INSPECTION, TESTING, AND MAINTENANCE OF FIRE AND LIFE SAFETY SYSTEMS AT THE YOUTH SERVICES CENTER AND NEW BEGINNINGS YOUTH DEVELOPMENT CENTER

Report 2025 – 1

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OFFICE OF INDEPENDENT JUVENILE JUSTICE FACILITIES OVERSIGHT

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TABLE OF CONTENTS

I. INTRODUCTION

This Office of Independent Juvenile Justice Facilities Oversight (OIJJFO) was created by Mayor's Order upon the termination of the Jerry M. litigation in 2021 to "regularly monitor and publicly report on ….[t]he durability of the reforms the Department of Youth Rehabilitation Services ("DYRS") previously achieved under the Jerry M. Work Plan and Consent Decree; and DYRS's progress in achieving Jerry M. Work Plan Goals, including critical Work Plan indicators, that DYRS did not achieve prior to the Superior Court's termination of the Jerry M. lawsuit."[1] The Office was subsequently established within the Office of the District of Columbia Auditor (ODCA) for fiscal year 2025.[2] In December 2024, the Council of the District of Columbia passed the Recidivism Reduction at DYRS Amendment Act of 2024, transferring the functions of the Office permanently to ODCA, with certain additional functions, subject to appropriations.[3]

This report focuses on the inspection, testing, and maintenance (ITM) of fire and life safety systems at DYRS's two secure facilities, the Youth Services Center (YSC) and the New Beginnings Youth Development Center (New Beginnings) between September 2020 and November 2023, with select updates through 2024. A draft version of this report was transmitted to DYRS on March 10, 2025 for agency review and comment. DYRS provided comments to

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[1] Mayor's Order 2020-115, November 13, 2020, §§I.A.1.-2.
[2] This was done in the 2025 Budget Support Act.
[3] The legislation states that ODCA shall: "(1) Regularly monitor and publicly report on the durability of the reforms implemented by the Department achieved under the Work Plan and Consent Decree negotiated to resolve Jerry M., and the Department's progress in achieving work plan goals, including critical work plan indicators, that the Department did not achieve prior to January 6, 2021, which may include providing housing for discrete populations, meeting standards to ensure all facilities are safe and humane, and providing free and appropriate education; and (2) Monitor and publicly report on the completeness and timeliness, based on a prima facie review, of individualized rehabilitation plans developed by the Department pursuant to D.C. Official Code § 16-2319."

OIJJFO on March 24, 2025, which are included as an attachment to this report.[4] OIJJFO appreciates DYRS staff's cooperation throughout the assessment process.

II. BACKGROUND

Locked facilities present unique and heightened fire safety risks because building occupants are not able to evacuate themselves independently during a fire event. The risk of fire increases if contraband that could ignite a fire is introduced into a facility.[5] Critical first lines of defense for modern building structures are operational fire detection and suppression systems.[6] It is essential that these systems are routinely inspected, tested, and maintained to ensure that, in the event of a fire, the systems will activate to warn and prevent loss of life, injury, and destruction of property. Applicable inspection, testing, and maintenance standards are developed and updated by the National Fire Protection Association (NFPA) and incorporated into Title 12 of the District of Columbia Municipal Regulations (DCMR). The requirements are highly technical and require specialized knowledge to implement.

Prior to the opening of the YSC in 2004 and New Beginnings in 2009, DYRS (then the Youth Services Administration), housed youth at Oak Hill Youth Center (Oak Hill), a facility

[4] Attachment 1, March 24, 2025, Memorandum from Sam Abed, DYRS Director, to Mark Jordan, Executive Director, OIJJFO.

[5] There are examples of contraband that could start a fire entering both the YSC and New Beginnings. For example, in July 2021, a lighter was found in possession of a youth on one of the New Beginnings housing units (IR no. 10089). Additionally, vape pens, which contain batteries that can ignite if they malfunction, have been found at both facilities. Between June 3, 2023 and February 3, 2025 there were eight incident reports detailing vape pens that were found in possession of youth or on housing units at the YSC (IR nos. 12688, 13447, 14499, 14684, 15376, 15676, 16702, 16784). At New Beginnings there were 15 incident reports detailing vape pens found at the facility between February 16, 2023 and February 13, 2024 (IR nos. 12106, 12205, 12838, 12843, 12851, 12919, 13118, 13164, 13178, 13423, 13470, 13499, 13500, 13814, 14261).

[6] In fact, Thomas Jaeger, a nationally recognized fire safety expert who assessed DYRS's fire safety systems, wrote that "[t]he most effective resources for mitigating the risk of loss of life and destruction of property due to fire in a locked facility are properly functioning and properly inspected, tested, and maintained fire/life safety and locking systems." The Special Arbiter's Report to the Court Regarding Defendants' Progress Toward Meeting Work Plan Requirements Related to Fire Safety at the Youth Services Center and the New Beginnings Youth Development Center, filed March 16, 2015 (March 2015 Report) at App. B, Ex. 1 at page 18.

that was constructed decades prior with limited-functioning fire detection systems and most housing units without fire suppression systems.[7] The fire safety contracts in effect in 2004, at the time of a baseline expert evaluation, were "basically a single line scope of work purchase order with absolutely no details."[8] The evaluation added that "[c]ontracts for obtaining services for the testing and maintenance of fire protection systems should reference the appropriate national standards and what type of report the District wants from the contractors. The reports should, at a minimum, indicate the systems that were tested and what tests were conducted on which devices. The reports should also include what maintenance was performed."[9]

As new facilities, the YSC and New Beginnings were constructed according to then-current building codes, with modern fire safety systems; however, after decades of operation without a minimally adequate fire safety infrastructure, DYRS did not have the employees with the knowledge, skills, and abilities to develop, implement, and oversee these services. Thus, DYRS had to develop for the first time the capacity to oversee the ITM of the two facilities' fire and life safety systems, a process that took years. Because of the highly technical nature of ITM of fire safety systems, the Jerry M. Work Plan required DYRS to maintain contracts for the maintenance and testing of all fire protection systems and equipment (*i.e.,* and not attempt to perform those functions with agency staff) in accordance with the DC Fire Prevention Code and the Life Safety Code.[10]

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[7] Mr. Jaeger, the fire safety expert who assessed fire safety in DYRS facilities during much of the pendency of the Jerry M. litigation, wrote in a 2004 report, "[m]ost older building/fire codes did not adequately address fire safety in detention and correctional facilities until sometime after the mid 1980's" after "several serious multiple death fires were reported in U.S. and Canadian detention and correctional facilities." March 2015 Report at Ex. 1, page A-2. As a temporary risk mitigation effort, in 2005, fire detection systems at Oak Hill were upgraded and Youth Development Representative staff were trained in the use of self-contained breathing apparatus which they could use during a fire evacuation event. Oak Hill was subsequently closed in May 2009.

[8] March 2015 Report at Ex. 1, page 9.

[9] *Id*.

[10] November 21, 2019 Revised Final Approved Amended Comprehensive Work Plan (Work Plan) at Goal VII.B.2.a. The DC Fire Safety Code is incorporated into the DCMR and incorporates by reference NFPA standards.

By 2014, a subsequent assessment conducted by the same fire safety expert who conducted the baseline assessment 10 years before found that while DYRS had made progress, ITM of fire safety systems remained "very deficient,"[11] were not guided by adequate contracts, and did not meet established testing standards.[12] Among other issues, contractors DYRS engaged to perform ITM services were not able to identify the standards they were using to perform testing and were not completing all required testing.[13]

Over the ensuing years, DYRS significantly enhanced their ITM contracts and practices, developing detailed forms consistent with NFPA standards to ensure contractual work met applicable codes, and by 2016, began to implement much improved ITM practices. In 2018, the Jerry M. Court appointed Special Arbiter conducted a follow-up fire safety assessment[14] to assess DYRS's progress. The Special Arbiter found that DYRS "[had] in place the required inspection, testing, and maintenance contracts, and qualified contractors [were] required to perform these services consistent with appropriate standards."[15] There were, however, certain ongoing, documented problems, including DYRS's limited capacity to timely correct deficiencies that were identified on the inspection instruments.[16]

In 2020, the Special Arbiter conducted a final fire safety assessment and found that DYRS had "established contracts for appropriate inspection, testing, and maintenance of the fire protection systems and equipment at the YSC and New Beginnings….[but that] there are several

[11] March 2015 Report at App B, Ex. 1, page 26.
[12] *Id*. at page 27.
[13] *Id.* at pages 21-22.
[14] After the retirement of Mr. Jaeger, the Special Arbiter engaged new experts, fire safety engineers from the consulting firm Jensen Hughes.
[15] The Special Arbiter's Report to the Court Regarding Defendants' Progress Toward Meeting Work Plan Requirements Related to Fire Safety at the Youth Services Center and the New Beginnings Youth Development Center, filed December 6, 2018 (December 2018 Report), at page 68.
[16] *Id*. at pages 68-69.

aspects of the inspection, testing, and maintenance program that require further action."[17] The Special Arbiter additionally cautioned that while DYRS maintained contracts with qualified contractors and ITM activities had been conducted using appropriate standards, in July 2020 DYRS entered a contract with a new ITM vendor. The Special Arbiter added that "[i]n light of the long history in this case of inadequate inspection, testing…in DYRS facilities, it is critical that [DYRS] make every effort to ensure that contractors who perform these functions are appropriately qualified and that DYRS staff who oversee the work of those contractors have sufficient knowledge to determine whether all required testing is completed thoroughly and on schedule."[18]

III. METHODOLOGY

This assessment of ITM covers a multi-year period since the Special Arbiter's last assessment in July 2020 and was conducted by the same experts that conducted the last assessment, Mr. Eric Rosenbaum, PE, FSFPE and Mr. Erik Anderson, PE, both from Jensen Hughes, a professional engineering and consulting services company headquartered in Baltimore. Jensen Hughes reviewed samples of ITM documentation from the period September 2020 through 2023 for some ITM areas and 2024 for others.[19] Jensen Hughes reviewed 159 ITM monthly and annual ITM reports.[20] At the request of OIJJFO in consultation with DYRS,

[17] The Special Arbiter's Abbreviated Report to the Court Regarding Defendants' Progress Toward Meeting Work Plan Requirements Related to Fire Safety at the Youth Services Center and the New Beginnings Youth Development Center, filed July 15, 2020 (July 2020 Report), at page 2.
[18] *Id*. at 23.
[19] The sampled periods varied by ITM category, in part based on their findings. For a specific list of ITM documentation reviewed, see Attachment 2, Youth Services Center and New Beginnings Inspection, Testing, and Maintenance Assessment, D.C. Department of Youth Rehabilitation Services, Eric R. Rosenbaum, PE and FSFPE, and Erik H. Anderson, PE, January 17, 2025, at Appendix A.
[20] Attachment 2 at Appendix A for a list of documents reviewed by Jensen Hughes.

