

SUMMARY REPORT

**SHENANDOAH VALLEY SCHOOL DISTRICT'S
SCHOOL BUS SAFETY INSPECTIONS**

February 2002

TABLE OF CONTENTS

	<u>Page</u>
Introduction and Background	1
Summary of Findings and Recommendations	3
Findings	
<u>Finding No. 1</u> - The process used by SVSD to fill the head mechanic position was deficient: a majority of the school board voted to hire a person to fill the position who was not certified to conduct inspections at the time the board voted to hire him and who lacked experience as a bus mechanic. The deficiencies were compounded by the failure to provide adequate supervision of the head mechanic.....	4
<u>Finding No. 2</u> - There is substantial evidence that the SVSD head mechanic failed to carry out his responsibilities related to school bus safety inspections adequately or effectively.....	6
a. Evidence presented by the PSP	6
b. Comparison of SVSD bus inspection records with WEM repair bills	7
c. Discrepancies concerning dates of inspection	10
Conclusions and Recommendations	12
The School District’s Response	14
Department of the Auditor General’s Comments	15
Report Distribution List	16

INTRODUCTION AND BACKGROUND

The Department of the Auditor General (the Department) conducts audits of Pennsylvania school districts pursuant to its authority under The Fiscal Code, 72 P.S. § 403. In April 2001, the Department received a legislative request that it investigate news reports that seven out of ten school buses owned and operated by the Shenandoah Valley School District (SVSD) had failed to pass an emergency safety inspection conducted by the Pennsylvania State Police (PSP) and were ordered to be taken off the road.

During the 2000-2001 school year, SVSD operated a fleet of ten school buses and employed persons as bus drivers and mechanics. School buses are required by state law to be inspected annually for safety by the Pennsylvania State Police (PSP) and semi-annually by a state-certified inspector.¹ SVSD operated its own inspection station. The head mechanic at SVSD was responsible for conducting the semi-annual safety inspections.

After the PSP received a report of mechanical problems on SVSD buses, it conducted an inspection of nine SVSD buses on March 30, 2001. According to the PSP, seven of the nine buses failed the inspection due to mechanical problems. At the time of the PSP inspection, the buses had current stickers showing that they had been inspected by the SVSD head mechanic. After an investigation by the PSP, summary citations were filed against SVSD and its head mechanic for violations of the Pennsylvania Motor Vehicle Code. SVSD was cited for summary offenses based on violations of safety regulations in regard to seven of the buses.² The head mechanic was cited for failing to meet the requirements for issuing a safety inspection sticker in connection with the inspection of one of the buses.³ After a hearing before a district justice, the head mechanic was found guilty and fined \$25, plus costs. There was no appeal. After a separate hearing, SVSD was found guilty of the charge on one of its citations. SVSD was fined \$50, plus costs. The other citations filed against SVSD were dismissed. The verdict against SVSD was upheld on appeal to the Schuylkill County Court of Common Pleas.

After an administrative proceeding conducted by the Pennsylvania Department of Transportation (PennDOT), the SVSD head mechanic's PennDOT safety inspection certificate was suspended for 14 months, effective July 4, 2001. SVSD's inspection station was also suspended for 14 months, effective August 16, 2001. The suspensions were not appealed. In May 2001, SVSD closed its

¹ 75 P.S. § 4705(a) and 4702(a).

² 75 P.S. § 4551(b).

³ 75 P.S. § 4727(b).

inspection station and announced that its school buses would be inspected at privately operated inspection stations. The SVSD board of directors dismissed the head mechanic from employment with the school district in November 2001. A grievance was filed and arbitration of the dismissal is pending.

The Department's Office of Special Investigations (OSI) conducted an investigation of SVSD's management of the school bus safety inspections. The inquiry included interviews of SVSD school board members and staff and reviews of SVSD records and records of a private firm that serviced SVSD school buses.

The investigation's findings, conclusions and recommendations were discussed with SVSD officials on January 15, 2002. The school district's response was received on February 8, 2002, and has been included in the final report.

