



Commonwealth of Massachusetts  
Office of the State Auditor  
Suzanne M. Bump

*Making government work better*

Official Audit Report – Issued January 31, 2019

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## Division of Standards

For the period July 1, 2016 through June 30, 2018





Commonwealth of Massachusetts  
Office of the State Auditor  
Suzanne M. Bump

*Making government work better*

January 31, 2019

Mr. James P. Cassidy Jr., Director  
Division of Standards  
1 Ashburton Place, Room 1115  
Boston, MA 02108

Dear Mr. Cassidy:

I am pleased to provide this performance audit of the Division of Standards. This report details the audit objectives, scope, methodology, findings, and recommendations for the audit period, July 1, 2016 through June 30, 2018. My audit staff discussed the contents of this report with management of the agency, whose comments are reflected in this report.

I would also like to express my appreciation to the Division of Standards for the cooperation and assistance provided to my staff during the audit.

Sincerely,

A handwritten signature in blue ink, appearing to read "SMBump".

Suzanne M. Bump  
Auditor of the Commonwealth

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## LIST OF ABBREVIATIONS

CMR	Code of Massachusetts Regulations
COSO	Committee of Sponsoring Organizations of the Treadway Commission
CTR	Comptroller of the Commonwealth
DOS	Division of Standards
ERM	enterprise risk management
ICP	internal control plan

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## EXECUTIVE SUMMARY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of the Division of Standards (DOS) for the period July 1, 2016 through June 30, 2018.

In this performance audit, we examined DOS's administration of its program for inspection of weighing and measuring devices for towns with 5,000 or fewer inhabitants. Below is a summary of our findings and recommendations, with links to each page listed.

<b>Finding 1</b> <b>Page <a href="#">7</a></b>	DOS does not inspect every weighing and measuring device annually in towns with 5,000 or fewer inhabitants.
<b>Recommendations</b> <b>Page <a href="#">8</a></b>	<ol style="list-style-type: none"><li>1. DOS should establish policies and procedures regarding the annual inspection of weighing and measuring devices in communities with 5,000 or fewer inhabitants.</li><li>2. DOS should establish a mechanism, such as an electronic database, that will enable it to effectively monitor compliance with these requirements.</li></ol>
<b>Finding 2</b> <b>Page <a href="#">9</a></b>	There were deficiencies in DOS's internal control plan (ICP).
<b>Recommendations</b> <b>Page <a href="#">10</a></b>	<ol style="list-style-type: none"><li>1. DOS should take the measures necessary to ensure that its ICP complies with the Comptroller of the Commonwealth's Internal Control Guide.</li><li>2. DOS should establish policies and procedures for the annual review of its ICP as well as monitoring controls to ensure that these policies and procedures are adhered to.</li></ol>

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## OVERVIEW OF AUDITED ENTITY

Chapter 350 of the Acts of 1919 established the Office of the Commissioner of Weights and Measures as a division of the Department of Labor and Industries. Subsequently, Chapter 704 of the Acts of 1969 formally established the Division of Standards (DOS) in its current form and placed it under the administration of the Executive Office of Consumer Affairs (now known as the Office of Consumer Affairs and Business Regulation).

DOS is responsible for enforcing standards for weighing and measuring devices used in the sale of items such as food and fuel. It also regulates the sale of gasoline and sets standards for lubricating oils, antifreeze, and other items and practices; tests and approves coin-operated devices; licenses auctioneers, transient vendors, promoters, and sellers; registers car-repair shops; inspects price scanners in retail stores and tests them for accuracy; offers training for town and city inspectors; enforces item-pricing laws and regulations; and oversees grants for enforcing legislatively enacted price and scanner requirements. To fulfill its responsibilities, DOS has promulgated regulations under Title 202 of the Code of Massachusetts Regulations (CMR).

