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CITY OF CHICAGO OFFICE OF INSPECTOR GENERAL

CHICAGO DEPARTMENT OF PUBLIC HEALTH AIR POLLUTION ENFORCEMENT AUDIT FOLLOW-UP



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**TO THE MAYOR, CITY COUNCIL, CITY CLERK, CITY TREASURER,
AND COMMUNITY:**

The City of Chicago Office of Inspector General (OIG) has completed a follow-up to its September 2019 audit of the Chicago Department of Public Health's (CDPH) Air Pollution Enforcement. Based on the Department's responses, OIG concludes that CDPH has fully implemented 10 out of 14 corrective actions, substantially implemented 2, and partially implemented 2.

The purpose of the 2019 audit was to determine if CDPH met its air quality inspection frequency goals, ensured that applicable facilities maintained a valid Certificate of Operations (COO), responded to air-quality complaints within 24 hours, and maintained complete and accurate records on the City's Data Portal. Our audit found that the Department was not meeting its internal goals for air-quality inspection frequency, was not consistently categorizing facilities based on their potential to emit pollution, and was not ensuring that facilities annually renew their required COO. We also determined that the Department did not ensure that violations identified by inspectors were resolved. Taken together, these performance issues increased the risk of excessive emissions that harm public health and the environment.

OIG also found that CDPH resolved 84% of air-quality complaints within 24 hours because it prioritized responding quickly to complaints. While some of the information on the City's Data Portal was incomplete, CDPH created a Lookup Table that was user-friendly and showed multiple environmental records related to a given address.

Based on the results of the audit, OIG made a number of recommendations to help CDPH strengthen its permit and inspection program to ensure that permitted facilities are operating in accordance with the Municipal Code of Chicago and minimizing air pollution, and that permit and inspection data is accurately provided to the public via the Data Portal. In its response to the audit, CDPH described corrective actions it would take.

In September 2020, OIG inquired about the status of corrective actions taken by CDPH in response to the audit. Based on CDPH's follow-up response, OIG concludes that the Department has fully implemented corrective actions for most of the issues raised in the audit. Specifically, CDPH,

- conducted a comprehensive review of its permit data and removed inactive records;

- developed an inspection priority index and dashboard to track progress towards these priorities. The priority index is based on factors such as a facility's history of COO compliance, emission level potential, and the pollution burden of the nearby community;
- is working towards filling vacant inspection positions and stated that it will engage with a consultant to help determine appropriate staffing levels;
- changed the date of COO renewal for all facilities to January 1, developed a dashboard that tracks the COO status of permitted facilities, and sends monthly notices to facilities whose renewals are overdue;
- made changes to the City's Data Portal to include all appropriate permit, inspection, and complaint records; and
- updated its policies and trained staff to address several issues, including supervisory review of potentially closed facilities and standards for when an inspector should issue and follow-up on an inspection warning.

We urge CDPH to continue working towards developing inspection frequency goals for all permitted facilities based on the inspection priorities it has developed, issuing refunds to permit holders who overpaid for their annual COO, and updating its Inspection Manual to reflect the many policy changes the Department has made. Below, we summarize our six audit findings and recommendations, as well as the Department's response to our follow-up.

We thank the staff and leadership of CDPH for their cooperation during the audit and responsiveness to our follow-up inquiries.

Respectfully,



Joseph M. Ferguson
Inspector General
City of Chicago

FOLLOW-UP RESULTS

In September 2020, OIG followed up on its September 2019 audit of the Chicago Department of Public Health's (CDPH) Air Pollution Enforcement.¹ CDPH responded by describing the corrective actions it has taken and providing supporting documentation. Below, we summarize OIG's six adverse findings, the associated recommendations, and the status of CDPH's corrective actions. Our follow-up did not observe or test implementation of the new procedures; thus, we make no determination as to their effectiveness, which would require a new audit with full testing.

FINDING 1:

CDPH did not meet its internal air-quality inspection frequency goals, thereby increasing the risk of not detecting violations that may harm public health and the environment.

OIG Recommendation 1:

OIG recommended that CDPH review its data to ensure that facilities are correctly designated as open or closed. This would reduce the risk of CDPH wasting resources attempting to inspect closed facilities.