SUMMARY OF FINDINGS

The process used by SVSD to fill the head mechanic position was deficient: a majority of the school board voted to hire a person to fill the position who was not certified to conduct inspections at the time the board voted to hire him and who lacked experience as a bus mechanic. The deficiencies were compounded by the failure to provide adequate supervision of the head mechanic.

There is substantial evidence that the SVSD head mechanic failed to carry out his responsibilities related to school bus safety inspections adequately or effectively.

RECOMMENDATIONS

SVSD should ensure that its employees are qualified for the positions they are hired to fill. This requires improvements in its procedure for selection of applicants for those positions. Specifically, SVSD should:

1. establish appropriate minimum levels and amounts of experience as part of the qualifications;
2. ensure that the applicants' level and amount of relevant experience are verified;
3. obtain advice and input into the selection process from qualified school district employees and outside parties; and
4. establish qualified intermediate levels of supervision and reasonable probationary periods that contain provisions for close monitoring by qualified persons.

FINDINGS

Finding No. 1 – The process used by SVSD to fill the head mechanic position was deficient: a majority of the school board voted to hire a person to fill the position who was not certified to conduct inspections at the time the board voted to hire him and who lacked experience as a bus mechanic. The deficiencies were compounded by the failure to provide adequate supervision of the head mechanic.

In early 2000, SVSD advertised for a person to fill the position of head mechanic which was about to become vacant due to the expected retirement of the person who had held the position for over 15 years. The job description for the position included responsibility for conducting state inspections and necessary repairs of school buses and other school vehicles under the heading “Responsibilities and Duties.” Approximately six persons applied for the position. Question No. 1 on the interview form used by SVSD was “[A]re you a certified state inspection mechanic? If not, are you willing to be certified as one?”

Two of the applicants noted on their application forms that they were certified to conduct state inspections. Five of the six applicants listed previous experience as a mechanic. The SVSD board of school directors interviewed the applicants and, in May 2001, voted to select one of them to be hired as head mechanic. The vote was five to four.

The person selected was an SVSD school bus driver who also worked as an insurance agent. He did not have a state certification to conduct bus safety inspections at the time he was selected. His application for the head mechanic position listed no prior experience as a mechanic. He told OSI that he worked as a mechanic’s helper from 1972 to 1977 and had done mechanical and electrical work on his own vehicles. He had no previous experience doing mechanical work on buses. He told OSI that he believed he got the job of head mechanic because other applicants wanted to be paid more money than he did.

SVSD board members told OSI that the applicant who was selected made the best presentation during the interviews. According to a copy of the list of interview questions provided to OSI by a board member, during the interview the applicant provided an affirmative answer to the following questions:

- Do you know how to maintain brake systems?
- Do you have experience in maintaining exhaust systems?

- Do you have experience in maintaining steering systems, steering links, tie rod ends, etc?

There is no record that SVSD board members questioned the applicant closely on the extent or basis of his knowledge in those areas or asked detailed follow-up questions. There is no evidence that the board verified the applicant's experience or qualifications to conduct bus safety inspections and to do related maintenance work. The school board did not seek assistance, advice or input from the retiring head mechanic or the superintendent in connection with the selection of the new head mechanic.

After the selection, the person designated to become head mechanic attended training courses and passed the test for certification as a state inspector in late May 2000. He also worked for about two weeks as an "apprentice" to the retiring SVSD head mechanic. According to that individual, the only maintenance work the newly appointed future head mechanic did during the period as an "apprentice" was to change a tire.

The new head mechanic took over the position on June 1, 2000. According to the head mechanic's job description, he reported directly to the SVSD superintendent. In reality, no one supervised his work. According to the head mechanic, the superintendent visited the garage once during the time the head mechanic was working there and never discussed problems with the buses or mechanical work on the buses with the head mechanic. The superintendent told OSI that he had little or no specific knowledge of the work of the school district's bus mechanics. The previous head mechanic told OSI that he had been supervised by the SVSD head of maintenance.

Finding No. 2 – There is substantial evidence that the SVSD head mechanic failed to carry out his responsibilities related to school bus safety inspections adequately or effectively.