As of June 30, 2018, DOS had 17 employees: 10 inspectors certified in accordance with 202 CMR 6, as well as 7 managerial and clerical employees. DOS had a fiscal year 2018 budget of \$1,582,101, consisting of \$870,674 from retained revenue,<sup>1</sup> a general appropriation of \$551,055, and a \$160,372 appropriation for item-pricing inspections.<sup>2</sup> DOS maintains a laboratory in Needham to certify all state and local weights and measures that meet the standards set forth by the federal National Institute of Standards and Technology. In addition, the laboratory provides calibration services for various industries, including the aerospace industry.

### Inspection of Weighing and Measuring Devices

Chapter 98 of the Massachusetts General Laws regulates the use of weighing and measuring devices in commerce in the Commonwealth and requires the annual inspection of such devices to ensure that they weigh and measure goods accurately. The inspections can be conducted at any time during the calendar

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1. Retained revenue is a type of budget line item where an agency is authorized to spend a designated portion of its revenue for a specific program or purpose.
  2. Section 56D of Chapter 98 of the Massachusetts General Laws requires DOS to examine all retail establishments with three or more cash registers to verify that the establishments are charging the advertised price for goods at checkout. This examination must be performed once every two years.

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year. Under Section 34 of Chapter 98 of the General Laws, towns and cities with more than 20,000 inhabitants must appoint inspectors to annually inspect all weighing and measuring devices therein. Under Section 35 of Chapter 98 of the General Laws, cities and towns with populations between 5,000 and 20,000 have the options of appointing their own inspectors, hiring and sharing inspectors to perform the inspections in multiple municipalities, or contracting with DOS to have the agency perform the inspections.

Section 33A of Chapter 98 of the General Laws states that the deputy director of DOS and their deputies must perform the inspections for towns with 5,000 or fewer inhabitants as of the most recent federal census, rather than requiring those towns to appoint inspectors to perform them (see [Appendix](#)).

### **Certification of Inspectors of Weights and Measures**

Section 29 of Chapter 98 of the General Laws establishes a DOS advisory committee whose members comprise the director of DOS or their designee, as well as designees from the Massachusetts Weights and Measures Association, the Eastern Massachusetts Weights and Measures Association, the Western Massachusetts Weights and Measures Association, and the City of Boston's Department of Inspectional Services. This committee is required to develop and amend certification and continuing education requirements for inspectors working throughout the Commonwealth at the local and state levels.

The standards for certification are codified in 202 CMR 6. According to 202 CMR 6.02, people applying to be certified inspectors of weights and measures must be at least 18 years old, must possess a high school diploma or equivalent, must pass the certification exam (which covers various aspects of the requirements for weights and measures outlined throughout the General Laws), and must be "of good moral character." Furthermore, certified inspectors of weights and measures must comply with continuing education requirements to maintain their certifications. DOS is responsible for administering the exam and certifying inspectors of weights and measures.

### **Standards Used to Inspect Weighing and Measuring Devices**

Section 29 of Chapter 98 of the General Laws states that all testing of weighing and measuring devices must follow guidelines from the National Institute of Standards and Technology's *NIST Handbook 44—Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*.

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## AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of certain activities of the Division of Standards (DOS) for the period July 1, 2016 through June 30, 2018.

We conducted this performance audit in accordance with 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Below is our audit objective, the conclusion we reached regarding our objective, and where the objective is discussed in the audit findings.

Objective	Conclusion
1. Does DOS properly administer its commercial weights and measures program for towns with 5,000 or fewer inhabitants?	No; see Findings <u>1</u> and <u>2</u>

To achieve our audit objective, we gained an understanding of DOS's internal control environment in relation to our audit objective by asking management about any internal control policies and procedures that DOS had in place during the audit period and by reviewing the most recent internal control plan. In addition, we performed the following procedures.

- We requested a list of complaints submitted to DOS during the audit period. We determined whether DOS had resolved all 19 complaints that originated from towns with 5,000 or fewer inhabitants by determining whether complaint reports had been completed and filed, whether the electronic complaint log accurately reflected the information from the corresponding complaint reports, whether there were inspection reports for complaints that were reported as resolved, and how many days elapsed from the date a complaint was filed to the date it was reported as resolved.
- We reviewed DOS records to confirm that all 11 DOS inspectors who worked during the audit period were certified inspectors of weights and measures as required by Section 6 of Title 202 of the Code of Massachusetts Regulations (CMR).

