Moravia Central School District

Fuel Inventory

DECEMBER 2019
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Report Highlights

Moravia Central School District

Audit Objective
Determine whether District officials adequately safeguarded and accounted for fuel purchases.

Key Findings
- The District’s fueling area and tanks lacked adequate physical controls to safeguard fuel inventory.
- The Transportation Supervisor did not perform fuel reconciliations, and our reconciliations resulted in unaccounted-for fuel totaling $8,034.
- Officials did not perform stick-measured readings to ensure fuel deliveries were accurate.

Key Recommendations
- Install appropriate physical controls to safeguard the District’s fuel inventory.
- Perform periodic reconciliations to ensure fuel use is appropriate for District purposes.
- Perform stick-measured readings to ensure fuel deliveries are accurate.

District officials generally agreed with our recommendations and indicated they plan to initiate corrective action.

Background
The Moravia Central School District serves the Towns of Moravia, Locke, Niles, Sempronius, Summerhill, and Venice in Cayuga County, the Town of Scott in Cortland County, and the Town of Skaneateles in Onondaga County.

The District is governed by the Board of Education (Board), comprised of seven elected members, which is responsible for the general management and control of the District’s financial affairs. The Superintendent of Schools (Superintendent) is the District’s chief executive officer, responsible for day-to-day management and for budget development and administration.

The Town of Moravia, Village of Moravia, Moravia Volunteer Fire Company Inc., and the Locke Volunteer Fire Department Inc. fuel their vehicles and equipment at the District’s bus garage. The Business Office periodically bills these entities for their use.

Quick Facts

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<th>2018-19 Fuel Expenditures</th>
<th>$162,968</th>
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<td>Gallons of Gasoline Purchased</td>
<td>11,796</td>
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<td>Gallons of Diesel Purchased</td>
<td>49,014</td>
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Audit Period
July 1, 2018 – August 27, 2019
Fuel Inventory

The District has two above-ground fuel tanks, a 5,000 gallon diesel tank and a 1,000 gallon unleaded gasoline tank located at the District’s bus garage. The transportation department made 23 regular daily bus runs, traveling 306,000 miles, during the 2018-19 school year with a fleet of 24 buses and four vans. The facilities department maintains the grounds around the District’s buildings using three trucks, four riding lawn mowers, a generator and various small gasoline-operated pieces of equipment. One of the facility’s trucks is equipped with two 50-gallon tanks, one for diesel fuel and the other for gasoline, that are used to fuel the smaller pieces of equipment and the generator.

The Transportation Supervisor (Supervisor) is responsible for ordering, receiving and monitoring fuel inventories. The bus dispatcher reads the gauge on the fuel tanks each week and records the fuel levels. Gasoline is automatically delivered on a bi-weekly schedule and the Supervisor orders diesel when the tank’s gauge reads 1.5 feet.

Historically, a master key was issued to the maintenance and transportation departments and each entity to turn on the fuel pumps. All users were required to record the amount and type of fuel dispensed on a paper ticket and submit the completed ticket to the Supervisor. The Supervisor manually entered the ticket data into computerized software used to track fuel consumption for each entity and maintenance for the transportation department.

On March 15, 2019, the District implemented a new electronic fuel system (system) at the pumps that requires users to insert a key fob (one fob is assigned to each vehicle or piece of equipment), personal identification number (PIN), and vehicle mileage prior to dispensing fuel. The computerized software automatically records the number of gallons and type of fuel pumped, user and vehicle or piece of equipment fueled.

How Should District Officials Safeguard and Account For Fuel Inventories?

District officials are responsible for safeguarding and accounting for fuel inventories to make sure they are safe from loss, waste and misuse. The Board should ensure that policies and procedures are in place that assign individual responsibilities to ensure that fuel is used for its intended purpose and is properly accounted for.

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1 The fuel gauge displays the number of feet in the tank.
District officials should ensure that fuel inventory records showing the amount of fuel on hand (or fuel tank level readings) are periodically reconciled to delivery and usage records. In addition, vehicle usage reports should be periodically reviewed for reasonableness. Any material discrepancies disclosed in the reconciliation process and records review should be investigated and resolved.