The head mechanic injured his back on December 22, 2000. He submitted a workers' compensation insurance claim and became eligible for weekly compensation payments on January 30, 2001. According to the head mechanic, he hurt his back while closing the SVSD bus garage door. He continued to work as head mechanic and as a school bus driver until late January when the pain got worse; he went on sick leave on January 30. Shortly afterward, the superintendent designated another SVSD employee, a school bus driver who served as an assistant mechanic under the retired former head mechanic, to serve as acting head mechanic.

On March 16, 2001, the brakes failed on SVSD bus No. 98-2. The bus was taken to West End Motors (WEM), West Hazleton, PA, a facility used by SVSD for bus repairs and parts, to be repaired. The acting head mechanic (who was also a bus driver) took his bus to WEM on March 27. There he was informed that the brakes had to be changed. The acting head mechanic then contacted the retired former head mechanic; they checked the remaining buses. After doing so, they noted defects and informed the superintendent, who told them to contact the PSP. The PSP then conducted its inspection of the buses.

Based on the following, it appears that the head mechanic failed to carry out his responsibilities:

a. Evidence presented by the PSP

The evidence presented by the PSP at the hearing before the district justice included the following:

- Seven of the nine buses failed the March 30, 2001, inspections conducted by the PSP. The failures were due to substantial mechanical problems. The PSP inspector was a qualified bus safety inspector who had inspected over 4,000 buses in the past three years.
- One of the buses, No. 95-1, passed a PSP safety inspection in June 2000. The mechanical problems found during the March 30, 2001, inspection were not observed as present at the time of the June PSP inspection.
- According to SVSD records, bus No. 95-1 was inspected by the SVSD head mechanic on February 12, 2001. According to the

odometer record, the bus had been driven about 5,000 miles since the June 2000 PSP inspection and 1,360 miles since the recorded February 12, 2001, date of the inspection by the SVSD head mechanic.

- The PSP inspector testified that the most severe mechanical problem he observed on bus No. 95-1 during the March 30, 2001, inspection was a steering column drag link and ball joint that was dangerously worn and could have resulted in disengagement of one of the front wheels from the steering mechanism. According to the PSP inspector, the problem should have been observed and corrected at the time of the February inspection.
- The PSP presented a witness who was a qualified truck mechanic for WEM. The mechanic testified that he inspected bus No. 95-1 on April 2, 2001, when it was towed to WEM. His testimony supported the PSP inspector's statements concerning the bus's mechanical problems. He also stated that the bus' brakes, calipers and seals required replacement to pass the state inspection, the muffler was rotted and had clamps missing from it and transmission fluid was leaking from the transmission dipstick tube, creating a potential fire hazard.

The defense at the SVSD head mechanic's hearing before the district justice did not dispute the evidence of the mechanical problems and defects described by the PSP inspector and the WEM mechanic. The defense's central argument was that there was no proof that the problems and defects were present at the time the SVSD mechanic inspected the bus in February 2001 and that the SVSD bus drivers had failed to report the problems prior to the inspection by the PSP.

In addition to the evidence presented in the hearing before the district justice, OSI's investigation found additional reasons to question the head mechanic's activities as safety inspector:

b. Comparison of SVSD bus inspection records with WEM repair bills

OSI conducted a comparison of the bills received by SVSD for repairs made to eight school buses after the discovery of the problems in March 2001 with the SVSD bus inspection records. The comparison is summarized below:

Bus No. 98-2

December 7, 2000- head mechanic conducted inspection, mileage - 37,028; rated the front brakes at 91 percent and the rear brakes at 50 percent.

March 16, 2001 - WEM changed the rear brakes pads and repaired the rotors and calipers; noted that the left caliper was leaking brake fluid on the axle and had chewed into the rotor because the brake pads were so thin. Mileage - 41,032 or 4,004 miles since last inspection. April 12, 2001 - WEM repaired a power steering fluid leak, an oil leak on the transmission and greased and lubricated all the bus fittings and joints; repaired exhaust pipe, elbow and clamps.

Bus No. 98-1

December 8, 2000 - head mechanic conducted inspection, mileage – 34,451; rated the front and rear brakes at 54 percent.