Jensen Hughes also conducted a March 27, 2024 YSC site visit to test the facility's fire alarm system and produced an associated report.[21]

Additionally, OIJJFO staff reviewed contractual documentation regarding ITM services and interviewed DYRS staff responsible for overseeing fire safety at the secure facilities. Furthermore, OIJJFO reviewed documentation associated with all deficiencies identified in the sampled ITM reports from 2023; there were a total of 17 documented deficiencies in that sample, seven of which were at the YSC and 10 at New Beginnings. OIJJFO assessed whether DYRS conducted appropriate remediation of these deficiencies and the timeline for any remediation.

IV. FINDINGS

As described below, between 2020 and mid-2024 DYRS maintained contracts for ongoing ITM of its fire and life safety systems and during that period, there were changes in contractors. The various contractors continued to produce reports documenting test results and identifying deficiencies, although Jensen Hughes found there were qualitative differences in ITM documentation produced by different contractors. Further, there is evidence that not all documented deficiencies, including some significant deficiencies, were addressed by DYRS and some that were addressed were not fixed timely. In summer 2024, DYRS's ITM contractual services stopped and services did not resume until March 2025, after the issuance of the draft version of this report. These findings are described in more detail below.

A. Inspection, Testing, and Maintenance of the Fire Alarm Detection and Fire Alarm Reporting Systems

Fire alarm systems are a first line of fire safety defense, notifying building occupants of a hazard, initiating a fire response. Until the construction of the YSC and New Beginnings, DYRS

[21] As part of that fire alarm assessment, Jensen Hughes reviewed additional fire alarm documentation.

did not benefit from modern, functional fire alarm systems. In 2004, Tom Jaeger, PE found that the fire alarm systems at the sole facility operating at the time, Oak Hill, were "very old and not electrically supervised,"[22] noting that "[a]ll modern fire alarm systems can be electrically supervised."[23] He added that "[t]wo of the fire alarm systems in the housing areas did not work when tested"[24] during his site visit.

Unlike most buildings, including New Beginnings, the first response to a fire at the YSC is not to evacuate to the outside. Rather, the YSC is considered a "shelter in place" facility and the first response is to remain in place or to move within the facility from one isolated "smoke compartment" to another, depending on the circumstances and fire location. Fire alarm systems are particularly important because the fire detection system can inform staff not just of the presence of a fire, but also of the location of a fire hazard, which dictates internal evacuation routes and destinations.

In their 2020 assessment, Jensen Hughes assessed DYRS's ITM of the fire alarm systems based on a review of documentation from 2019. They found that the fire alarm detection and reporting systems at both the YSC and New Beginnings were tested according to the applicable standards and that issues that were identified during the 2019 testing were remediated.[25] They did identify a recurrent problem that was identified during their prior, 2018 assessment: inconsistencies in the reported number of fire safety devices (*e.g.,* smoke detectors) from one test to the next.[26] Jensen Hughes recommended that accurate device inventories at both facilities be maintained and kept up to date in order to ensure that fire alarm testing conducted by contractors

[22] March 2015 Report at Ex. 1, page 10. Mr. Jaeger served as the expert fire safety consultant to the Special Arbiter. Among other accomplishments, Mr. Jaeger served on the Board of Directors of the National Fire Protection Association for 20 years, serving as the Board Chair from 2010 - 2011.
[23] *Id*.
[24] *Id*.
[25] July 2020 Report at Ex. 1, page 3.
[26] *Id*. at page 4.

is complete. Subsequent to the 2020 assessment, DYRS changed contractors in 2020 and again in 2021.

To assess the status of DYRS's fire alarm testing practices since the 2020 assessment, Jensen Hughes reviewed a sample of eight non-consecutive months of fire alarm ITM documentation from the period between September 2020 and June 2023 at the YSC and nine months of documentation during that period at New Beginnings. The sample included reports produced by both ITM vendors DYRS engaged during that period.

The review found that as of mid-2023, DYRS continued to use the detailed forms that the agency had developed and that "testing appears to be conducted consistent with appropriate NFPA standards and issues are documented on the forms."[27] The review once again documented that a problem identified in its 2018 and 2020 evaluations – inconsistencies in testing of the reported number of devices – remained an issue in the ITM documentation at both the YSC and New Beginning.[28] In some cases, the reported number of tested devices varied significantly from one test to another, casting doubt on the completeness of the testing.[29] Additionally, the report noted that at both facilities some devices that do not exist or likely do not exist within the fire alarm system were listed as passing.[30]

The report also noted that testing documentation does not indicate whether identified problems were resolved, and if so, how and when.[31] The report acknowledges that it is possible

[27] Attachment 2 at page 5.
[28] *Id*. at pages 5-9.
[29] *Id*. at pages 5-6. The report notes for the annual testing at the YSC conducted by the vendor DYRS used in 2021 to 2023, the device data "is different each year, with some variations of approximately 100% (48 smoke detectors vs 86 smoke detectors)." *Id*. at page 5. As described in more detail below, on March 27, 2024 Jensen Hughes conducted their own test of the YSC system and extracted data regarding the number of devices directly from the fire alarm panel. The panel indicated that there were a total of 115 smoke detectors monitored by the system at that time. At New Beginnings, the report notes that the 2023 device count was "different by approximately 300% (52 smoke detectors vs. 16 smoke detectors)" with no explanation. *Id.* at page 8.
[30] *Id*. at pages 7-8.
[31] *Id.* at page 9.

that problem resolution may have been documented elsewhere, but recommends that any remedial actions be documented together with the ITM documentation.

To assess DYRS's remedial action practices since the 2020 report, OIJJFO staff reviewed all deficiencies that were identified in the sample of 2023 ITM reports evaluated by Jensen Hughes from the YSC and New Beginnings. Five of the deficiencies in the sample related to the fire alarm system, three at New Beginnings and two at the YSC.[32] The deficiencies at New Beginnings pertained to problems identified in two housing units.[33] Documentation provided by DYRS indicates that the work orders for these deficiencies were issued between four and 74 days after the issuance of the ITM report and repairs were completed between 11 and 81 days after the issuance of the ITM report. The two deficiencies in the sample from the YSC were significant and recurring issues with the fire alarm system that had been cited for multiple months. A deeper review indicated that beginning in January 2023, ITM documentation had a handwritten note indicating that the fire alarm "panel [was] condemned." Furthermore, documentation noted that several system components were recorded as "fail" on monthly testing documentation, including some smoke detectors, voice/alarm communications, fire alarm boxes, and heat detectors.[34]

Based on these findings, in early February 2024 OIJJFO staff spoke with representatives from Jensen Hughes to understand if they could determine the significance of the documented problems with the YSC fire alarm system. Jensen Hughes representatives indicated that the term "condemned" is not a standard term used in the fire safety industry to describe fire alarm system components and they could not state what it indicated. Furthermore, based on their review of the

[32] The two YSC deficiencies were the same issue cited in the ITM reports for two months, January and July 2023, because the issue was not resolved.
[33] The reported problems included audio/visual appliances not working and issues with pull stations.
[34] See Attachment 2 at page 10 for an example from the July 2023 ITM documentation.

ITM documentation, Jensen Hughes could not determine whether the fire alarm system was functional.

Approximately one week later, OIJJFO convened a phone call among representatives of DYRS, the ITM contractor who performed the fire alarm system testing, and Jensen Hughes representatives to gain a better understanding of whether the YSC fire alarm system was fully functional. During the call, DYRS's ITM contractors stated that the fire detection system was not fully operational and that there was, in fact, a risk that a fire in the building could occur and that the system would not alert DYRS staff either of the fire or of the proper location of the fire within the building. Furthermore, the fire panel in the Control Center, which communicates fire emergencies to the DYRS staff members responsible for coordinating fire responses within the building, was in a constant state of flashing false "trouble signals," making it difficult to obtain useful information from the fire panel.

Ultimately, because of the lack of clarity regarding the operational status of the fire alarm system and whether the system would detect a fire event in the secure facility, DYRS agreed to have an independent assessment of the system conducted by a different vendor. After initial delays caused by funding availability and contracting processes, OIJJFO offered to fund an independent assessment of the fire alarm system at the YSC using its own experts, Jensen Hughes.[35]

[35] Initially, DGS stated that they did not have sufficient funding available and in response DYRS identified its own funding for the testing. DYRS initially proposed engaging OIJJFO's vendor directly, but OIJJFO elected instead to pay for the testing and avoid the vendor having a conflict by working for both OIJJFO and DYRS. DYRS agreed to this arrangement.

Jensen Hughes developed a fire alarm test plan,[36] which was conducted on March 27, 2024 and documented in an April 23, 2024 report.[37] All manual pull stations and all smoke detectors within the secure portion of the YSC were tested.[38] Jensen Hughes found the following:

> Based on the test results and observations made during the site visit, the fire alarm system is currently operational. An alarm condition at an initiating device (e.g., smoke detector or pull station) in the building will result in an alarm condition at the fire alarm panel (FACU) located in the Central Control Room. The device address and a text description indicating the location of the device in alarm [status] is accurately displayed on the FACU. This information enables YSC staff to implement the YSC Fire Safety and Emergency Evacuation Plan.[39]

However, Jensen Hughes made a series of recommendations including, but not limited to, replacing or upgrading the fire alarm system at the YSC as the existing system is no longer supported by the manufacturer; repairing the microphone that enables public announcements by DYRS staff; and installing a "Network Command Center (NCC)" to convey fire-related information to Control Center staff.[40]

This last recommendation was particularly important because at the time of the test, the YSC Control Center was under renovation, and therefore Control Center staff were relocated on a temporary basis to an alternate location where they did not have access to the fire alarm panel that would identify the location of any fire inside the facility.[41] A remote NCC would enable

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[36] Attachment 3, Youth Services Center, 1000 Mount Olivet Road, NE, Washington DC 20002 Fire Alarm System Test Plan, March 25, 2024.

[37] Attachment 4, April 23, 2024 e-mail from Mark Jordan to Kenneth Dudley, Wallis Norman, and Mark Hamlett transmitting Youth Services Center, 1000 Mount Olivet Road, NE, Washington DC 20002 Fire Alarm System Test Report, April 23, 2024. The test findings from the tests were initially discussed during an April 1, 2024 call among OIJJFO staff, DYRS staff, and representatives of Jensen Hughes.

[38] Fourteen manual pull stations and 66 smoke detectors were tested. Additional pull stations and smoke detectors on the non-secure portion of the YSC, which are monitored by the system, were not tested.

[39] Attachment 4 at pages 7-8.

[40] *Id.* at pages 8-10. Jensen Hughes describes an NCC as a "Windows based computer with color-display that can convey fire alarm information in a graphical, user-friendly format." *Id.* at 9. For example, an NCC can illustrate fire alarms on a map-based system, eliminating the need for staff to read text from an LED panel.