Further, District officials should maintain an inventory of fuel keys used to access fuel inventories and disable any keys not accounted for. Finally, the fuel tanks should be adequately secured and stick-measured on a regular basis, as well as immediately prior to and after fuel deliveries, to verify the delivery amount.

**Fuel Was Not Adequately Safeguarded or Accounted For**

The Board did not establish policies to provide reasonable assurance that fuel was used for its intended purpose and properly accounted for. In addition, District officials did not design procedures to ensure fuel use and inventory records were properly maintained and reconciled. As a result, the responsibility for managing transportation fuel inventories was not clearly assigned, and District officials did not maintain complete and accurate inventory records to safeguard and account for fuel inventories.

District officials also did not ensure that the fuel tanks were properly secured or in working order. The cameras around the District’s bus garage did not provide coverage of the fuel tanks, and access to the fuel inventory could be obtained without the master key, a key fob or PIN. In addition, the tanks’ measurement gauges did not match the stick measurements we took because the gauges were not calibrated.

The Supervisor did not take stick-measured readings to confirm fuel delivery amounts, prepare periodic reconciliations between the amounts that should be on hand and the amounts actually in the tanks or review fuel usage reports for reasonableness. Instead, she had the dispatcher take gauge readings during the week. The lack of safeguards such as periodic reconciliations and reviews and physical controls have prevented District officials from knowing the gauges were not accurate and accurately accounting for fuel inventories. This increases the risk that thefts and leaks could go undetected. Because of the lack of safeguards, we prepared a reconciliation to determine whether the District’s fuel inventory was accounted for.

We did a stick reading on July 3, 2019 and compared the fuel tank gauge reading to the stick reading. We found the gasoline tank gauge read 10.25 inches less, but the diesel gauge was accurate. Because the July 3, 2018 gasoline gauge reading may also be inaccurate, we adjusted it by the discrepancy between the gauge reading and the stick reading on July 3, 2019. For the period July 3, 2018 to July 3, 2019, we were unable to account for 642 gallons of gasoline and 2,374 gallons of diesel totaling approximately $8,034.²

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² Calculated using an average fuel price during the period of $1.9796 for gasoline and $2.8484 for diesel.
We prepared a second reconciliation for the period March 18, 2019 to July 3, 2019 to determine whether the installation of the automated system reduced or eliminated the amount of unaccounted-for fuel. Implementation of the new system should have eliminated any inaccuracies related to the preparation of the manual tickets and recording of the tickets in the computerized software, as well as the possibility of lost tickets and not completing tickets for fuel use. We still found there were 142 gallons of gasoline and 388 gallons of diesel unaccounted-for during this period, valued at $1,355.\(^3\)

After we identified the inaccurate gas tank gauge reading, District officials calibrated the gauges. We conducted another stick test of the fuel tanks on August 9, 2019 using stick readings for beginning and ending inventory. We found that, while unaccounted-for fuel improved, 27 gallons of gasoline and 33 gallons of diesel fuel were unaccounted-for during the five-week period, July 3, 2019 to August 9, 2019, valued at $139\(^4\) (Figure 1).

![Figure 1: Unaccounted-for Fuel as a Percentage of Fuel Purchased During Test Period](image)

3 Calculated using an average fuel price during the period of $2.0323 for gasoline and $2.7484 for diesel.

4 Calculated using an average fuel price during the period of $2.4092 for unleaded and $2.2276 for diesel.
While we found no indication of fraud, the lack of safeguards, such as periodic reconciliations and reviews and physical controls, have prevented District officials from accurately accounting for fuel inventories and increase the risk that thefts and leaks could go undetected.

How Should the District Accurately Bill Other Municipalities’ Fuel Usage?

New York State General Municipal Law (GML) requires that, when local governments agree to share services, each governing body should enter into a written agreement that defines the rights and responsibilities of each party and includes an equitable allocation of costs and appropriate procedures to help ensure the long-term success of shared services.

Agreements should include information such as who is authorized to fuel, how fuel prices will be determined and billing will be processed, and how any additional cost of providing fuel will be shared.

Additionally, district officials should implement procedures to ensure invoices for other municipal fuel usage are accurate, timely and include the necessary information for the municipalities to reconcile and pay their bill.