March 27, 2001- WEM replaced both the front and rear brake pads and calipers. The mileage was 38,842 or 4,391 miles since last inspection. WEM noted on the bill that the calipers were replaced because of excessive heat brought on by worn out brake pads. WEM also repaired and replaced exhaust system clamps, hangers and modified the system, serviced transmission and filter and changed other filters.

Bus No. 92-2

December 18, 2000 – head mechanic conducted inspection, mileage - 61,299; rated front brakes at 63 percent and rear brakes at 68 percent.

April 3, 2001 - WEM repaired rear brake pads; repaired and replaced rear hydraulic brake system, lines, and hose due to rusty and worn parts. Mileage was 63,780 or 2,481 miles since last inspection. WEM also repaired or replaced rear entry door; suspension, spring pins and bushings; exhaust system hangers, clamps, tailpipe and muffler; engine manifold gasket; tighten loose seats; replaced broken body mount; replaced number two carrier bearing to the drive line; greased and changed filters.

Bus No. 92-1

December 19, 2000 – head mechanic inspected bus No. 92-1; current mileage - 79,960; rated front brakes at 41 percent and rear brakes at 59 percent.

April 2, 2001 - WEM replaced front and rear brake pads and calipers; mileage - 82,881 or 2,921 miles since last inspection. WEM changed three filters and an element and lubricated and greased chassis; replaced both rebound springs and bushings on the front and rear springs, serviced transmission and changed filters and gaskets; repaired the exhaust system and changed the clamps and hangers. Front-end, left and right, tie rod ends were changed and the tow-in set to specifications. Front shock absorbers were replaced and the rear axle pinion seals repaired. Heater motor replaced and broken body mounts replaced.

Bus No. 91-1

December 20, 2000 – head mechanic conducted inspection, current mileage - 64,607; rated the front brakes at 50 percent and rear brakes at 59 percent.

April 6, 2001 - WEM replaced brake pads and calipers on the front and rear brakes. (The WEM mileage figures were inaccurate) WEM repaired and replaced hydraulic brake system and lines; repaired rear springs, bushings and pins on suspension; replaced and repaired tie rod ends and drag link on steering column; removed and replaced parking brake shoes and drum; repaired exhaust system and hangers; repaired hole in firewall; serviced transmission and changed filter; replaced bearings and seals in the rear axle.

Bus No. 94-2

January 4, 2001 – head mechanic conducted inspection, current mileage - 57,862; rated front and rear brakes at 41 percent.

March 28, 2001 - WEM replaced brakes, calipers, boots, hoses and pistons on the front and rear brakes; replaced right front rotor which was worn due excessive brake wear and repaired master cylinder and brake fluid pressure switch, mileage 58,407 or 545 miles since last inspection. Also replaced dipstick tube and pan, change the internal filter, and added 18.5 quarts of transmission fluid (transmission was almost entirely drained of fluid); repaired exhaust system, clamps and hangers; repaired bushings, pins and bolts in suspension system.

Bus No. 95-1

February 12, 2001 – reported date that head mechanic conducted inspection, current mileage - 48,096; rated the front brakes at 91 percent and the rear brakes at 68 percent.

April 2, 2001 - WEM repaired hydraulic brake system and installed new brake shoes and hardware; mileage - 49,363 or 1,267 since last inspection. WEM

also replaced or repaired the following additional items: worn drag link for steering column; muffler and three missing muffler clamps; upper and lower shackle pins and bushings to springs and suspension, transmission dip stick tube and transmission filter and gasket; inoperative heater motor; front shock absorbers and front wheel seals; tightened all loose seats; and secured all loose wiring under bus with wire clips.

Bus No. 00-3

February 13, 2001 – reported date that head mechanic conducted inspection, current mileage - 8,371; rated the front brakes at 95 percent and the rear brakes at 91 percent.

April 2, 2001 - WEM repaired exhaust system by removing bad muffler clamps and installing new tail pipe, hangers, and clamps; also tightened all clearance lights and replaced two bulbs on the braking light system; mileage - 10,557 or 2,186 miles since last inspection.

