

# TRANSIT OPERATIONS AND THE CHP: HOW TO BE SUCCESSFUL IN YOUR ANNUAL TERMINAL INSPECTION

CALIFORNIA TRANSIT ASSOCIATION

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April 29, 2009



**Metro**

# TRANSIT OPERATIONS AND THE CHP

- Los Angeles County Metropolitan Transportation Authority's Bus Fleet Profile
  - 2,540 buses operated by Metro (2,500 CNG buses)
    - 11 Metro operating bus divisions
  - 181 buses operated by contractors
    - 3 contractor operating bus facilities
  - One central maintenance bus facility
  - Administrative support groups
    - Vehicle Technology, Fleet Management, Quality Assurance, Warranty, Maintenance and Materiel Management "M3", and Operations Central Instruction
  - One central non revenue facility
    - with 15 satellite maintenance/repair sites
  - Over 1,700 Maintenance and 5,000 Transportation personnel
    - mangers, supervisors, operators, mechanics, service attendants, clerks, etc
  - 105 million bus miles per year
  - Over 380 million bus boardings per year

# TRANSIT OPERATIONS AND THE CHP

- Los Angeles County Metropolitan Transportation Authority's Bus Fleet Operations and Programs
  - Fleet Maintenance Program
  - Proper Equipment
  - Maintenance Instruction
  - Statistical Reporting
  - Quality Assurance
  - Transportation
  - Operations Central Instruction
  - Manpower Staffing
  - Pictures Tell It All
  - Communication

# TRANSIT OPERATIONS AND THE CHP

- Los Angeles County Metropolitan Transportation Authority's Bus Fleet Programs
  - Fleet Maintenance Program
    - Training of personnel to understand the maintenance program
    - Operator defect cards are generated daily; they need to be managed
    - Maintenance of assets is required and our program is based on manufactures recommendations and field experience
    - M3 system tracks 33 PMP items by pre-established mileage parameters
      - Daily monitoring is done to ensure compliance of mileage parameters
    - M3 generates Work Orders (WO) when item or component is due for inspection or replacement
      - Inspections could generate repair or replacement WOs
      - Mileage is zeroed out upon completion of inspection, repair or replacement



# TRANSIT OPERATIONS AND THE CHP

- **Los Angeles County Metropolitan Transportation Authority's Bus Fleet Programs**
  - **Proper Tools and Equipment**
    - Steaming equipment is essential in keeping engines and parts clear
    - Chassis jet keep under carriage clean
    - Proper lighting allows staff to see what they are doing
    - Hoist allows employees to work more efficiently
    - Shop environment is important for staff to work efficiently
    - Equipment must be maintained for effective use and safety
    - Having the tools to do the jobs

# TRANSIT OPERATIONS AND THE CHP

- Los Angeles County Metropolitan Transportation Authority's Bus Fleet Programs
  - **Maintenance Instruction**
    - 10 full time instructors provide the majority of training for staff
      - 28 classes of various types of specialized training is offered throughout the year
    - New employee orientation is critical
    - Service Attendant apprenticeship program has proven very effective
    - New product training offered by vendors is used to supplement Metro training



# TRANSIT OPERATIONS AND THE CHP

- Los Angeles County Metropolitan Transportation Authority's Bus Fleet Programs
  - Statistical Reporting
    - Computerized tracking using M3 system
    - Reporting updated weekly, monthly or yearly
      - Most reports are matrixed: individual division and all divisions
    - All Maintenance reports are on line under our Fleet Management web site
    - Reporting continues to evolve



# TRANSIT OPERATIONS AND THE CHP

- Los Angeles County Metropolitan Transportation Authority's Bus Fleet Programs
  - Quality Assurance
    - Provides eyes and ears for the maintenance program's effectiveness
    - Works closely with CHP on issues and new areas
    - Senior QA staff are present at every divisional CHP terminal inspection
    - Very senior and specialized staff are assigned full time to QA
      - Perform two simulated CHP inspections per division per year
      - Performs about 260 mechanical inspections per year of accidents or incidents
      - Investigate bus fires, product or component failures
      - Oversees bus tire contract of 18,000 tires
      - Follows up on PMP parameter changes for effectiveness



# TRANSIT OPERATIONS AND THE CHP

- Los Angeles County Metropolitan Transportation Authority's Bus Fleet Programs
  - **Transportation**
    - Responsible for operators
      - Bringing up to speed operators returning from leaves
      - Record checks on new transfers
      - Pre-trip inspections being completed and documentation
      - Operator proficiency of equipment operated
    - Responsible to ensure operators maintain all required certifications
      - Valid CDL Class B
      - Valid Medical Certificate
      - VTT
      - Driver log (if needed)



# TRANSIT OPERATIONS AND THE CHP

- Los Angeles County Metropolitan Transportation Authority's Bus Fleet Programs
  - Operations Central Instruction
    - Provides initial driver training and certification for all Operations staff for CDL Class A and B
    - Teaches fundamentals of operator's responsibilities
    - Follow up training for problematic employees
    - Service as central clearing house of new rules and regulations
    - Provides coordination for divisional training programs



# TRANSIT OPERATIONS AND THE CHP

- Los Angeles County Metropolitan Transportation Authority's Bus Fleet Programs
  - Manpower
    - Keeping track of staffing levels is an important job at Metro
    - Tracks man-power vacancies for all union classifications
    - Coordinates inter divisional transfers
    - Assigns new employees to work locations
    - Works to balance staff vacancies between divisions



# TRANSIT OPERATIONS AND THE CHP

## Front and Rear Suspension Heavy Maintenance Program

Front and rear suspension on high floor buses and low floor buses can show excessive wear. Radius rod bushings and front suspension spindles do wear out as well as axle housings crack near the upper radius rod bracket.

Impact of not repairing and replacing these parts: Buses are unsafe and will fail CHP inspections, also increased operating costs at divisions.

### Front Suspension



Cracked  
Axle  
Housing



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# TRANSIT OPERATIONS AND THE CHP

## Wheelchair Lift:

Wheelchair lift control bundles develop cracks in the hydraulic lines which leak fluid and start to fail. Sensitive edges and proximity switches (which communicate to the system that a wheelchair is being raised or lowered) wear and can become inoperable. Impact of not repairing: Failure to comply with ADA regulations, safety issues, out of service, poor customer service, increased operating costs and more road calls for divisions.



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# TRANSIT OPERATIONS AND THE CHP

## Engine Cleanliness and Proper Line Maintenance

Keeping a fleet's engines clean is a major effort. Ensuring that lines are not rubbing or leaking is an on-going effort for inspectors as well as proper repair. The installation of new engines is an opportunity to ensure all lines are properly clamped and fitting tight.



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# TRANSIT OPERATIONS AND THE CHP

- Los Angeles County Metropolitan Transportation Authority's Bus Fleet Programs

- Communication

- Maintenance programs do not just happen. They must be worked at. Work at communicating the program and the program will work for you.
- Complacency is a problem for all of us. We must constantly communicate where we are and where we are going. Regularly revisit each program to assess if it is working. Be willing to share with each other.
- Invest in training not only new employees but long term employees.
- Take a look at your reporting. Do the reports communicate the areas that need to be monitored? Are your people reading the reports?
- Inspection programs are good. But are the repairs being made?
- Bring more staff into the Terminal Inspection process. Let your staff see what is being looked at. Develop your staff.
- Review the final CHP Terminal Inspection report with appropriate staff. Debrief what went well and what areas need to be worked on. Communicate the results. Multiple division properties need to share results.
- Establish a QA team and have them do mock inspections.
- Work on communicating with your local CHP Motor Carrier Inspector.