District Officials Did Not Enter Into Agreements with Municipalities or Timely and Accurately Bill Fuel Usage

While the Board did not enter into written shared service agreements with the Town of Moravia, Village of Moravia or two fire districts that receive fire protection services from the Moravia and Locke Fire Departments, District officials had informal arrangements allowing these entities to use District fuel. The District had procedures in place to bill the entities periodically for the cost of fuel used. However, these procedures were inadequate to ensure that all fuel used by these entities was correctly billed. In addition, District officials billed outside fuel customers based on contractually bid fuel prices, but did not include any upcharges or additional fees for the costs incurred by the District for maintaining and operating the fuel tanks, as well as generating the fuel invoices.

5  New York State General Municipal Law (GML) Section 119-o
To bill entities for their fuel usage, the Supervisor recorded contractual fuel prices in the fuel tracking software and generated a monthly usage report for each entity. The Supervisor provided the District Treasurer with the usage report, who generated an invoice using the computerized financial software. Although the usage report detailed each dispensed fuel transaction by date, type, pump number, amount pumped and price, the Treasurer combined multiple fuel transactions with the same price per gallon, as listed on the usage reports, into one transaction on the invoice, even if the transaction dates were different. For example, an entity that dispensed 10 gallons of fuel on the first at a cost of $2.00, 15 gallons on the 12th at a cost of $1.90, 30 gallons on the 20th and 20 gallons on the 30th each at a cost $2.00, would receive a bill that consolidated the 60 gallons at $2.00. Combining usage amounts of like dollar costs made it difficult to ensure entities were billed for all usage and for the entities to determine whether they were properly billed.

During our audit period, the District Treasurer generated 53 invoices totaling $46,068. We used our professional judgment to select eight (15 percent) different invoices totaling $8,362 for review and found that the Supervisor did not always accurately record the contractual fuel prices and usage in the fuel tracking software. We also found that the invoices generated by the Treasurer did not accurately list fuel usage according to the fuel usage reports. For example, there were transactions listed on the usage reports that were not found on the invoices and vice versa. Although the amounts in our test were not significant, consolidating amounts prohibits reconciliation. Additionally, the Treasurer did not bill entities in a timely manner. For example, the invoices for August 2018 fuel usage were mailed on January 14, 2019, five months after the transactions occurred.

Without formal written agreements and proper billing procedures, District officials cannot ensure the District will recover all of the costs incurred by allowing outside entities to fuel at the District’s fuel tanks. Furthermore, inaccurate and untimely invoices that lack adequate information puts the District at greater risk for not accurately recovering its fuel costs.

**What Do We Recommend?**

The Board should:

1. Ensure written policies and procedures that include assigning individual responsibilities are in place to manage fuel inventories.

2. Establish formal written agreements with municipalities for the purchase of fuel from the District.
District officials should:

3. Ensure the fuel tanks are adequately secured and protected from unauthorized access.

4. Ensure all gauges are calibrated and working correctly.

5. Ensure accurate fuel inventory, delivery and usage records are maintained and reviewed for reasonableness.

6. Ensure periodic stick readings are performed and confirmed to delivery receipts and used in the preparation, documentation and review of fuel inventory reconciliations.

7. Investigate any material discrepancies of fuel inventories.

8. Establish procedures to ensure fuel billing is accurate and timely and invoices contain adequate information.
November 6, 2019

Edward V. Grant, Jr., Chief Examiner
The Powers Building
16 West Main Street – Suite 522
Rochester, New York 14614-1608

Dear Mr. Grant:

On behalf of the Moravia Central School District I hereby acknowledge receipt of the Moravia Central School District Fuel Inventory Report of Examination 2019M-183 for the period of July 1, 2018 – August 27, 2019. Moravia Central School District would like to thank the OSC Staff for their efforts and professionalism in reviewing our procedures. We are in agreement with their findings and recommendations for improvement. This letter will serve as our official response.