[41] Between February 26 and September 8, 2024 the YSC Control Center was under renovation.

staff in the temporary Control Center to identify the location of the fire and direct the staff response to any fire event. This is especially critical at the YSC where, as noted above, staff's first response to a fire is to remain within the building, directed by Control Center staff, rather than to evacuate to the outside of the building.[42] This recommendation was not implemented during the six and a half-month period that Control staff operated out of a temporary location.

In September 2024, the renovated Control Center reopened and staff now have direct access to the fire alarm panel; nevertheless, as of February 2025, the fire alarm panel remains in a constant "trouble" status. DYRS has reported that the fire alarm system is to be replaced during Fiscal Year 2025, and that the replacement process will reportedly begin in March 2025. As part of the replacement process, DYRS should include an NCC with a graphical interface that clearly shows the geographical location of any fire alarms in the facility, which would facilitate Control Cener staff's ability to coordinate and communicate directions to staff regarding how to respond to a fire.

Beginning in July 2024, DYRS's fire safety contracts expired and the fire alarm system was not inspected or tested again until mid-March 2025, a critical lapse in inspection and testing. In their comments on the draft version of this report, DYRS stated that "[t]he most recent fire safety inspection was conducted on March 11-13, 2025. This was completed less than one (1) year from the last inspection."[43] While *inspections* were last conducted in July 2024, the prior *annual test* of the system occurred in January 2024, more than one year before the March 2025 system test.

[42] In the event of a fire at the YSC, staff may hear a fire alarm, but not see the fire. Control staff must communicate to the staff whether they should evacuate horizontally to another smoke compartment or remain in place to avoid potentially evacuating *into* a fire.
[43] Attachment 1 at page 1.

B. Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems

In their 2020 assessment, Jensen Hughes found that the water-based fire protection systems at both the YSC and New Beginnings were being tested using appropriate standards and that identified issues were addressed.[44] Jensen Hughes' January 2025 report documents that DYRS changed contractors in mid-August 2021. The level of documentation that Jensen Hughes reviewed since 2020 is less specific and less complete than documentation reviewed in 2020. More detailed documentation regarding apparatus testing and any repairs or replacements is important, especially when vendors change over time, as they did in 2020 and 2021.

To conduct their assessment, Jensen Hughes reviewed 18 months of testing documentation over the period 2020 to 2023. The report notes that "[w]ith a few exceptions, the review of the documents for NB and YSC indicates that the ITM procedures [applicable to water-based fire protection systems] are being conducted consistent with appropriate NFPA standards and issues that are identified are documented on the forms."[45]

The Jensen Hughes report does identify certain weaknesses in testing documentation. First, the report notes that "details on the [ITM] forms completed by [the vendor that began in mid-2021]…are limited to aggregate notations indicating whether a device(s) passes or fails. The extent of ITM of the devices and the number of devices inspected or tested would be necessary to confirm that all ITM is being provided."[46] They also observed that in some cases, documentation was not complete, with certain fire safety apparatus *not* marked as either passing

[44] July 2020 Report at pages 24-25.
[45] Attachment 2 at page 12.
[46] *Id.* To illustrate, the report states, "[f]or example, at NB and YSC in the January 2022, March 2022, and the 2023 documentation, there is no reference to which devices were inspected or what test was performed. Additionally, the August 2021 YSC ITM report completed by DC Life Safety documents the semi-annual sprinkler and valve inspection, but from the ITM report it cannot be determined what specific items were inspected and tested. In addition, it was indicated that outdated gauges were replaced, but the report was not clear which gauges were replaced and how many."

or failing a test, which called into question whether those apparatus were tested and therefore whether testing was complete.[47] It is incumbent on DYRS staff to review testing documentation submitted by ITM vendors to ensure that the testing is complete.

As with ITM related to the fire alarm system, testing documentation was not maintained with documentation regarding remedial actions.[48] OIJJFO staff reviewed all deficiencies that were identified in the sample of 2023 ITM reports reviewed by Jensen Hughes from the YSC and New Beginnings. There was one deficiency related to the water-based fire protection systems at the YSC[49] and none at New Beginnings. DYRS reported that there had been a massive water leak on the non-secure side of the facility leading to significant damage in May 2023, which required substantial renovations. During the hours when renovations were taking place, the water was shut off to enable repairs but was turned on immediately following the repairs on the same day. The ITM inspection took place while some of the repairs were taking place.

According to DYRS staff, as with the fire detection and alarm systems, testing of water-based fire suppression systems stopped in July 2024. As noted above, in its comments on the draft version of this report, DYRS stated that recent fire safety inspections were conducted in March 2025.[50] DYRS staff informed OIJJFO staff that these inspections included testing of fire suppression systems, which had last occurred in January 2024. Staff reported that during the March 2025 testing, a leak was discovered in the YSC fire pump, and testing was paused pending repairs.[51] This underscores how critical routine inspection, testing, and maintenance of fire and life safety systems is to identify and correct problems with the systems. As of the

[47] *Id.* at pages 14-15.
[48] *Id.*
[49] The reported deficiency was that sprinkler systems were shut off.
[50] Attachment 1 at page 1.
[51] In a multistory building like the YSC, a fire pump provides needed water pressure to supply sprinklers on upper floors.

issuance of this report, annual testing is not complete at the YSC, but is complete at New Beginnings.

C. Inspection, Testing, and Maintenance of Portable Fire Extinguishers

In their 2020 report, Jensen Hughes found that as of 2019, fire extinguishers were tested using appropriate standards but recommended a change in recordkeeping practices.[52] Specifically, the report recommended that DYRS maintain a more specific inventory of fire extinguishers than they had been maintaining to ensure that all devices were tested at the appropriate interval, which can range anywhere from five to 12 years, depending on the device.[53]

According to documentation maintained by DYRS, fire extinguishers continued to be tested according to the appropriate standard. However, the same record keeping deficiencies that existed in 2019 persisted in documentation Jensen Hughes reviewed from 2020, 2022, and 2023.

Jensen Hughes has recommended repeatedly that DYRS maintain a complete inventory of fire extinguishers present at each facility and dates for each recording when the device was either tested or replaced.[54] There is no evidence that these inventories were maintained during the period Jensen Hughes reviewed or that fire extinguisher tests were checked against the inventories.[55] The report documents that at the YSC, during six fire extinguisher inspections between 2017 and 2023, the total number of devices inspected differed during five of the inspections.[56] Similarly, at New Beginnings, during six fire extinguisher inspections between

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[52] July 2020 Report at page 25.
[53] *Id.* at Ex. 1, page 5.
[54] See Attachment 2 at page 17 for the recommendation made in their January 2025 report.
[55] Jensen Hughes observed that beginning in 2022 DYRS's testing vendor began submitting maps indicating where extinguishes were tested. The authors note that, "[i]f DYRS intends to use a map to guide fire extinguisher inspections, they must ensure that every fire extinguisher in service or stored (e.g., in an inventory) at the facility is reflected on the map and tested consistent with NFPA standards. While a location-based guide inspections is acceptable, there must be some form of documentation that each *extinguisher* is inspected, as it is the extinguishers that are being inspected and not the locations (and extinguishers at a specific location can change over time)." *Id.*
[56] *Id.* at page 16.

2017 and 2023, the total number of devices inspected was different each time.[57] While these totals may have reflected the number of fire extinguishers in the facility accurately at the time of the tests, in the absence of a complete inventory at the time of inspection there is no way to ensure that the inspection activities was comprehensive and met the appropriate NFPA standard.

According to DYRS staff, fire extinguisher inspections stopped in July 2024 and, after a seven-month hiatus, fire extinguisher inspections resumed on March 25, 2025. DYRS must continue ITM testing uninterrupted, consistent with NFPA standards.

D. Inspection, Testing, and Maintenance of Emergency Generators

Backup generators are critical fire and life safety systems in secure facilities. During a power outage, fire detection and suppressions systems may stop operating. Furthermore, electrical locking systems stop functioning, rendering remote locking systems inoperable, requiring staff to unlock doors manually to facilitate an evacuation, a more time-consuming process which, if smoke is present, can be made more difficult by limited visibility in smoky conditions. Additionally, in a multi-story building like the YSC (which has two occupied floors on the secure side of the facility above the water-intake level at the facility), water-based fire suppression systems rely on onsite pumps to provide sufficient water pressure on higher floors for the sprinkler system to function. In the absence of power, the pump system will not function and the water suppression system will not operate. Thus, in the event of a primary power outage (*i.e.,* power provided by the electrical utility company), emergency generators serve as a critical backup source of power during a fire emergency.

Because emergency generators are not often used on a routine basis, it is critical that they be tested routinely in accordance with industry standards to ensure they operate when they are

[57] *Id.* at page 17.

needed. As detailed below, DYRS has a history of not testing generators consistent with NFPA standards; however, in subsequent years the agency developed a program that appropriately tested generators.

In 2004, when DYRS only operated Oak Hill, Tom Jaeger noted that "[f]or all practical purposes, there has been no maintenance and testing of the fire protection systems at the Oak Hill Facility;"[58] but over the course of years, DYRS developed a testing program that did meet testing standards. In a 2014 report, Mr. Jaeger found that while DYRS had enlisted contractors to conduct generator testing at the YSC and New Beginnings, there were significant limitations in contract requirements and, critically, he noted that DYRS was in fact testing its generators at the YSC in a manner that was proscribed by NFPA standards that could potentially damage the generators.[59] In 2018, Jensen Hughes reviewed DYRS's generator testing practices and found that at the YSC, the generator was being tested according to NFPA standards; however, they found that relatively newly installed generators at New Beginnings[60] were largely subject to automated testing overseen by contractors and that based on the documentation of the automated testing, it was not possible to assess whether the generators were tested according to NFPA standards. Ultimately, in a subsequent 2020 review, Jensen Hughes found that testing reports from the prior year indicated that generator testing at both facilities met appropriate NFPA standards.[61]

Since their 2020 assessment, Jensen Hughes reviewed a sample of monthly generator reports from both the YSC and New Beginnings from the period 2020 to 2023. They found that generally "[a]n acceptable level of inspection and testing activities [was] being performed to

[58] March 2015 Report at Ex. 1, page 9.
[59] *Id.* at App B, Ex. 1, page 24.
[60] DYRS installed two new generators at New Beginnings in 2016.
[61] July 2020 Report at Ex. 1, page 6.

identify issues on the fire protection aspects of the emergency generators at the YSC and NB."[62] At both facilities, generators were tested monthly, and issues were identified and documented. Importantly, however, Jensen Hughes found that identified and documented generator problems at both facilities were allowed to continue unabated apparently over several months.[63] Critically, two of the three generators at New Beginnings were documented as not working and disabled from at least January through June 2023.[64] DYRS staff also reported that one of the these two generators, which services the non-secure administrative side of the facility, including the warehouse, has not been functional for at least three years. That part of the facility is in the same building as parts of the secure facility, including the Control Center, Culinary, and the school, but those portions of the building are not powered by the non-functional generator.

