participants stated that the supervisors should monitor employees to ensure that panel plates are used to cover the open holes to prevent accidents.

The participants stated that the operating procedure for the Sefac lift is in conflict with the manufacturer's operating procedures. BMNT's lift procedures require the mechanics to apply the bus brakes to ensure that the bus will not roll off of the lift. However, applying the bus brakes on the Sefac lift results in too much tension and damages the lift. Therefore, PLNT monitors the lifts frequently and makes repairs to ensure that the lifts are in working order and safe to use. The participants stated that PLNT's lift mechanics provide excellent service repairing the lifts. According to the participants, BMNT needs to review this matter and provide a procedure to safely use the Sefac lift without damaging the lift.

### Exhaust Extraction System

The participants stated that LMNT continues to have problems with leaking hoses although BMNT installed a new exhaust extraction system at LMNT in November 2005. The hoses will not withstand the heat from the buses which results in the hoses burning. IRPG brought this matter to the attention of the contractor who took steps to correct the problem. However, LMNT continues to experience problems with the hoses. According to the participants, IRPG should review this matter, determine the cause of the problem, and recommend a solution to enable the equipment to work properly.

### Management's Actions

We reviewed this matter with the project manager who stated that IRPG took steps to address the problem with the hoses and IRPG will continue to monitor performance. IRPG plans to review this matter with LMNT, and if the hoses are not meeting the contract specifications, IRPG will contact the manufacturer to resolve any performance issues.

### Tool Room and Specialized Tools

The participants stated that LMNT did not have the necessary specialized tools for the mechanics to use to maintain the brakes on the low floor buses. However, BMNT took steps to have the tools designed and provided to the mechanics in June 2005. The participants stated that in the future, BMNT needs to ensure that

specialized tools are identified, designed and available for the mechanics to use at the same time that BMNT takes over the responsibility for the maintenance of the new buses.

According to the participants, each shift should have specialized tools and a tool room. The participants stated that BMNT's management indicated plans for a tool room but the room never materialized due to a lack of space. However, LMNT's superintendent is in the process of establishing a tool area for the mechanics.

#### **4. Communication Needs Improvement**

The participants stated that improvements are needed to ensure the sharing of information between shifts and to ensure that all mechanics participate in a daily safety meeting. According to the participants, the day shift is in the tool box meeting when the midnight shift is leaving which results in inadequate communication between the midnight and day shifts. According to the participants, LMNT should consider changing the time of the tool box meeting to improve communication between the shifts.

The participants stated a need for computers to support operations. According to the participants, LMNT has three computers for the mechanics to use and that LMNT needs eight additional computers to support plans to have a terminal located at every other lift. In addition, the participants stated that LMNT needs to provide the mechanics adequate time to prepare daily documentation of work activities.

#### **Management's Actions**

During our briefing meeting, the participants stated that the superintendent of LMNT took action to address their concern. LMNT is having regular tool box meetings on all shifts and communication between shifts has improved as a result of LMNT's leadmen reporting to work early so that they can meet with the shift supervisor to discuss the status of work and any safety issues. Furthermore, every morning the superintendent attends the tool box meeting and the mechanics have an opportunity to discuss work assignments and communicate with their supervisor and superintendent any issues and/or concerns. In addition, LMNT took steps to require the mechanics to prepare supporting documentation after each assignment is completed rather than at the end of the day. Repeatedly the participants stated that the superintendent works with the mechanics and supervisors to address their concerns.

## 5. Team-Building Needs Strengthening

Some of the participants expressed concerns regarding the approach to Preventative Maintenance Inspections (PMIs). According to the participants, there are times when the PMIs are completed but the defects are not addressed which results in buses being placed in the cripple pile. The participants stated that too many people are assigned to inspections and not enough mechanics assigned to repairs and floor work. According to the participants, the approach to PMIs has divided the mechanics into two separate groups working independently rather than one group with the same goals.