Status of Corrective Action: **Fully Implemented**

The Department stated that it conducted a comprehensive review and clean-up of its data to identify and remove inactive records. First, it closed all permit applications found to be abandoned or redundant (e.g., for equipment covered by another permit). It also closed applications for temporary operations that had ceased and for equipment that does not require a permit. In 2020, CDPH also conducted its first annual audit of the permit database. That audit, in addition to the previous comprehensive review, resulted in the closure of 835 unnecessary applications.

OIG Recommendation 2:

OIG recommended that, after correcting its data, the Department develop inspection frequency goals and priorities informed by factors such as,

- the proximity of polluting facilities to overburdened communities, perhaps using a tool such as the United States Environmental Protection Agency's Environmental Justice Screening and Mapping Tool;

¹ The audit report is available on the OIG website: <https://igchicago.org/2019/09/16/chicago-department-of-public-health-air-pollution-enforcement-audit/>.

- public health data provided by other sections of CDPH;
- patterns indicating a higher likelihood of violations at certain facilities; and
- review of inspection practices in peer jurisdictions.

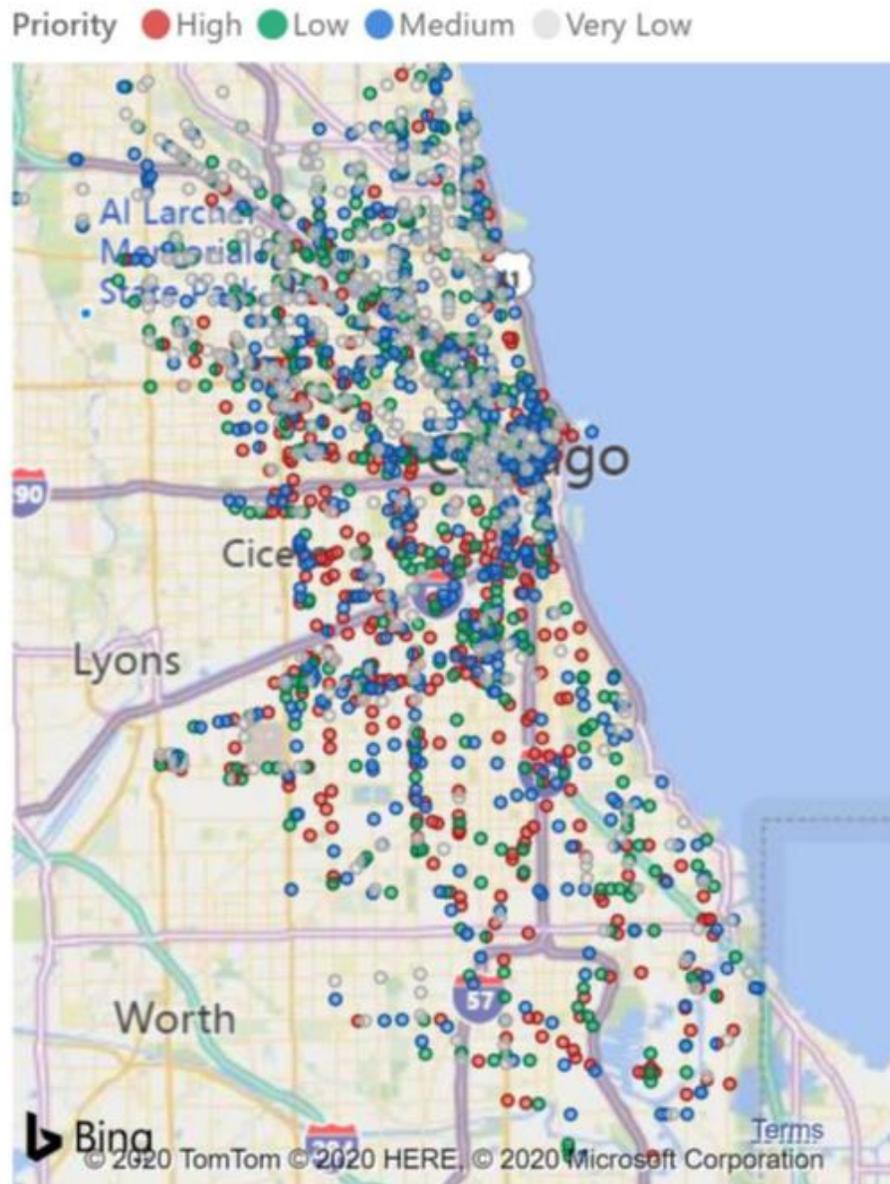
Status of Corrective Action: Substantially Implemented