- We reviewed DOS records to confirm that during the audit period, all 11 DOS inspectors completed the continuing education necessary to maintain their certifications as inspectors of weights and measures as required by 202 CMR 6.
- We counted the numbers of inspected weighing and measuring devices listed on the inspection reports on file at DOS for towns with 5,000 or fewer inhabitants for 2016 and 2017. There were 1,170 inspected devices listed on the reports for 2016 and 1,383 on the reports for 2017. We also counted the number of inspected devices listed on the inspection reports for the period January 1, 2018 through June 30, 2018, which totaled 560. From this information, we determined that 42 of the 106 towns in Massachusetts with 5,000 or fewer inhabitants did not have inspection reports on file at DOS.
- We selected a sample of 120 weighing and measuring devices (e.g., gasoline pumps, deli scales, propane scales) from the 3,113 devices inspected during the audit period in the 64 towns that had inspection reports on file. The overall sample was judgmental. We selected 30 devices inspected in 2016, 60 devices inspected in 2017, and 30 devices inspected in 2018 and traveled to the businesses where the devices were located to determine whether they were still in service and had inspection stickers indicating when they were last inspected. We also checked whether the devices had been inspected during the previous calendar year. We were unable to examine 15 of the devices from our sample because they were not present.
- Of the 42 towns that had no inspection reports on file, we selected the 10 most populous to determine whether there were any businesses there using scales or other weighing and measuring devices. Using Google Maps, we identified 16 businesses that could be using scales or other weighing and measuring devices in these 10 towns. We called 6 of the businesses and visited the other 10.
- We randomly visited 21 businesses in towns with 5,000 or fewer inhabitants to determine whether they had any weighing and measuring devices that required inspection. If there was a weighing and measuring device on site, we determined whether it had an inspection sticker and whether the inspection had been performed during the previous calendar year.

Where sampling was used, we used nonstatistical sampling and therefore could not project the results of our testing to the overall populations.

To determine the reliability of the weighing and measuring device inspection information we received from DOS, we first compared the list of Massachusetts towns with 5,000 or fewer inhabitants that DOS gave us to a list of Massachusetts towns with 5,000 or fewer inhabitants that the United States Census Bureau published, based on a 2010 census, and assessed the accuracy of DOS's list. We then compared the information on DOS's list to its inspection files to determine whether there was inspection information for each of the listed communities.

To determine the reliability of the information about complaints submitted to DOS, we traced all the complaints that DOS's staff had recorded on a spreadsheet during our audit period to the physical files of complaints DOS maintained. We did this to ensure that all complaints recorded as received had corresponding physical files. We also checked the DOS complaint spreadsheet for missing or possibly invalid values.

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## DETAILED AUDIT FINDINGS WITH AUDITEE'S RESPONSE

### 1. The Division of Standards does not inspect every weighing and measuring device annually in towns with 5,000 or fewer inhabitants.

The Division of Standards (DOS) does not inspect every weighing and measuring device annually in towns with 5,000 or fewer inhabitants. Specifically, we noted the following problems:

- DOS did not have any inspection reports on file for 42 of the 106 towns in Massachusetts that had 5,000 or fewer inhabitants. From the 42 towns, we selected the 10 most populous and used Google Maps to identify businesses that might be using weighing and measuring devices that would be subject to annual inspection by DOS. We selected 16 businesses and visited 10 of them. Four of them were using weighing and measuring devices that did not have current inspection stickers. At the other 6 businesses, although there were inspection stickers<sup>3</sup> on weighing and measuring devices indicating that they had been inspected, DOS had no record of those inspections on file.
- We selected 120 weighing and measuring devices listed on DOS inspection reports and examined the devices at the businesses and schools where they were located. Three of the devices did not have current inspection stickers.
- We visited a random sample of 21 businesses for which DOS had inspection reports on file and found that 2 businesses were using scales that had not been tested since 2014.