OIJJFO staff reviewed all deficiencies that were identified in the sample of 2023 ITM reports reviewed by Jensen Hughes from the YSC and New Beginnings. There were eight deficiencies identified in the sample related to generators, two at the YSC and six at New Beginnings.[65] The deficiencies at New Beginnings were related to the three generators at the facility.[66] One of the generators, which services the housing units, Control Center, school, and Culinary area, was reported to need new batteries; documentation indicates that the work order was placed 64 days after the inspection report and repair was completed 245 days after the report was issued. A second generator, which services the non-secure administrative side of a building and the warehouse, was noted as having a variety of issues, including needing new batteries and

[62] Attachment 2 at page 19. They did, however, identify specific instances in which monthly tests were not clear regarding whether certain tests were conducted (*e.g.* transfer switch testing). *Id.* at page 18.
[63] *Id*. at page 19.
[64] One of the two generators existed as a back-up generator and is recorded as the "shop" generator. It does not service the housing units or administrative building and DYRS staff reported that it is obsolete.
[65] Three of the issues at New Beginnings were cited in multiple months, January and June 2023, because they were never resolved.
[66] As noted above, one of these generators previously served as a back-up generator but DYRS reports that it is now obsolete.

a new wiring harness, and the ITM report noted "unit disabled due to needed repairs" and "inoperable." A work order for the batteries and wiring was placed 64 days after the inspection report and it notes, "1. The Load Test could not be performed on Generator #2 because THE UNIT IS INOPERABLE (caution). 2. The generator was disabled due to the repairs needed to be performed." The deficiencies related to the batteries were not corrected until 245 days after the ITM report was issued and the wiring harness, 364 days after the report was issued.[67] Documentation does not indicate that this generator was ultimately fixed. DYRS staff report that this generator has been inoperable for at least three years, and that the agency has participated in recent meetings with the Department of General Services (DGS) regarding the generator. A contractor has reportedly been to the facility multiple times in late February and March 2025 to try to address any remaining issues, but as of the issuance of this report, the generator remains inoperable. The third generator, which does not serve the housing units or the administrative building, was noted as in a "fail" status and "unit down," and in need of a new control panel.[68] The issues with this generator were identified but not corrected over multiple inspections and DYRS was not able to provide OIJJFO with documentation showing that the deficiency has been abated as of this report.

At the YSC, there were two ITM reports documenting deficiencies with generators in the 2023 sample.[69] Documentation regarding remediation of the issues indicates that the work orders for these deficiencies took between 28 and 104 days from the issuance of the ITM report to be submitted, and the repairs took between 28 and 104 days from the issuance of the report to be completed (*i.e.,* on the days that the work orders were submitted).

[67] DYRS indicated the wiring harness repair took so long because of a delay in receiving the parts needed due to supply chain challenges.
[68] As noted above, this generator does not service the housing units or administrative building.
[69] The deficiencies were reported as having low coolant temperature, needing an air filter, and leaking fuel pump.

In its comments on the draft version of this report, DYRS states that "DGS is collaborating with DYRS on maintenance and replacement of the generators at both facilities."[70] However, DYRS representatives have informed OIJJFO staff that these replacement projects are not yet fully funded.

E. Inspection, Testing, and Maintenance of HVAC Systems

Heating, Ventilation, and Air Conditioning (HVAC) systems are relevant to fire safety because smoke can spread within a building through the ductwork system. Modern HVAC systems can have smoke detectors installed within them and dampers interconnected to the fire alarm system to stop the flow of air – and smoke – through the ducts in the event of a fire alarm.

In their 2018 and 2020 assessments, Jensen Hughes found that smoke detectors in ducts at the YSC and New Beginnings were tested, but that smoke dampers at the time were either inaccessible or missing.[71] Since their last assessment, Jensen Hughes reviewed a sample of monthly reports from both the YSC and New Beginnings from 2020 to 2023, noting that DYRS changed its testing contractors in mid-2021.

At the YSC, Jensen Hughes found that while there was evidence that duct detectors were tested since 2020, the number of detectors tested varied from one year to the next, again calling into question the completeness of the fire alarm system testing.[72] At New Beginnings, Jensen Hughes documented that in 2019, it appeared that duct detectors were tested during annual fire alarm testing.[73] However, Jensen Hughes subsequently found no documentation of duct detector

[70] Attachment 1 at page 3.
[71] December 2018 Report at Ex. 2, page 28 and July 2020 Report at Ex. 1, pages 7-8.
[72] Attachment 2 at pages 20-21. The 2022 ITM report indicates there were five duct detectors installed at the facility whereas the 2023 ITM report indicates there were 10 duct detectors at the facility.
[73] July 2020 Report at Ex. 1, page 7.

testing in 2022 and that only two duct detectors were tested in 2023,[74] indicating that duct detector testing was no longer complete.

Incomplete and inaccurate accounting of the location, number, and testing of the automatic shutdown of fire dampers in the HVAC systems at the YSC and New Beginnings is a long-standing issue. In their 2018 assessment, Jensen Hughes could not find evidence that damper testing was conducted.[75] In their 2020 assessment, Jensen Hughes documented that a DYRS contractor performed an inspection and tested dampers at both facilities in 2019, identifying 90 dampers at New Beginnings and 215 dampers at the YSC.[76] At both facilities, deficiencies were identified, but there was no documentation regarding whether and/or how those deficiencies were addressed.

In fall 2024, DYRS engaged a different contractor to conduct damper testing at both facilities. Testing documentation performed by this contractor identified numerous dampers at both facilities that were not included in the testing conducted in 2019, but which were required to be tested according to NFPA standards.[77]

DYRS has reported that DGS has assumed responsibility for managing contractual repairs to dampers at the YSC and New Beginnings and that repairs and providing access to dampers in both facilities were estimated to cost $1.5 million. Additionally, DYRS has reported

[74] Attachment 2 at page 22.
[75] December 2018 Report at Ex. 2, page 28.
[76] July 2020 Report at Ex. 1, page 7. Jensen Hughes documented that in the 2019 report at New Beginnings "24 fire dampers failed because they were inaccessible, 49 dampers failed due to lack of an access door, and 2 fire dampers failed due to the access door being too small" and at the YSC "a total of 215 fire dampers were inspected and tested as part of a 4-year inspection interval. Twelve fire dampers failed because they were inaccessible, 3 fire dampers failed due to improper closing, and 45 fire dampers failed because they were missing or not installed in the plane of the wall. No documentation was received indicating how these issues were resolved." Attachment 2 at pages 22-23.
[77] During the 2024 testing, 134 of 215 dampers tested at the YSC failed, or 62 percent, and at New Beginnings 64 of 94 dampers tested failed, or 68 percent.

that during fiscal year 2025 DYRS has $700,000 for the capital improvement, which will be used for YSC improvements, and are scheduled to start in March 2025.

F. Inspection, Testing, and Maintenance of Electric and Remote Locking Systems

In the event of a fire in a secure facility, staff must be able to open locked doors, including cell doors and sallyport doors, to enable building occupants to evacuate, if indicated.[78] In the event that a fire (or other event) disables both the primary and backup power systems (*i.e.,* generators), staff must be able to unlock doors manually, using keys, which they should be able to identify by touch in case visibility is low due to darkness and/or the presence of smoke.

In recent years, DYRS has demonstrated an ongoing capacity to perform these tests using its own staff. In their 2018 and 2020 assessments Jensen Hughes documented that staff tested and documented monthly electronic and manual testing of facility doors. For their most recent assessment, Jensen Hughes reviewed a sample of monthly forms from 2020 through 2023 and found that DYRS continued to perform inspection, testing, and maintenance of locks consistent with NFPA requirements.[79]

The forms DYRS staff use to document lock tests records the month of each test, but not a specific date each lock was tested. In both their 2018 and 2020 reports, Jensen Hughes recommended that a date field be added to the form to ensure that no more than four weeks elapsed between lock tests. That recommendation had not been implemented in the documentation that Jensen Hughes reviewed.

[78] *See* page 7, above. In some instances, sheltering in place is the proper response at the YSC.
[79] Attachment 2 at page 24.

There were no identified lock deficiencies in 2023 in the sample of documentation reviewed by Jensen Hughes. DYRS continues to test locks each month and maintains contracts with the company that provides and services locks to the agency.

G. Inspection, Testing, and Maintenance of Extinguishing Systems for Range, Hood, and Duct Systems in the Kitchen

Kitchens pose heightened fire risks in facilities because, by design, they include the use of flames on gas ranges in combination with highly combustible materials, including cooking oils, and the presence of other fuels that could cause a fire to grow and spread, once ignited. To mitigate the risk of kitchen fires, NFPA establishes specific standards for the inspection, testing, and maintenance of fire extinguishing systems for range, hood, and duct systems in kitchens.

In their 2020 review, Jensen Hughes found that DYRS contractors were performing ITM on the fire suppression system in the kitchen, but were not appropriately cleaning the hood and ductwork, where flammable materials can accumulate over time.[80] To conduct its more recent assessment, Jensen Hughes reviewed a sample of documentation from 2020 to 2023. DYRS changed the contractors it used to conduct ITM of implicated systems in kitchens in 2020 and again in mid-2021. Jensen Hughes found that based on their review of ITM documentation, DYRS was meeting applicable ITM requirements for range, hoods, and ducts.[81]

OIJJFO staff reviewed all deficiencies identified in the sample of ITM reports reviewed by Jensen Hughes at the YSC and New Beginnings from 2023. There were three deficiencies in the sample related to the systems in the kitchens, two at the YSC and one at New Beginnings. Documentation pertaining to the deficiencies at the YSC[82] indicate that the work orders were

[80] July 2020 Report at Ex. 1, pages 8-9.
[81] Attachment 2 at page 25.
[82] At the YSC, inspectors documented that skillet needing to be re-piped and that there was an electrical issue related to a fan.

issued 83 days after the issuance of the ITM report and repairs took 221 days from the issuance of the ITM report to be completed. Documentation pertaining to the issue at New Beginnings[83] indicates that the work order was issued 83 days after the ITM report was issued and the repair was completed 171 days after the issuance of the ITM report.

According to DYRS staff testing stopped in July 2024 and has not resumed as of March 2025. DYRS must restart ITM testing consistent with NFPA standards.