CDPH stated that it developed an inspection priority index and a dashboard to track progress towards these priorities. The prioritization index incorporates the goals of,

- inspection coverage;
- past COO compliance;
- emission level potential;
- historic compliance status; and
- the pollution vulnerability or burden on proximate populations by using Air Quality Health Index (AQHI) data.

The Department estimates that the inclusion of AQHI data boosted the priority scores of vulnerable and heavily burdened communities by an average of 45%. CDPH provided Figure 1 below, which shows inspection priorities based on their index.

FIGURE 1: CDPH'S NEW CRITERIA INCREASES INSPECTION PRIORITY FOR FACILITIES IN VULNERABLE COMMUNITIES



Source: CDPH.

Finally, CDPH stated that it has issued a Task Order Request for a consultant to assist in translating the inspection priority index into inspection frequency goals. The Department received a response from one consultant and is working on issuing a Notice to Proceed.

OIG Recommendation 3:

Regarding staffing levels, OIG recommended that CDPH continue working to fill the positions added in the 2018 budget. We further recommended that after filling open positions, CDPH should assess inspection rates to determine how many additional inspectors it needs to safeguard public health and the environment, and then seek funding for those positions. Finally, we recommended that if no funds are made available, CDPH should develop realistic inspection goals in line with its resources and regularly evaluate whether it is meeting those goals.

Status of Corrective Action: **Partially Implemented**

CDPH stated that “In 2018, when the audit began, the Environmental Permitting & Inspections (EPI) unit had 23 filled positions and 4 vacancies. Currently in 2020, the EPI unit has 31 filled positions and 7 vacancies. During the time since the audit began, CDPH experienced the retirement of several EPI unit staff (EEII, Supervising Environmental Engineer, Environmental Investigator, Senior Environmental inspector, and Director of Environmental Inspectors). CDPH staff members also were ‘promoted from within’ or were on a recall list, affecting the number of new people brought into the unit (EEII and EEII). CDPH’s hiring process has been delayed due to the citywide hiring freeze in 2019, COVID-related activities in 2020, other priorities in the City’s hiring process, as well as some vacancies being filled by internal candidates – resulting in no net difference in vacancies, and staff retirements and resignations. CDPH continues work on filling vacancies according to the Department’s Hire Plan and has not proposed cutting EPI vacancies, even while other CDPH vacancies have been cut in the City’s 2021 budget planning process.”

In October 2020, CDPH stated that the *“The remaining 7 vacancies are all active in the hire process and we hope to fill all remaining vacancies by the end of 2020, barring another hiring freeze.”* As of December 2020, the Department stated that they had filled five of the seven vacancies.

The Department also stated that it has adopted a policy for supervisors to review their inspectors’ time sheet and inspection data on a weekly basis to evaluate performance. CDPH is working towards securing a consultant who will assist in determining the appropriate staffing levels to accomplish Department goals.

OIG Recommendation 4:

To promote efficiency and consistency, OIG recommended that CDPH draft and adopt an inspection manual that includes guidance on prioritizing inspections.

Status of Corrective Action: Partially Implemented

CDPH stated that it will not update the inspection manual until it works with an environmental consultant to evaluate inspection frequency requirements and staffing levels. The Department expects to revise the manual by June 30, 2021. However, the Department stated that it has begun piloting the use of Field Force Manager to assign inspections based on its revised inspection priority framework.

OIG Recommendation 5:

OIG recommended that CDPH provide guidance to supervisors regarding the review of facilities flagged by inspectors as potentially closed.

Status of Corrective Action: Fully Implemented

CDPH stated that if inspectors identify a facility that appears to be closed, they should utilize the inspection results code “Defect 10.” This flags the inspection for review by the supervisor. Supervisors are expected to verify the status of the facility, and then close the facility’s permit application, if appropriate. The Department updated the inspection review policy to reflect this new process and provided corresponding training to staff on October 16, 2020.