If weighing and measuring devices are not inspected regularly, consumers could pay for amounts of products they are not receiving, or businesses may not be receiving all the revenue due them from sales, as a result of uninspected weighing and measuring devices that are not calibrated properly.

Furthermore, we discovered through our testing, interviews with DOS inspectors, and observations of the inspection process that DOS did not maintain a centralized list of weighing and measuring devices to ensure that they were all inspected during the calendar year.

### Authoritative Guidance

Section 33A of Chapter 98 of the Massachusetts General Laws states that DOS must annually test all weighing and measuring devices in towns with 5,000 or fewer inhabitants according to the most recent federal census.

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3. DOS places a paper seal on inspected weighing and measuring devices. These seals give information on when the device was last inspected and who inspected it.

## Reasons for Noncompliance

DOS's director<sup>4</sup> stated that he did not have enough staff members to fulfill the inspection requirements and pointed out that the number of DOS inspectors had decreased from 13 in 2016 to 10 as of the end of the audit period because 3 employees had retired. He added that the area most affected by the retirements was western Massachusetts, where most of the state's towns with 5,000 or fewer inhabitants are located.

We also determined that DOS did not have adequate internal controls over this activity; lacked policies and procedures for the annual inspection of weighing and measuring devices; and lacked a mechanism to effectively monitor this activity, such as an electronic record / database of inspections that could be easily reviewed and used to administer the inspection process properly.

## Recommendations

1. DOS should establish policies and procedures regarding the annual inspection of weighing and measuring devices in communities with 5,000 or fewer inhabitants.
2. DOS should establish a mechanism, such as an electronic database, that will enable it to effectively monitor compliance with these requirements.

## Auditee's Response

In response to this issue, DOS's director stated that he believed that many of the 42 towns where it had no inspection reports on file did not have any commercial devices that needed to be inspected. DOS also stated that in several of these towns, school scales were tested, but that they do not have to be tested every year because they are not commercial devices.

## Auditor's Reply

Our report does not assert that all of the 42 towns with no inspection reports had commercial devices that should have been inspected. Rather, as noted above, we selected a sample of businesses to visit from this population of 42 towns, visiting 10 businesses in 10 of these towns to determine whether they were using any devices that were subject to DOS inspection and, if so, what their inspection status was. During our visits, we found that 4 businesses were using weighing and measuring devices that did not have current inspection stickers. At the other 6 businesses, although there were inspection stickers on

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4. All references to DOS's director in this report refer to Mr. Charles Carroll, who was DOS's executive director during our audit period.

weighing and measuring devices indicating that they had been inspected, DOS had no record of the inspections, indicating a deficiency in DOS's recordkeeping. Further, we noted other problems with DOS's inspections. From a sample of 120 weighing and measuring devices listed on DOS inspection reports, 3 devices did not have current inspection stickers. In addition, DOS did not have a centralized list of weighing and measuring devices to ensure that they were all inspected during the calendar year. Even if, as DOS states, some of the items that we tested in our sample did not have to be inspected, we believe there are still issues with the process DOS uses to inspect weighing and measuring devices in towns with 5,000 or fewer inhabitants. Therefore, we again urge DOS to implement our recommendations on this matter.

## **2. There were deficiencies in DOS's internal control plan.**

DOS's internal control plan (ICP), an agency-wide document that summarizes risks and controls for all of its business processes, is not updated annually; it was last updated in August 2015. In addition, the ICP does not consider, or adequately address, two critical components of enterprise risk management (ERM) as required by the Comptroller of the Commonwealth (CTR): risk assessment and monitoring. The ICP did not identify specific risks associated with DOS's program for inspecting weighing and measuring devices in towns with 5,000 or fewer inhabitants, which it must do in order to develop effective internal control procedures, and did not include ways to monitor and evaluate the effectiveness of controls. Without an adequately documented system of internal controls, DOS risks not meeting all of its operational objectives economically and efficiently or complying with state laws, regulations, other authoritative guidance, or grants and other contractual agreements.

### **Authoritative Guidance**

Under Chapter 647 of the Acts of the 1989, every executive agency must review its ICP annually and update it as necessary and ensure that it conforms to CTR guidelines.