V. CONCLUSION

Over the approximately 20-year period since the first comprehensive assessment of fire safety at DYRS's secure facilities was conducted, DYRS built a capacity to inspect, test, and maintain its modernized fire safety systems. That process required drafting facility-specific fire safety plans for the first time, developing ITM forms consistent with appropriate NFPA standards, and engaging contractors with appropriate credentials and expertise. This was a decades-long process, and ultimately, by 2020, near the end of the Jerry M. litigation, DYRS had established an ITM program largely consistent with standards and legal requirements. At that time, the Special Arbiter noted that "[i]n light of the historic concerns regarding the adequacy of the contractual services procured by DYRS in this area, these inspection, testing and maintenance services will require ongoing review and scrutiny."[84]

Between the Special Arbiter's 2020 report and mid-2024, DYRS continued to maintain fire safety contracts that were consistent with relevant fire safety standards. During that period, DYRS changed contractors twice, once in 2020 and thereafter in 2021, and routine inspections

[83] At New Beginnings, documentation indicates that the inspection failed because it needed "additional coverage" in the form of another wet chemical tank.
[84] July 2020 Report at page 32.

continued. Jensen Hughes noted qualitative differences in the documentation produced by the contractors who performed the inspections, an historical issue during the duration of Jerry M.

DYRS continued to maintain some ITM consistent with certain standards, including electric and remote locking systems, extinguisher systems for range, hood, and ducts, wet chemical for extinguishers, among others. In other cases, documentation did not establish whether ITM was wholly consistent with applicable standards, including, but not limited to, ITM of the fire alarm systems, fire suppression systems, and emergency generators.

This review found, however, that there are significant issues regarding DYRS's remediation of documented problems with fire safety systems. For example, notwithstanding repeated documentation of problems with the fire alarm system at the YSC, including documentation that the fire alarm panel was "condemned," neither DYRS staff nor the contractor who conducted the testing could say definitively whether or what parts of the fire detection systems functioned properly. At New Beginnings, documented problems with the generators went uncorrected for months, and a generator that services the non-secure administrative side of a building and the warehouse has gone unrepaired reportedly for at least three years. Work orders were not issued for months after deficiencies were documented in fire alarm systems, water suppression systems, HVAC systems and kitchens at both the YSC and New Beginnings, and additional months for the repairs to be made.

Of greatest concern is that starting in mid-2024, contractual services for ITM of fire safety issues at both facilities ceased altogether. Between July 2024 and February 2025, no inspections were conducted. Testing of fire alarm and water-based fire suppression systems started again in March 2025; however, permanent contracts for testing of all fire safety systems

still are not in effect. In their comments on the draft version of this report, DYRS indicated that they expect to have them in place by June 2025.[85]

After significant progress developing an ITM program developed over many years, DYRS's progress is backsliding. Contracts for ITM services consistent with applicable standards must be executed, DYRS must monitor and verify the completeness of the testing, and identified deficiencies should be resolved in a timeframe consistent with the significance of the identified problem.

VI. SUMMARY OF RECOMMENDATIONS

<u>Recommendation 1</u>: Ensure fire safety contracts consistent with NFPA standards are put in place immediately and maintained without gaps between contracts.

> **Discussion:** DYRS's fire safety contracts lapsed in mid-2024 and no ITM was performed for at least seven months while known problems existed with certain fire safety systems. DYRS must ensure that new contracts are put into effect and that those contracts are consistent with NFPA standards adopted in Title 12 of the DCMR. As documented in the 2004 baseline fire safety assessment and a subsequent assessment in 2014, DYRS had a history of contracts that were not explicit about what testing needed to be conducted and what standards were required to be used. Any new contracts must meet the testing requirements set forth in NFPA standards. Furthermore, Jensen Hughes has documented that over time, the inspection reports generated by contractors were not all of the same quality. Some did not include specific enough detail to make a determination regarding whether all fire safety apparatus was in fact inspected. DYRS must ensure that documentation produced by its contractors is both complete and specific enough to identify exactly where any deficiencies exist.

In their comments on the draft version of this report, DYRS stated it would complete the following actions by June 2025:

> DYRS acknowledges the inconsistencies in fire safety contracts resulting in ITM procedural gaps at the conclusion of the Jerry M. lawsuit. DYRS is coordinating with DGS to implement corrective actions to ensure all future contracts align with NFPA standards as outlined in Title 12 of the DCMR. The DGS team is actively securing contracts that include explicit testing and compliance details. Additionally, all contractor reports will be standardized and reviewed

[85] Attachment 1 at page 2.

for completeness, ensuring full documentation of system inspections and deficiencies and on file at DYRS and DGS.[86]

<u>Recommendation 2</u>: Maintain complete and accurate inventories of all fire safety equipment to ensure that ITM contractors perform complete testing. These inventories should include fire alarm devices, fire extinguisher devices, and fire dampers.

Discussion: As this assessment documents, there is a persistent and uncorrected history of inconsistencies in the number of devices tested in DYRS's two facilities. To ensure that the testing ITM contractors conduct is complete, DYRS must maintain its own complete and accurate inventories of the number of fire safety devices at each facility, which should be updated over time as devices are added or removed from the system. If there are discrepancies in the number of devices that are tested between tests, DYRS should ensure that those discrepancies are either explained or addressed.

In their comments on the draft version of this report, DYRS stated that it would complete the following actions by August 2025:

> DYRS has initiated an internal audit to develop a comprehensive inventory of fire safety devices across both facilities. This includes fire alarms, extinguishers, and dampers. A digital tracking system is being explored to update device quantities and services, ensuring accuracy and consistency in future ITM assessments. Moving forward, all inventory records will be reconciled before and after each scheduled ITM procedure to address discrepancies promptly.[87]

<u>Recommendation 3</u>: Archive documentation of remediation efforts with the ITM documentation.

Discussion: Jensen Hughes recommended that DYRS store copies of any remedial work performed to correct identified deficiencies together with the inspection reports identifying the deficiencies. This could be particularly helpful if staff and/or vendors change and records of any past remedial work needed to be produced.

In their comments on the draft version of this report, DYRS stated that it would complete the following actions by August 2025:

> All corrective actions undertaken to address identified deficiencies will be archived and ITM documentation will be filed within DYRS' Risk Management Office. A dedicated digital repository will be created, ensuring accessibility for internal staff and vendors. This will provide

[86] *Id*.
[87] *Id*.

historical tracking of system deficiencies and remediation efforts, which will be particularly beneficial during staff or vendor changes.[88]

<u>Recommendation 4</u>: Review and update fire safety inspection forms to ensure consistency with District-adopted standards, which can change over time, and to eliminate any unnecessary information.

Discussion: Fire safety inspections and testing result in significant amounts of documentation. DYRS's contractors utilize their own, company-developed forms, and DYRS uses forms that the agency developed to guide inspections. The specific forms that are used are less important than ensuring that whatever forms are used document clearly and completely what tests were conducted, the standard that was used, what devices were tested, the specific results of each device test. DYRS's forms were developed over time and include references to specific editions of NFPA standards, which, as noted above, can change over time.

DYRS should review agency forms to ensure that they are consistent with the current applicable requirements of Title 12 of the DCMR. Furthermore, Jensen Hughes identified at least one form that included items not directly related to fire safety which could be eliminated or, at a minimum, clarified so that fire safety inspectors would know what was expected of them.[89]

In their comments on the draft version of this report, DYRS stated that it would complete the following actions by September 2025:

A review of all fire safety inspection forms is underway to ensure alignment with current District-adopted standards. The new forms will:

- Eliminate outdated references to past NFPA editions
- Ensure all essential test results, device details, and standards used are documented
- Remove any irrelevant or non-fire safety-related items to streamline the process
- DYRS will coordinate with contractors to standardize reporting formats, ensuring clarity and uniformity across inspections.[90]

<u>Recommendation 5</u>: Ensure that identified deficiencies are deemed to be critical life-safety matters and treated as urgent matters for purposes of timely remediation.

Discussion: As documented in this assessment, numerous identified deficiencies were not remediated timely. In the case of the fire alarm system at the YSC, neither contractors nor staff could say with any certainty that the system was

[88] *Id.*
[89] *Id.*
[90] *Id.* at page 3.

functional. In other cases, such problems with generators at New Beginnings, work orders for identified problems were not issued and problems were not resolved for months, or not at all. While not all identified fire safety issues are equally urgent, the risk of each identified problem should be assessed immediately and responded to with the appropriate urgency.

In their comments on the draft version of this report, DYRS stated that it would implement the following actions by May 2025:

> To address the delays in deficiency remediation, DYRS is implementing a rapid response categorization system for fire safety issues. The following will be implemented in the categorization:
>
> - The new contract with DC Fire Life Safety, LLC requires the vendor to both inspect and remediate any deficiencies identified
> - Critical Life Safety Issues will be assigned the highest priority
> - Non-Critical Issues will have designated timelines based on risk assessment
> - This system will be integrated into the work order process to prevent extended delays
> - Additionally, a monthly compliance review will be conducted to track resolution timelines
> - Documentation of issues will be tracked in the central repository
> - DGS is collaborating with DYRS on maintenance and replacement of the generators at both facilities[91]

<u>Recommendation 6</u>: Install an NCC with a graphical user interface as part of the planned YSC fire alarm replacement.

Discussion: As recommended by Jensen Hughes in their 2024 fire alarm test report, DYRS should install an NCC with a graphical user interface in the Control Cener. Control Center staff are responsible for directing the movement of YSC building occupants in the event of a fire. As a shelter in place facility, knowing the location of the fire is a precondition to coordinating a safe evacuation response. An NCC would communicate the location of a fire in the building much more readily than the current fire panel in the YSC.

DYRS elected not to implement this recommendation. In their comments on the draft version of this report, DYRS stated the following:

> During the construction phase of the YSC front lobby, DYRS relocated the front lobby, temporarily shifting control center operations. As a safety measure, DYRS utilized two-way communications (walkie-talkie) and deployed staff on foot patrol to monitor, identify, and report potential fire and life safety hazards. As

[91] *Id.*

> of September 2024, the Control Center reopened in the 1st floor lobby and has the ability to monitor the facility visually (cameras) and utilize two-way communications (walkie-talkie) to notify of fire and life safety hazards.[92]

NFPA standards do not require NCCs as part of fire detection and reporting systems and DYRS is not required to install one. Facilities that are staffed around the clock mitigate the risk of a fire spreading undetected. Nevertheless, a fire could occur at the YSC in a location where there are neither staff nor cameras present, in which case Control Center staff would have to rely exclusively on information reported on the control panel. Assuming the control panel is functioning properly, this is a viable option. An NCC, however, would provide location-based information about a fire more rapidly than a text-based system during a time-sensitive event.

[92] *Id.* at page 4.

Attachment 1

GOVERNMENT OF THE DISTRICT OF COLUMBIA

DEPARTMENT OF YOUTH REHABILITATION SERVICES

Office of the Director – 450 H Street NW Washington DC 20001

March 24, 2025

To: Mark Jordan, Executive Director

From: Sam Abed, Director

RE: Inspection, Testing, and Maintenance (ITM) of Fire and Life Safety Systems at the Youth Services Center and New Beginnings Youth Development Center

I. Summary

This summary is in response to the report provided by the Office of Independent Juvenile Justice Facilities Oversight (OIJJFO) regarding the inspection, testing, and maintenance (ITM) of fire and life safety systems at the Department of Youth Rehabilitation Services (DYRS) two secure facilities, the Youth Services Center (YSC) and the New Beginnings Youth Development Center (New Beginnings) between September 2020 and November 2023 with select updates through 2024. It is of note, that DYRS has exited the Jerry M. lawsuit and continues to collaborate with OIJJFO on post-lawsuit work plan goals.