According to the participants, everyone does not work in the same manner, and some employees are unwilling to complete work started by another mechanic because it is difficult to work behind another mechanic. In some cases, mechanics are not informed when a mistake is made. For the most part, mechanics assist one another whenever a problem occurs. However, in other cases, mechanics are aware of an error but they are unwilling to provide information to another mechanic to correct the problem. The participants stated that there are times when some mechanics do not do their fair share of the work which results in additional work for the other mechanics. According to the participants, LMNT's supervisors should take action when mechanics are not on target or when errors or mistakes are identified by bring the concern to the attention of the person who made the error so that the employees can learn from their mistake and prevent the error in the future. In addition, the participants stated that the supervisors need to be more active in the work rather than directing problems to the leadmen because they are not in a position to take disciplinary action against employees. To enhance operations, according to the participants, LMNT needs to emphasize the Espoused Values for Integrity to improve the working relationship between mechanics and between shifts.

### Management's Actions

LMNT's Superintendent took steps to address the mechanics' concerns by requesting assistance from ODEV to enhance team building. A training and development specialist from ODEV worked with the employees to strengthen team building and trust. In addition, the superintendent altered the approach to PMIs by having two mechanics assigned to a bus to perform the PMI and to address defects. Furthermore, to enhance a common goal and to strengthen team building, the leadmen provide all of the assignments for PMIs, repairs and floor work, rather than supervisors assigning the work and each group working separately. The supervisors monitor the entire maintenance process which has enhanced team work and LMNT's common goals.



## 6. Parts and Inventory Management Needs Improvement

According to the participants, inventory planning needs improvement to ensure the availability of stock items and parts. In addition, the participants stated that PRMT needs to enhance LMNT's operations by improving internal customer service. The participants stated that mechanics waste too much time trying to locate the parts' names and numbers. The mechanics stated that the stock clerks could be more helpful in providing stock numbers since the stock clerks are familiar with the parts and their location in the stock room. According to the participants, the stock clerks should be in a position to provide the parts without the mechanics wasting time locating the parts' numbers.

### Management's Action

During our briefing session, the mechanics stated that PRMT has made some improvements. However, LMNT has noted some recurring problems with the implementation of Peoplesoft. Therefore, LMNT is expediting purchases to ensure that LMNT has the necessary parts to meet operations.

## 7. Employee Development Needs Improvement

The participants stated that OPAS needs to improve technical training for the mechanics and that technical training should be offered on site and provided on all shifts with qualified instructors. The participants stated that some employees do not know how to properly use some of the equipment. For example, some employees performing welding have not attended training, which could result in an unsafe condition. According to the participants, OPAS should provide a systematic training program to ensure that all employees have an opportunity to attend training. According to the participants, operations could improve with hands-on training. OPAS needs to tailor the training to meet LMNT's needs rather than the mechanics receiving training that they will not use in the near future. In addition, the participants stated a need for computer training.

The participants stated that some of the new mechanics have ASE certification but they are unable to perform the job. According to the participants, BMNT needs to provide a technical skills supervisor to provide training and to work directly with mechanics to ensure that they understand the process to complete assignments. In addition, the participants stated that BMNT should consider establishing a learning laboratory at LMNT to enhance operations and opportunities for promotions.

The participants stated that BMNT should consider an upward mobility program for the cleaner shifters. Furthermore, the participants stated a need for the mechanics at LMNT to have the same opportunities for advancement in WMATA

as other employees in BMNT rather than limiting their opportunities for advancement to LMNT. According to the participants, The Division of Workforce Development and Administration (WFDA), Office of Employee and Labor Relations (LABR) should consider negotiating with Local Union 922 of the International Brotherhood of Teamsters and Local Union 689 of the Amalgamated Transit Union AFL-CIO to provide LMNT's mechanics with opportunities to work at various BMNT locations without jeopardizing their seniority.

#### Management's Actions

During our briefing session, the participants stated that OPAS took action to address training concerns and that all of the mechanics have attended training. For example, OPAS provided on-site training for brakes, air system, and trouble shooting for transmissions and engines. Furthermore, BMNT has provided LMNT with a technical supervisor who is working with the mechanics and providing hands-on training.