The records show that a substantial amount of repair work was done on each bus. Even after taking into account the additional wear and tear resulting from the miles the buses were driven between the time of the inspections by the head mechanic and the dates of the repairs, the extent of the repair work raises questions about the completeness and reliability of the inspections and maintenance performed by the head mechanic.

OSI received allegations from SVSD board members that the repair bills submitted to SVSD by WEM were inflated and that SVSD staff had sabotaged school buses. While it is probable that some of the repairs noted on the bills could have been made at the SVSD itself, there is no credible evidence that the repairs were not appropriate or that there was sabotage.

c. Discrepancies concerning dates of inspections

The inspection records for two SVSD buses (Nos. 95-1 and 00-3) list February 12, 2001, and February 13, 2001, and the dates when the respective buses were inspected by the head mechanic. When questioned by OSI, the head mechanic said that he inspected the buses on January 25 and 26, aggravated the injury to his back while doing so, and placed the inspection stickers on the buses on February 8, 2001. He told OSI that before he went on sick leave in January, he informed the superintendent that he had inspected the buses and that he would put the stickers on the buses in February.

The superintendent told OSI that he had no knowledge of the head mechanic's inspection of the two buses in January or of the head mechanic placing the stickers on the buses in February. There is nothing in SVSD's records to show that the buses were inspected in January. According to the records⁴, the inspections took place in February, while the head mechanic was on sick leave and receiving workers' compensation payments. The discrepancy in the dates of the inspections and the head mechanic's reported injury provide additional reasons to question the reliability and thoroughness of his inspection activities.

No evidence concerning discrepancies between the recorded dates of the inspections of the two buses and the actual dates was presented at the hearing on the summary charge against the head mechanic.

The head mechanic told OSI that he had performed his duties properly. He said that he maintained logbooks of repairs made to each school bus; instituted a procedure for bus drivers to conduct pre-trip inspections of buses and complete written records of those inspections; and he visited the bus garage on weekends to maintain the bus logbooks after he went on leave. The visits took place during the period when the head mechanic was on workers' compensation. The superintendent told OSI that the head mechanic's weekend visits and work on logs during that period took place without the superintendent's knowledge or approval.

OSI reviewed the logbooks. There is insufficient evidence to draw conclusions regarding the accuracy or dates of entries. Assuming that the logbook entries are accurate and timely, it does not appear that the logbooks or the pre-inspection forms were effective. According to other SVSD staff members, one bus driver questioned whether drivers had sufficient knowledge to use the pre-trip inspection forms properly and the acting head mechanic did not use the bus logbooks after he was named to fill that position in February 2001.

⁴ The record entries are made on an official Commonwealth of Pennsylvania Department of Transportation (PennDOT) Inspection Record Form.

CONCLUSIONS AND RECOMMENDATIONS

The process used by the SVSD board of directors to select the head mechanic was flawed: the board did not conduct a sufficient inquiry into the qualifications of the applicant who was selected, failed to consult with the person who held the position up to that time and/or the superintendent and selected the applicant with the least experience in the type of work related to the position.

It also appears questionable to expect that a two-week “apprenticeship” under the departing head mechanic, coupled with passing the test to become certified to conduct inspections, would make up for the applicant’s lack of experience. Given the paramount need for safety of the students, the SVSD school board failed to exercise sound overall management of the selection process.

The failure to provide effective supervision compounded the problem of having a head mechanic with marginal qualifications. The lack of supervision was particularly apparent during late December 2000 and January 2001 after the head mechanic was injured. The head mechanic’s lack of experience and his injury may help to explain how deficiencies noted during inspections were not found or corrected earlier.

Overall, the information from the PSP investigation, records and interviews supports the conclusion that the SVSD head mechanic failed to carry out his duties related to bus safety inspections.

SVSD addressed the immediate bus safety problems by requesting the March 2001 PSP inspections, closing its inspection station and dismissing the head mechanic. However, the school district still retains a bus fleet and employees who have responsibilities for bus maintenance and repairs and may, in the future, decide to have its staff conduct bus safety inspections. For those reasons, it is recommended that SVSD ensure that its employees are qualified for the positions they are hired to fill. This requires improvement in the procedure for selection of applicants for those positions. Specifically, SVSD should:

- establish appropriate minimum levels and amounts of experience as part of the qualifications;
- ensure that the applicants’ level and amount of relevant experience are verified;
- obtain advice and input into the selection process from qualified school district employees and/or outside parties; and

- establish intermediate levels of supervision and reasonable probationary periods that contain provisions for close monitoring by qualified persons.