It is also important to note that DYRS has consulted with the District of Columbia Fire and EMS Department to identify mandated standards for inspection and maintenance of fire detection and suppression systems. Fire detection and suppression system inspections are required annually. Annual inspections of all fire detection and suppression systems will be conducted moving forward.

The most recent fire safety inspection was conducted on March 11-13, 2025. This was completed less than one (1) year from the last inspection.

Fire and life safety systems are managed within the Office of the Chief Operating Officer, specifically within Property and Real Estate Management, under the Risk Management department. This office works in conjunction with the Department of General Services (DGS) to ensure collaboration of ongoing fire and life safety systems equipment, testing and maintenance occurs.

Risk Management Division provides onboarding training on various fire, life and safety techniques which include comprehensive understanding of DYRS facility evacuation plan, proper usage of facility fire extinguishers and understanding directional fire exit signs.

The DYRS training unit is coordinating with the Risk Management Division to administer a comprehensive fire, life and safety continuing education training to include resetting the fire alarm panel, understanding the kitchen hood fire suppression system, and resetting the sprinkler system once discharged. These trainings will provide valuable fire, life and safety skills to secure program staff.

Within this report, DYRS will outline action steps and goals in response to the recommendations provided by OIJJFO.

II. Response to Summary of Recommendations

Recommendation 1: Ensure fire safety contracts consistent with NFPA standards are put in place immediately and maintained without gaps between contracts.

DYRS Action Step (1):
DYRS acknowledges the inconsistencies in fire safety contracts resulting in ITM procedural gaps at the conclusion of the Jerry M. lawsuit. DYRS is coordinating with DGS to implement corrective actions to ensure all future contracts align with NFPA standards as outlined in Title 12 of the DCMR. The DGS team is actively securing contracts that include explicit testing and compliance details. Additionally, all contractor reports will be standardized and reviewed for completeness, ensuring full documentation of system inspections and deficiencies and on file at DYRS and DGS.

Implementation Goal 1	Responsible Party	Timeline
Fire Safety Contracts	DGS / DYRS	June 2025

Recommendation 2: Maintain complete and accurate inventory of all fire safety equipment to ensure that ITM contractors perform complete testing. These inventories should include fire alarm devices, fire extinguisher devices, and fire dampers.

DYRS Next Step (2):
DYRS has initiated an internal audit to develop a comprehensive inventory of fire safety devices across both facilities. This includes fire alarms, extinguishers, and dampers. A digital tracking system is being explored to update device quantities and services, ensuring accuracy and consistency in future ITM assessments. Moving forward, all inventory records will be reconciled before and after each scheduled ITM procedure to address discrepancies promptly.

Implementation Goal 2	Responsible Party	Timeline
Fire Safety Equipment Inventory (Internal Audit)	DYRS Risk Management Division	August 2025

Recommendation 3: Archive documentation of remediation efforts with the ITM documentation.

DYRS Action Step (3):
All corrective actions undertaken to address identified deficiencies will be archived and ITM documentation will be filed within DYRS' Risk Management Office. A dedicated digital repository will be created, ensuring accessibility for internal staff and vendors. This will provide historical tracking of system deficiencies and remediation efforts, which will be particularly beneficial during staff or vendor changes.

Implementation Goal 3	Responsible Party	Timeline

Remediation Documentation System (Digital Archive)	DYRS Risk Management Division	August 2025

Recommendation 4: Review and update fire safety inspection forms to ensure consistency with District-adopted standards, which can change over time, and to eliminate any unnecessary information.

DYRS Action Step (4):
A review of all fire safety inspection forms is underway to ensure alignment with current District-adopted standards. The new forms will:

- Eliminate outdated references to past NFPA editions
- Ensure all essential test results, device details, and standards used are documented
- Remove any irrelevant or non-fire safety-related items to streamline the process
- DYRS will coordinate with contractors to standardize reporting formats, ensuring clarity and uniformity across inspections

Implementation Goal 4	Responsible Party	Timeline
Inspection Form Updates	DYRS Risk Management Division	September 2025

Recommendation 5: Ensure that identified deficiencies are deemed to be critical life safety matters and treated as urgent matters for purposes of timely remediation.

DYRS Action Step (5):
To address the delays in deficiency remediation, DYRS is implementing a rapid response categorization system for fire safety issues. The following will be implemented in the categorization:

- The new contract with DC Fire Life Safety, LLC requires the vendor to both inspect and remediate any deficiencies identified
- Critical Life Safety Issues will be assigned the highest priority
- Non-Critical Issues will have designated timelines based on risk assessment
- This system will be integrated into the work order process to prevent extended delays
- Additionally, a monthly compliance review will be conducted to track resolution timelines
- Documentation of issues will be tracked in the central repository
- DGS is collaborating with DYRS on maintenance and replacement of the generators at both facilities

Implementation Goal 5	Responsible Party	Timeline
Deficiency Response Plan (Categorization and Tracking)	DYRS Risk Management Division	May 2025

Recommendation 6: Install an NCC with a graphical user interface as part of the planned YSC fire alarm replacement.

DYRS Action Step (6):

During the construction phase of the YSC front lobby, DYRS relocated the front lobby, temporarily shifting control center operations. As a safety measure, DYRS utilized two-way communications (walkie-talkie) and deployed staff on foot patrol to monitor, identify, and report potential fire and life safety hazards. As of September 2024, the Control Center reopened in the 1st floor lobby and has the ability to monitor the facility visually (cameras) and utilize two-way communications (walkie-talkie) to notify of fire and life safety hazards.

Implementation Goal 6	Responsible Party	Timeline
Reopen Control Center YSC	DYRS Property Management Team	Complete

III. Conclusion

As of March 11, 2025, the Youth Services Center and New Beginnings Youth Development Center have undergone annual fire alarm testing conducted by DC Fire Life Safety, LLC.

DYRS will continue to adopt this schedule as the cadence to testing in both facilities according to Department of General Services, Department of Buildings and Fire Emergency Medical Services practice guidance.

DYRS appreciates the thorough assessment provided in the fire and life safety report. The DYRS Risk Management team will continue to collaborate with the Department of General Services (DGS) and contractors on fire and life safety testing best practices to support the residents in our facilities. In addition, DYRS will develop an internal cadence for inspections aligning with NFPA best practices for facilities.

In addition, DYRS will continue to monitor and improve our safety measures through staff training and ongoing internal compliance reviews. Thank you for your guidance and support in helping us maintain a safe living environment for all residents and staff.

Attachment 2

JENSEN HUGHES

January 17, 2025 (revised)

Mr. Mark Jordan
Executive Director
Office of Independent Juvenile Justice Facilities Oversight
200 Massachusetts Avenue, NW, Suite 700
Washington, DC 20001

RE: Youth Services Center and New Beginnings
Inspection, Testing, and Maintenance Assessment
D.C. Department of Youth Rehabilitation Services

Dear Mr. Jordan,

Jensen Hughes (JH) has been engaged by your office to provide consultative services related to the Inspection, Testing, and Maintenance (ITM) requirements for the fire and life safety systems at the Department of Youth Rehabilitation Services (DYRS) facilities. We evaluated a sample of the ITM documentation created between September 2020 and March 2022 for the Youth Services Center (YSC) and the New Beginnings Youth Development Center (NB) and subsequently compared those findings with a sample of ITM documentation from calendar year 2023. The results of our analysis are provided in this letter report.

1.0 Qualifications

Since 1939, JH has dedicated ourselves to fire protection engineering, initially in the United States and now worldwide. Our 1,500+ engineers, consultants, analysts, and strategists provide a range of services across all markets — from government, healthcare, science and technology to energy, mission critical and transportation. Services include fire protection, accessibility consulting, risk and hazard analysis, forensic investigations, security risk consulting, emergency management, digital solutions, among many others

The project team includes Eric Rosenbaum, PE and Erik Anderson, PE. Eric Rosenbaum is a Vice President at JH and a Fellow of the Society of Fire Protection Engineers, a past member of the Board of Directors of the National Fire Protection Association (NFPA) and a registered Professional Engineer in 11 states and the District of Columbia. As a member of the NFPA, Eric chaired the NFPA 101, *Life Safety Code*, Technical Committee on fire protection features for nine years. Eric Rosenbaum has over 30 years of experience in fire protection and in the field of fire/life safety in detention and correction occupancies.

Erik Anderson is a Market Leader at JH with 25 years of experience in fire protection engineering. He is a registered Professional Engineer in 10 states. His primary focus is fire protection system design, commissioning, and building code and life safety code consulting. His fire protection engineering experience covers a wide range of facility and system types, including detention and correctional occupancies.

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2.0 Purpose

Consistent with our discussions, JH performed the evaluation of the ITM of fire protection systems and equipment in accordance with the District of Columbia required applicable codes at the YSC and NB. This assessment is based on a review of ITM reports from the YSC and NB provided by your office and the results of previous analyses by JH. The results of previous analysis are contained in JH developed assessments dated July 27, 2018 and July 10, 2020.

3.0 Approach

Jensen Hughes reviewed a variety of ITM documents provided electronically by the Office of Independent Juvenile Justice Facilities Oversight (OIJJFO). The ITM documents were provided to us in PDF format in May 2022, July 2022, August 2022, and May 2024. Our opinions are based on a review and analysis of the posted documents which are listed in Appendix A of this report.

Our evaluation included the following:

- Determining if the documentation provided by OIJJFO to JH for a sampling of months in 2022 and 2024 provides a basis for if the contractor meets the District of Columbia requirements for ITM including NFPA codes and standards.
- Determining if findings and recommendations related to ITM from JH's previous assessments at YSC and NB (dated July 27, 2018, and July 10, 2020) were addressed.
- An on-site test of the fire alarm system at the YSC in March 2024.
- Providing any additional findings and recommendations as determined.

Findings from the evaluation are identified by letters to indicate the type of fire protection system or equipment and a sequential number (e.g., Finding FA-1). The following limitations and assumptions apply to this analysis:

1. The analysis is based solely on the review of the sample of ITM test data made available to JH as provided by OIJJFO.
2. Witnessing the ITM performed or site visits were not included in the analysis. For example, a review of the following was not performed: procedures followed during ITM operations, the number or type of devices that exist, or checking fire extinguisher inspection tags.
3. Based on findings conducted during a review of fire alarm test results at the YSC, a site visit to the YSC was conducted on March 27, 2024 to witness the testing of the functionality of the fire alarm system at that facility. No other site visits were conducted since those discussed in our July 27, 2018 assessment.
4. The review only looks at ITM at the facilities. The evaluation of fire drills performed or the inspection program was not completed as in the previous assessments.