The CTR Internal Control Guide issued in June 2015 states,

*Departments are obligated to revise their ICPs whenever significant changes occur in objectives, risks, management structure, program scope, etc. At the very least, the ICP must be reviewed and updated annually. . . .*

*Each department's internal control plan will be unique; however, it must be based on the ERM framework.*

In its 2017 document *Enterprise Risk Management—Integrating with Strategy and Performance*, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines ERM as follows:

*The culture, capabilities, and practices that organizations integrate with strategy-setting and apply when they carry out that strategy, with a purpose of managing risk in creating, preserving, and realizing value.*

To comply with CTR's Internal Control Guide, an ICP must contain information on the five components of ERM: governance and culture; strategy and objective-setting; performance; review and revision; and information, communication, and reporting. COSO guidance states that all components of an internal control system must be present, functioning properly, and operating together in an integrated manner to be effective.

In addition, CTR's Internal Control Guide requires that ICPs incorporate a risk assessment that includes the likelihood and potential impact of risks.

## **Reasons for Noncompliance**

DOS's director indicated that he is aware of and assesses the risks associated with DOS's activities but does not document them in the agency's ICP. The director could not give us any documentation to substantiate that he had conducted a risk assessment. DOS does not have any policies and procedures related to the annual review of its ICP that would establish, among other things, how the process is to be conducted and documented, what are the timelines for completing the process, and which agency staff members are responsible for conducting the review.

## **Recommendations**

1. DOS should take the measures necessary to ensure that its ICP complies with CTR's Internal Control Guide.
2. DOS should establish policies and procedures for the annual review of its ICP as well as monitoring controls to ensure that these policies and procedures are adhered to.

## **Auditee's Response**

*A copy of the ICP was last updated on December 12, 2017 and a copy was provided to the auditors. In addition the division has complied with the comptroller's requirement of filing the [Internal Control Questionnaire] in May of 2018. It is at this time that we review and update the ICP if necessary.*

### **Auditor's Reply**

DOS did provide us with a copy of its most recent ICP. However, our review of this document indicated that it did not comply with CTR's Internal Control Guide in that it did not contain the five components of ERM: governance and culture; strategy and objective-setting; performance; review and revision; and information, communication, and reporting.

The ICP also did not include a risk assessment that included the likelihood and potential impact of risks. Based on the problems we found in this area, we again urge DOS to implement our recommendations on this matter.

## APPENDIX

### Massachusetts Towns with 5,000 or Fewer Inhabitants as of the 2010 Federal Census

Alford	Eastham	Montgomery	Sheffield
Aquinnah	Edgartown	Mount Washington	Shelburne
Ashby	Egremont	Nahant	Sherborn
Ashfield	Erving	New Ashford	Shutesbury
Avon	Essex	New Braintree	Stockbridge
Becket	Florida	New Marlborough	Sunderland
Berlin	Gill	New Salem	Tisbury
Bernardston	Goshen	North Brookfield	Tolland
Blandford	Gosnold	Northfield	Truro
Bolton	Granville	Oak Bluffs	Tyringham
Boxborough	Hancock	Oakham	Wales
Boylston	Hardwick	Otis	Warwick
Brimfield	Hatfield	Paxton	Washington
Brookfield	Hawley	Pelham	Wellfleet
Buckland	Heath	Peru	Wendell
Carlisle	Hinsdale	Petersham	Wenham
Charlemont	Holland	Phillipston	West Brookfield
Cheshire	Hubbardston	Plainfield	West Newbury
Chester	Huntington	Plympton	West Stockbridge
Chesterfield	Lanesborough	Princeton	West Tisbury
Chilmark	Leverett	Provincetown	Westhampton
Clarksburg	Leyden	Richmond	Whately
Colrain	Marion	Rowe	Williamsburg
Conway	Middlefield	Royalston	Windsor
Cummington	Millville	Russell	Worthington
Dunstable	Monroe	Sandisfield	
East Brookfield	Monterey	Savoy	