Such procedures or comparable ones would also be useful in connection with hiring or appointment of persons to fill other skilled non-professional positions with the school district.

THE SCHOOL DISTRICT'S RESPONSE

The response was contained in a January 8, 2002, letter from the SVSD solicitor. As a preliminary matter, the letter stated that the response was approved by the Board of School Directors on February 6, 2002. The response also noted that four of the current school board members were not on the board at the time the head mechanic was hired.

In regard to the report's findings and recommendations, the response stated:

In response to the first finding, the Board of School Directors conducted extensive interviews with six (6) applicants for the position. A series of suggested questions and areas of discussion were circulated to each director prior to the interviews. The demeanor and attitude, as well as the appropriate responses to questions were considered by the directors in making their selection. An interview process is not an exact science and choosing a candidate for any position of employment is a difficult decision to make for any individual. The individual chosen for the position exhibited qualities and possessed experience that the majority of School Directors felt qualified him for the position over the other candidates. The chosen candidate's subsequent certification to conduct inspections would seem to indicate the board's reliance on the candidate's prior qualifications and experience was justified. The candidate successfully obtained his State Certificate to conduct school bus inspections. The candidate chosen also had significant experience as a mechanic and he was specifically questioned as to how that experience would benefit him and be useful to him if chosen for the position. His explanation at the interview was satisfactory to the board to the extent that it felt justified in hiring him. Additionally, the candidate chosen was employed by the District as a bus driver prior to his selection and he was a bus driver in a neighboring school district for a significant number of years. With regard to the alleged deficiencies being compounded by lack of supervision, neither the School Board nor the administration possessed qualifications necessary to supervise a head mechanic of its bus fleet, however, the Auditor General's recommendations are well taken and will be implemented upon the hiring of a new head mechanic.

The second finding of the Auditor General is that there is substantial evidence that the head mechanic failed to adequately or effectively carry out his responsibilities related to school bus safety inspections. With regard to this finding, the School District cannot take issue. The head mechanic was charged criminally as a result of his actions, he was convicted of a summary offense for his actions and terminated from his position at the School District as a result of his actions. Again, the School District is cognizant of the Auditor General's

recommendations and intends to implement those recommendations upon the hiring of a new head mechanic.

The Shenandoah Valley School District hereby agrees to the following standards to be implemented for selection of its head mechanic:

- 1) establishment of appropriate minimum levels and amounts of experience as part of the qualifications;
- 2) verification by the superintendent of the applicants' level and amount of relevant experience;
- 3) obtaining advice and input into the selection process from qualified school district employees and/or outside parties; and
- 4) establishment of qualified intermediate levels of supervision and reasonable probationary periods that contain provisions for close monitoring by qualified persons.

Very truly yours,

By: Michael A. O'Pake, Esquire

DEPARTMENT OF THE AUDITOR GENERAL'S COMMENTS

As noted in the report, SVSD addressed the bus safety problem in March and April 2001. In regard to the response to Finding No. 1, based on information obtained from the school district's records concerning the selection process and the applicant's statements to OSI, it appears that the applicant selected for the head mechanic position did not have adequate experience as a bus mechanic to provide a reasonable basis for his selection and his overall experience as a mechanic was extremely limited.

The school district's agreement to implement the recommendations is encouraging and should help to avoid similar problems in the future.

REPORT DISTRIBUTION LIST

Copies of this report have been initially distributed to the members of the SVSD school board, the superintendent and the solicitor for SVSD, and to the following:

Department of Education
The Honorable Charles B. Zogby, Esquire
Secretary of Education
Harristown 2, 10th floor
333 Market Street
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Governor's Office of the Budget
William A. Hardenstine, Jr., Comptroller
Labor, Education and Community Services
1012 Labor & Industry Building
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Pennsylvania State Police
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