4.0 Codes and Standards Used

Several Codes and Standards apply to the ITM of fire protection systems and equipment. This analysis uses codes and standard in effect in the District of Columbia at the time of the ITM testing.[1] The District of Columbia (DC) Building Code, 2017 Edition is the applicable code in the District of Columbia. The DC Building Code is

[1] In our report issued July 2018, JH recommended that DYRS adopt the standards in effect in the District of Columbia at the time of testing.

based on the International Building Code, 2015 Edition (IBC) as amended by the District of Columbia Construction Codes Supplement of 2017 (DCMR 12A, Building Code Supplement). The following is a list of the editions of National Fire Protection Association (NFPA) standards that are referenced by the DCMR 12A (2017):

- NFPA 10 Standard for Portable Fire Extinguishers – 2013 Edition
- NFPA 17A Standard for West Chemical Extinguishment Systems – 2013 Edition
- NFPA 25 Standard for the Inspection, Testing & Maintenance of Water Based Fire Protection Systems – 2014 Edition
- NFPA 72 National Fire Alarm and Signaling Code – 2013 Edition
- NFPA 110 Standard for Emergency and Standby Power Systems – 2013 Edition
- The International Mechanical Code, 2015 edition for Ventilation – Kitchen Hood

5.0 Requirements for the ITM of the Fire Protection Systems and Equipment

DYRS is required to maintain all of the fire protection systems and equipment in accordance with the requirements of DCMR 12A. DCMR 12A criteria includes ensuring that ITM is performed by individuals with the appropriate technical expertise and knowledge of what the relevant NFPA codes require.

DYRS requires its contractors who perform ITM of fire protection systems and equipment to complete DYRS Contractor Forms that DYRS has developed. The DYRS Contractor Forms for all system types note what editions of the NFPA standards apply. Some editions referenced on the forms we reviewed were not the current reference edition in DCMR 12A as discussed in Section 4.0, Codes and Standards Used (Finding General-1) and are identified throughout Section 5 in this report.

In addition to the DYRS Contractor Forms, contractors may complete and submit their company's own ITM forms as supplemental documentation. Some of the company ITM forms supplied by the contractors referenced specific editions of NFPA standards that were used during ITM, while others did not.

5.1 FIRE ALARM

The fire alarm systems at NB and the YSC consist of panels and components intended to monitor and annunciate the status of fire alarm or supervisory signal initiating devices and to initiate the appropriate response to those signals.

The following sections of NFPA 72-2013 are applicable:

- Chapter 14 – Inspection, Testing, and Maintenance
- Table 14.3.1 Visual Inspection
- Table 14.4.3.2 Testing
- Table14/4/5 Testing Frequencies

To conduct the assessment, JH representatives reviewed a total of 14 ITM reports between September 2020 and March 2022 related to the fire alarm system, seven from the YSC and seven from NB, all of which were produced by DC Life Safety. JH representatives subsequently compared those reports to two reports for NB and two reports for YSC produced by DC Life Safety during calendar year 2023.

Over the review period, there were references on ITM documentation that were not consistent with the applicable requirement in DCMR 12A. As of 2023, the 2013 Edition of NFPA 72 is in effect per DCMR 12A. Between 2020 and 2021, these forms referenced varying editions of NFPA 72. The YSC Contractor Forms that were made available to JH and dated after mid-2021 referenced NFPA 72-2013 Edition. The NB Contractor Forms that were made available to JH referenced NFPA 72-2013 Edition except September 2020 and August 2021.

See Figure 5.1-1 for sample reference to NFPA 72-2010 Edition.

Figure 5-1.1 NFPA 72-2010 Reference from September 2020 Forms

DYRS CONTRACTOR FORM for REQUIRED INSPECTION, TESTING & MAINTENANCE of FIRE ALARM SYSTEMS

YOUTH SERVICES CTR.
SEPTEMBER 2020
MONTHLY INSPECTION

spection mponent	Periodic Frequency	Reference: NFPA 72 2010 Edition*	Pass	Fail	N/A	Test Results	Recommendations/Notes

Some code sections referenced on the DYRS Contractor Form and Inspection and Testing Forms are inconsistent with NFPA 72-2013 (i.e., the edition required by the DYRS contractor form), including the following examples:

- DYRS Contractor Form references Section 10.6.10 for battery inspections, but the correct reference in NFPA 72-2013 Edition is sections 14.3.1 and 14.4.2.2. For YSC and NB, the September 2020, March 2021, August 2021, and March 2022 (all monthly inspections) inspections referenced the incorrect section, however other inspections, including January 2022, referenced the correct section.
- The September 2020 DYRS Contractor Form for YSC and NB referenced Section 17 for initiating devices, but the correct reference in NFPA 72-2013 Edition is Table 14.4.

Additionally, the Inspection and Testing Forms for YSC and NB made available to JH in part reference editions of NFPA 72 earlier than the 2013 Edition. For example, the YSC and NB ITM forms for September 2020, March 2021, October 2021, and January 2022 and the YSC ITM form for March 2022 reference code sections from NFPA 72 editions earlier than the 2010 edition. As such, the March 2021, October 2021 and January 2022 Inspection and Testing Form for YSC and NB accompanying the DYRS Contractor for Required Inspection, Testing & Maintenance Form or DYRS Contractor Form references NFPA 72 Table 6.6.1 for Signaling Line Circuits. This section only exists in NFPA 72 editions prior to the 2010 edition.

A review of documentation from 2023 indicated that parts of the documents still reference editions of NFPA 72 earlier than the 2013 Edition so these issues remain.

Thus, the code references on some of the DYRS Contractor Form and Inspection and Testing Forms are incorrect and appear to reference sections of an older versions of the code. The ITM data available should be consistent for each type of test (e.g., monthly, quarterly, and annual) and test period. (Finding General-1). It is recommended that the code references on the DYRS Contractor Form and Inspection and Testing Form be

corrected; however, there are only minor technical differences between the prior editions and 2013 editions of NFPA 72 that would impact ITM work at YSC and NB. Minor technical differences in the 2013 edition include:

- Updated visual inspection table, adding new inspection methods for each component along with the inspection frequency.
- New requirement for creating a written test plan.
- Revised qualifications for inspection, testing, and service personnel.
- Only 2 ITM tables versus 3 ITM tables in the 2010 edition. The test methods and test frequency tables were combined into a single table.

The ITM data should be consistent for each test frequency (e.g., monthly, quarterly, and annual) and test period. At times the DYRS Contractor Form for Required Inspection, Testing & Maintenance is used and at other times the Contractors Guide form is used. Inspections performed prior to January 2022 used the DYRS Contractor for Required Inspection, Testing & Maintenance Form. As of 2023, the Contractor Guide form is being used.

However, a review of the ITM documents indicates that the testing appears to be conducted consistent with appropriate NFPA standards and issues are documented on the forms.

JH's July 27, 2018 assessment identified "inconsistencies in the numbers reported in the device reports." For example, the numbers in the TSG device reports for 2/5/2016 and 1/22/2018 do not correlate with the underlying, detailed test results provided in the same reports. JH recommended that, "DYRS should ensure that its fire safety device inventories at both facilities are up to date and accurate." JH's 2020 and 2024 assessments also identified that the number of devices at both facilities is inconsistent as an issue.

It appears these recommendations were not implemented. As of 2023, there were still inconsistencies in the device counts at the YSC and New Beginnings in ITM documentation by DC Life Safety based on the sample that was reviewed between September 2020 and July 2023 (Finding FA-1). Table 5.1-2 below depicts a comparison of device totals at the YSC in the quantity reported on DYRS inventory reported previously, the TSG 1/22/2018 fire alarm inspection of YSC, and the DC Life Safety 7/30/2021, 1/29/2022, and January 2023 reports. The table also includes device totals that JH extracted directly from the fire alarm system control panel programming during the fire alarm system testing at the facility in March 2024.

At the YSC, DC Life Safety data is different each year, with some variations of approximately 100% (48 smoke detectors vs 86 smoke detectors) as well as varying by approximately 30% (86 smoke detectors vs. 115 smoke detectors) from what the control panel indicates.

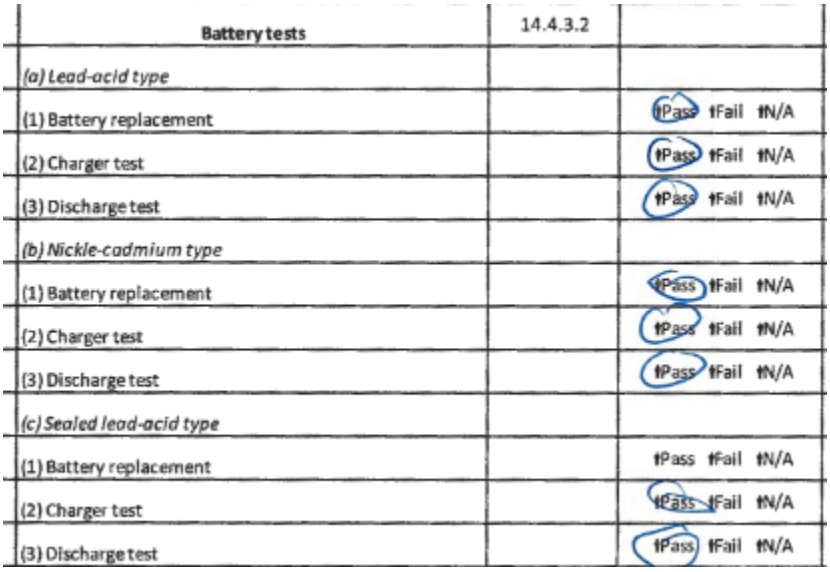
Table 5.1-2 Comparisons of YSC Device Numbers

Devices at YSC Listed on DYRS Inventory	*Quantity Reported on DYRS Inventory*	*TSG 1/22/2018*	*DC Life Safety 7/30/21*	*DC Life Safety 1/29/22*	*DC Life Safety 1/19/2023*	*Testing on 3/27/2024*
FACP	1	1		1	1	1
SD	90	91	48	61	86	115
Duct Detectors	3	3		5	10	13
Pull Stations	23	23	18	29	24	Could not determine
Visual units	107		50+ (Combination speaker strobe)	50+ (Combination speaker strobe)	100+	Could not determine
Batteries	10	2		Not Clear	Not Clear	2
Strobe lights	25		50+ (Combination speaker strobe)	50+ (Combination speaker strobe)	100+ (Combination speaker strobe)	Could not determine
Heat Detectors	0	0	8	3	2	4
Waterflow Switches				9	7	14

In Table 5.1-2, for 1/29/2022, the quantity of batteries is listed as “not clear” because the Inspection and Test Form did not explicitly identify the number of batteries and it identified a secondary power supply as Sealed Lead-Acid. The associated Contractor Guide identifies three different types of batteries that were tested: Lead-acid, Nickle-cadmium and Sealed lead-acid type. The sealed lead-acid type is consistent with other data for the building.