FINDING 2:

CDPH did not ensure that facilities renewed annual certificates of operation.

OIG Recommendation 6:

OIG recommended that CDPH develop, document, and implement a COO enforcement system that takes full advantage of currently available data. For example, we suggested that CDPH could run a monthly report identifying facilities that have not renewed their COO and record the amount of time they have been operating with an expired Certificate. The Department could then contact those facilities to determine why they have not renewed and take appropriate enforcement action.

If CDPH continues its current practice of issuing reminders, OIG recommended sending the reminders on a rolling basis—i.e., shortly before each facility’s annual COO expiration date—rather than sending notice to all facilities in January.

Status of Corrective Action: Fully Implemented

Rather than sending COO renewal reminders to permitted facilities on a rolling basis, CDPH stated that it changed the renewal date for all facilities to January 1. The Department then developed a dashboard that tracks the COO status of permitted facilities. CDPH provided OIG with a copy of the dashboard report. CDPH stated that it sends monthly renewal notices to facilities that are not current and is working with the Department of Assets, Information and Services (AIS) to update the web permit portal to allow permitted facilities to pre-pay their annual COO before the end of the year. CDPH also developed a policy that clarifies when an inspector can issue a warning or citation due to COO non-renewal.

OIG Recommendation 7:

To increase the consistency of enforcement action taken by inspectors, OIG recommended that CDPH clearly describe in its inspection manual the circumstances under which an inspector should issue a citation or a warning for an expired Certificate of Operation.

Status of Corrective Action: Fully Implemented

CDPH created a policy that clarifies when inspectors should issue citations or warnings for an expired COO. The Department stated it trained staff on this policy on October 16, 2020, and the policy would be included in its updated inspections manual when it is published, which is expected on or before June 30, 2021.

FINDING 3:

CDPH did not categorize potential emissions for 359 facilities.

OIG Recommendation 8:

OIG recommended that CDPH review all payment records to identify instances of incorrect payments and issue refunds as appropriate. We further recommended that the Department review the 359 uncategorized facilities, determine whether they are in operation, and, if so, assign them a category.

Status of Corrective Action: Substantially Implemented

CDPH stated that it has established a procedure in the permit database, Hansen, to issue refunds to facilities that made incorrect payments. However, CDPH management stated that only one refund of \$999 had been issued as of December 2020.

The Department also provided OIG with a spreadsheet demonstrating its review and categorization of the 359 facilities that were previously found to be uncategorized.

OIG Recommendation 9:

OIG recommended that CDPH implement a process that does not rely on charging facility owners a placeholder fee of \$999 to prompt them to contact CDPH for an initial inspection to obtain a categorization. We recommended, for example, that the Department could assign each facility a category during the permit application review based on the information in the facility's state air permit and its intended operations. If a facility has not yet acquired a state permit, we suggested that CDPH could assign a temporary category based solely on intended operations, which could then be confirmed or corrected upon initial inspection.

Status of Corrective Action: **Fully Implemented**

CDPH stated that it has changed its process so that emission categories are assigned to facilities at the time of their application for a City permit, rather than at the time of their initial inspection. These categorizations are based on each facility's permit information from the Illinois Environmental Protection Agency. The Department is also working with AIS to update Hansen to calculate each facility's annual COO fee based on its emission category.

FINDING 4:

CDPH does not ensure that violations identified by inspectors are corrected, creating the risk of avoidable impact on public health and the environment.

OIG Recommendation 10:

OIG recommended that if CDPH continued to allow discretionary warnings, it should ensure that inspectors follow up on them promptly. We also recommended that the Department identify a single code to be used for all warnings, and that management regularly generate reports to monitor their status. Finally, we recommended that CDPH document in its inspection manual all follow-up and enforcement activities required when an inspector issues a warning.

Status of Corrective Action: Fully Implemented

CDPH stated that it reduced the number of inspection result codes for discretionary warnings to one. The Department also stated that it drafted a policy to clarify when warnings should be issued and trained staff on this policy on October 16, 2020. Under the new policy, warnings may be issued in the event of a facility lacking an air permit or a current COO. CDPH will include the policy in the Department's updated inspection manual, which is expected to be completed on or before June 30, 2021.