#### **8. Managerial Concerns**

According to the participants, overtime rules are not always followed. In some cases, overtime is posted but not observed. In other cases, mechanics performing PMIs are given preferential treatment for overtime. This matter was discussed with LMNT's superintendent who took steps to ensure that mechanics sign up for overtime as one group, rather than separate groups, and that overtime is assigned on the basis of seniority from rotating lists. However, LMNT's superintendent administers the overtime list rather than the shop steward or his designee. LMNT's supervisors stated that WFDA LABR should consider negotiating with Local Union 922 to have the overtime list administered by the superintendent rather than administered by the shop steward or his designee.

### **RECOMMENDATIONS**

1. MTPD take steps to provide security services at the Landover Bus Division to prevent unauthorized persons and/or vehicles from entering the Landover garage and the employees' parking lot.
2. TSSM Power, in coordination with CENF, should periodically monitor the lighting at LMNT to ensure that the lighting in the garage is sufficient to support operations.

3. TSSM Power take steps to ensure that the light fixtures in the garage are scheduled for cleaning and relamping as a part of a regularly scheduled preventative maintenance program.
4. TSSM Power should monitor the light fixtures in the bus lot and employees' parking lot and ensure that light bulbs are replaced timely.
5. PDEC, in coordination with BUS, consider the feasibility of expanding the Landover bus garage or the possibility of building a separate building on the Landover bus property that includes a four door bay area for bus maintenance and a storage area.
6. BMNT's management should consider the feasibility of providing the mechanics with a lunch room within the Landover Bus Division.
7. PLNT continue the research regarding the use of a reflective floor paint to guide the mechanics backing buses into the bay areas to reduce accidents and damage to equipment and provide recommendations to LMNT to improve safety.
8. LMNT's supervisors emphasize BMNT's policy and monitor the mechanics use of jack stands to increase safety for the employees and to protect the buses from possible accidents.
9. LMNT reinforce the road call policy to ensure that mechanics responding to a road call are towing the bus to the garage and not getting under the bus to adjust the brakes.
10. BTRA ensure that street supervisors remain with the mechanics until the service call is finished.
11. LMNT's supervisors monitor and enforce BMNT's policy regarding the use of personal protective equipment.
12. LMNT's supervisors ensure that all shifts clean the garage weekly, including washing the floor.
13. LMNT, as soon as possible, provide new ladders to replace ladders that were removed for safety reasons and take steps to remove carpenter ladders from the garage.
14. LMNT's supervisors take steps to monitor equipment to ensure that the equipment is working properly and communicate to the other shifts any equipment problems.

15. BMNT take steps to address LMNT's concerns regarding the need for adequate and sufficient lifts to meet the work demand.
16. LMNT's supervisors ensure that mechanics are using panel covers with the Post lifts to cover the open holes.
17. BMNT address LMNT's concerns regarding the operating procedures for the Sefac lift and eliminate any possible conflicts with the manufacturer's operating procedures. If necessary, revise BMNT's operating procedures to safely use the Sefac lift without damaging the lift.
18. IRPG take steps to address LMNT's concerns regarding the hoses not withstanding heat when using the exhaust extraction system. If necessary, determine the cause of the problem, recommend a solution to enable the equipment to work properly, and resolve any performance issues with the manufacturer.
19. To strengthen operations, BMNT should take steps to ensure that specialized tools are identified, designed and available for the mechanics at the same time that BMNT takes possession of the new buses.
20. BMNT take steps to provide eight additional computers for mechanics to enable LMNT to have a terminal located at every other lift.
21. PRMT, in coordination with LMNT, should provide training for the supervisors and leadmen to enhance inventory planning and forecasting skills.
22. BMNT take steps to ensure that mechanics have computer training.
23. BMNT consider establishing a learning laboratory at LMNT to enhance operations and opportunities for promotions.
24. BMNT consider establishing an upward mobility program for the cleaner shifters.
25. WFDA LABR consider the feasibility of negotiating with Local Unions 922 and 689 to provide LMNT's mechanics with opportunities to work at various BMNT locations without jeopardizing their seniority.
26. WFDA LABR should consider negotiating with Local Union 922 to have the overtime list administered by the superintendent rather than administered by the shop steward or his designee.