The Moravia Central School District has implemented some of the recommendations made by the auditors in the report. These implementations include:

1. Placing new locks on fuel tanks for security
2. Utilizing new fuel inventory software to ensure inventory, delivery, and usage records are correct and to also provide accurate and timely invoices to municipalities purchasing fuel.
3. The District plans to install security cameras directed at the fuel pumps for additional security measures.
4. The District will also be adopting more stringent procedures, initiating better controls, and begin working with counsel to help establish written agreements with municipalities who purchase fuel from the District.

The findings identified in your audit process will continue to be reviewed and a more comprehensive corrective action plan will be developed to address the recommendations put forth by your office.

If you need additional information, please feel free to contact my office.

Sincerely,

John Birmingham
Superintendent
Appendix B: Audit Methodology and Standards

We conducted this audit pursuant to Article V, Section 1 of the State Constitution and the State Comptroller’s authority as set forth in Article 3 of the New York State General Municipal Law (GML). To achieve the audit objective and obtain valid audit evidence, our audit procedures included the following:

- We interviewed District officials and employees and reviewed policies and procedures related to fuel inventory and operations to gain an understanding of the District’s fuel management process.

- We observed the District’s transportation facility including the above-ground fuel storage tanks and associated security, the fuel pumps and their operation, the transportation yard and garage. We observed how fuel users obtained fuel from the tanks.

- We performed reconciliations using fuel usage reports, fuel invoices, gauge readings and stick-measured readings to determine whether fuel was properly safeguarded. To determine beginning and ending (actual) inventory, we converted gauge readings and stick-measured readings from inches to gallons using a fuel tank conversion chart. Unleaded gauge readings were adjusted to compensate for the fuel gauge being incorrectly calibrated. We added gallons of fuel purchased per the fuel invoices to our beginning inventory and subtracted fuel used per the usage reports to determine expected fuel amounts. We compared expected fuel amounts to actual fuel amounts and calculated any differences.

- We reviewed eight fuel invoices sent to all four outside customers for the months of August 2018 and March 2019 to determine whether billing was accurate and timely.

- We reviewed the District’s Board minutes and policy archive to determine whether the Board established adequate policies and procedures for fuel billing.

- We asked District officials to provide us with formal written agreements or contracts between the District and outside fuel customers.

We conducted this performance audit in accordance with GAGAS (generally accepted government auditing standards). Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Unless otherwise indicated in this report, samples for testing were selected based on professional judgment, as it was not the intent to project the results onto the entire population. Where applicable, information is presented concerning the value and/or size of the relevant population and the sample selected for examination.
A written corrective action plan (CAP) that addresses the findings and recommendations in this report must be prepared and provided to our office within 90 days, pursuant to Section 35 of GML Section 2116-1(3)(c) of New York State Education Law and Section 170.12 of the Regulations of the Commissioner of Education. To the extent practicable, implementation of the CAP must begin by the end of the next fiscal year. For more information on preparing and filing your CAP, please refer to our brochure, *Responding to an OSC Audit Report*, which you received with the draft audit report. We encourage the Board to make the CAP available for public review in the Clerk’s office.
Appendix C: Resources and Services

Regional Office Directory
www.osc.state.ny.us/localgov/regional_directory.pdf

Cost-Saving Ideas – Resources, advice and assistance on cost-saving ideas
www.osc.state.ny.us/localgov/costsavings/index.htm

Fiscal Stress Monitoring – Resources for local government officials experiencing fiscal problems
www.osc.state.ny.us/localgov/fiscalmonitoring/index.htm

Local Government Management Guides – Series of publications that include technical information and suggested practices for local government management
www.osc.state.ny.us/localgov/pubs/listacctg.htm#lgmg

Planning and Budgeting Guides – Resources for developing multiyear financial, capital, strategic and other plans
www.osc.state.ny.us/localgov/planbudget/index.htm

Protecting Sensitive Data and Other Local Government Assets – A non-technical cybersecurity guide for local government leaders

Required Reporting – Information and resources for reports and forms that are filed with the Office of the State Comptroller
www.osc.state.ny.us/localgov/finreporting/index.htm

Research Reports/Publications – Reports on major policy issues facing local governments and State policy-makers
www.osc.state.ny.us/localgov/researchpubs/index.htm

Training – Resources for local government officials on in-person and online training opportunities on a wide range of topics
www.osc.state.ny.us/localgov/academy/index.htm