Finally, CDPH is exploring a modification to Hansen such that a follow-up inspection is automatically generated in the system when an inspector issues a warning.

FINDING 5:

CDPH resolves approximately 84% of air-quality complaints within 24 hours, but the department should record complaint-based inspections more consistently.

OIG Recommendation 11:

OIG recommended that to ensure data consistency and accurately measure air-quality complaint resolution, CDPH direct inspectors to record any complaint inspection in the original complaint record within its inspection system. We recommended that these instructions be documented in the Department's inspection manual.

Status of Corrective Action: Fully Implemented

CDPH stated that inspections related to a complaint should generally be documented in the original complaint record. However, if an inspector needs to create a new inspection record (for example, if the complaint address is wrong), then the original complaint record should include a brief narrative that references the work order number for the new inspection record. The Department drafted a new policy to this effect and staff received training on it on October 16, 2020.

FINDING 6:

The information regarding air-quality permits, complaints, and inspections available on the City's Data Portal is incomplete.

OIG Recommendation 12:

OIG recommended that CDPH remove unissued permits from the Data Portal and determine if the 20 potentially miscategorized active permits require correction.

Status of Corrective Action: Fully Implemented

CDPH stated that it modified the query that populates the Data Portal to return only issued permits and provided OIG a spreadsheet demonstrating this change. The Department also reviewed the 20 potentially miscategorized permits. This review concluded that 8 were not miscategorized and 12 were miscategorized. Of the 12, 1 should have been an architectural surface cleaning permit and 11 should have been dry cleaning facility permits. CDPH emphasized that, from an environmental and public health perspective, the consequences of issuing the wrong permit are minimal, but committed to ensuring that staff are appropriately trained to review and classify permit applications.

OIG Recommendation 13:

OIG recommended that CDPH review each complaint record that is missing from the Data Portal, determine the cause for its omission, and ensure that it is added.

Status of Corrective Action: Fully Implemented

CDPH compared complaints in Hansen to the Data Portal and identified 1,048 records missing from the latter database. CDPH stated that the Data Portal was corrected to include these records. The Department then conducted a second review in September of 2020. CDPH provided a report to OIG demonstrating that all relevant complaint records from Hansen are now in the Data Portal.

OIG Recommendation 14:

OIG recommended that CDPH identify and correct any system process errors preventing inspection records from uploading to the Data Portal.

Status of Corrective Action: Fully Implemented

CDPH reviewed the omitted records and provided OIG with a record of its analysis. Seventy-five percent of the omitted records were excluded purposefully because they had blank inspection narratives, had non-meaningful inspection result codes such as "void," or were conducted prior to the development of

Hansen. The remainder of the omitted records were excluded due to a query error that the Department said it immediately fixed upon discovery in late 2018. CDPH stated that it has added the previously omitted records to the Data Portal and plans to conduct an annual audit of the Data Portal to ensure that it accurately reflects the inspection records in Hansen.

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The City of Chicago Office of Inspector General (OIG) is an independent, nonpartisan oversight agency whose mission is to promote economy, efficiency, effectiveness, and integrity in the administration of programs and operations of City government. OIG achieves this mission through,

- administrative and criminal investigations by its Investigations Section;
- performance audits of City programs and operations by its Audit and Program Review Section;
- inspections, evaluations and reviews of City police and police accountability programs, operations, and policies by its Public Safety Section; and
- compliance audit and monitoring of City hiring and human resources activities and issues of equity, inclusion and diversity by its Diversity, Equity, Inclusion, and Compliance Section.

From these activities, OIG issues reports of findings and disciplinary and other recommendations,

- to assure that City officials, employees, and vendors are held accountable for violations of laws and policies;
- to improve the efficiency and cost-effectiveness of government operations; and
- to prevent, detect, identify, expose, and eliminate waste, inefficiency, misconduct, fraud, corruption, and abuse of public authority and resources.

AUTHORITY

OIG's authority to produce reports of its findings and recommendations is established in the City of Chicago Municipal Code §§ 2-56-030(d), -035(c), -110, -230, and 240.

Cover image courtesy of the Department of Assets, Information and Services.

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