Figure 5.1-3 provides the data from the 1/29/2022 Contractor Guide for the YSC.

Figure 5.1-3 1/29/22 Contractor Guide Battery Tests

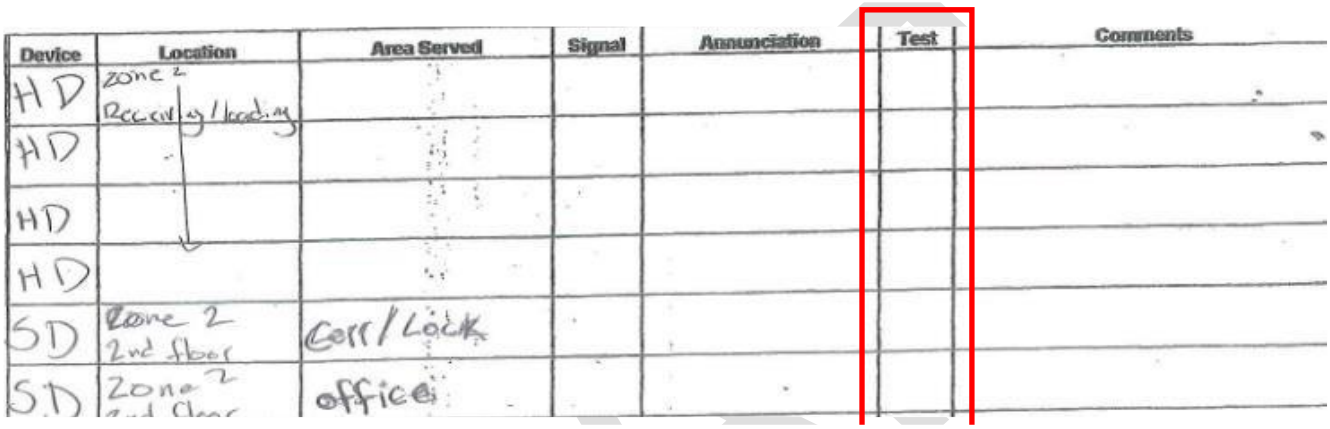


Battery tests	14.4.3.2	
(a) Lead-acid type		
(1) Battery replacement		†Pass †Fail †N/A
(2) Charger test		†Pass †Fail †N/A
(3) Discharge test		†Pass †Fail †N/A
(b) Nickle-cadmium type		
(1) Battery replacement		†Pass †Fail †N/A
(2) Charger test		†Pass †Fail †N/A
(3) Discharge test		†Pass †Fail †N/A
(c) Sealed lead-acid type		
(1) Battery replacement		†Pass †Fail †N/A
(2) Charger test		†Pass †Fail †N/A
(3) Discharge test		†Pass †Fail †N/A

In addition to device count inconsistencies between years, there are inconsistencies and a general lack of information in the information reviewed as provided by DC Life Safety (Finding FA-2). The YSC items identified included:

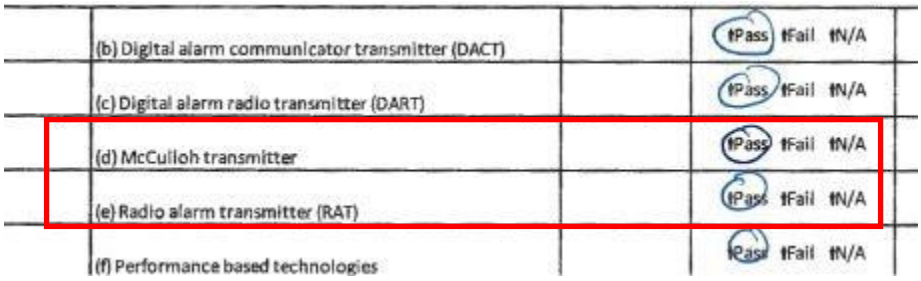
1. A devices list is not provided with the 1/29/2022 annual Fire Alarm Test at YSC.
2. The device list, when provided such as 7/30/21 at YSC, does not indicate if the device passed the test. Figure 5.1-4 provides an example of no data being provided for referenced 7/30/21 test results.
3. On the inspection forms, various types of devices are listed. Some devices are listed and identified as passing that do not exist in the system (Finding FA-3). As shown in Figure 5.1-5, devices are listed as passing tests, but do not actually exist at YSC, such as the McCulloh transmitter and radio alarm transmitter (RAT). Other examples that likely do not occur in the building but are identified as passing on some ITM documentation include:
    a. Fiber optic cable connectors
    b. Area of refuge two-way communication systems
    c. Room temperature switches
    d. Water temperature switches
    e. Carbon monoxide device/system
    f. Fire extinguisher monitoring device system

Figure 5.1-4 Example Device List YSC Without Test Results



Device	Location	Area Served	Signal	Annunciation	Test	Comments
HD	zone 2 Receiving/loading					
HD						
HD						
HD						
SD	Zone 2 2nd floor	Corr/Lock				
SD	Zone 2	offices				

Figure 5.1-5 Examples of Devices Listed as Tested that Likely Do Not Exist



	(b) Digital alarm communicator transmitter (DACT)		tPass tFail tN/A
	(c) Digital alarm radio transmitter (DART)		tPass tFail tN/A
	(d) McCulloh transmitter		tPass tFail tN/A
	(e) Radio alarm transmitter (RAT)		tPass tFail tN/A
	(f) Performance based technologies		tPass tFail tN/A

Similar results are reflected on the NB data provided. The following is a list of issues identified on ITM documentation from NB:

1. In inspection forms, some items are identified as passing that do not likely exist such as McCulloh and RAT.
2. Duct smoke detectors do not appear to be tested in July 2021 and January 2022.[2] However, duct smoke detectors do appear to be tested in 2023. See also Section 5.5, HVAC Systems, for further discussion (Finding FA-4).
3. The device counts for all fire alarm devices tested in the January 2022 and 2023 Annual Report Inspection and Testing Form do not correspond with the counts provided in the JH 2018 assessment or inventory list provided previously. The 2023 device count is also different by approximately 300% (52 smoke detectors vs. 16 smoke detectors) which appears reasonably without major system alterations which JH is not aware occurred. Table 5.1-6 summarizes the data.

[2] Evidence of testing of duct detectors is provided in TSG reports in 2016, 2017 and 2018.

Table 5.1-6 NB Device Comparison

Devices at NB Listed on DYRS Inventory	*Quantity Reported on DYRS Inventory*	*TSG 2/10/2016*	*TSG 2/20/2017*	*TSG 1/25/2018*	*DC Life Safety 7/30/21*	*DC Life Safety 1/27/22*	*DC Life Safety 1/18/23*
Edwards Fire ETS3	5						
Smoke detectors	68	68	68	70	49	52	16
Duct detectors	6	6	6	6		0	2
Digital communications	1						
Heat detectors	7	7	7	7	7	10	3
Pull stations	32	32	32	32[1]	29	24	9
Alarm Bells							
Audit [sic] visual units	156				75+	50+	
Audio only units	33						6
Batteries	32						
Strobe lights	156					50+	78
Annunciators	5						
TOTAL (Alarm Initiation Devices)	113	113	113	115		86	

There is no documentation that deficiencies identified during ITM or “troubles” on the fire alarm control panel are corrected, and the system is returned to a normal status (Finding FA-5). At both the YSC and NB sites, there is limited documentation showing resolution of issues identified or work orders in any of the ITM data. For example, at NB in March 2022, the battery is identified as needing to be replaced. In September 2020, at NB the monthly inspection identifies smoke detectors that are in a trouble condition. In April 2021, the technician’s comments upon arrival and departure at the YSC indicate adverse conditions for the fire alarm control panel. Figure 5.1-7 depicts the conditions identified upon arrival and departure from the YSC during a sprinkler inspection. These notes are included on the contractors proprietary ITM report. None of these issues are identified in the documentation as resolved. It is possible that separate documentation exists regarding how these issues were resolved (such as separate work orders), but if it does exist, it is apparently not archived with the ITM forms. It is recommended that documentation showing what corrective actions were taken be filed with the ITM forms.

Figure 5.1-7 Depiction of Trouble Conditions Upon Arrival and Departure from YSC

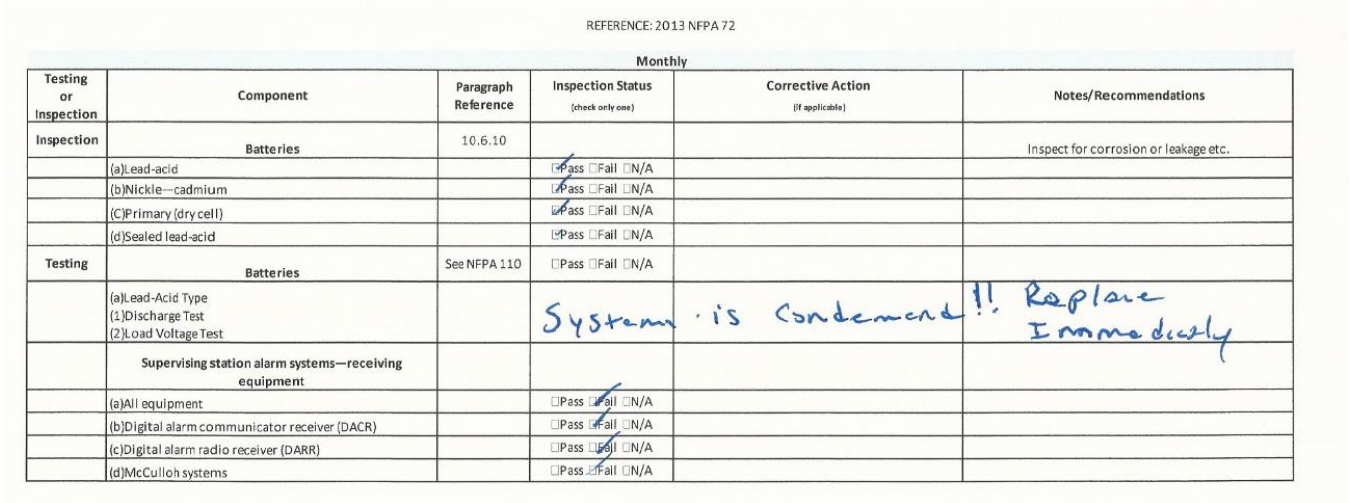
TECHNICIAN'S COMMENTS

Any known adverse conditions noted which existed prior to this inspection and test:	Issues regarding restoral, or conditions which preclude restoral of Fire Protection Equipment/System(s):
Upon Arrival/Departure Fire Control Panel In Trouble: -1-014 Generator Run -253 High Battery Voltage MXL Panel -253 AC Fail Or Brownout -Power Supply Trouble Room 11 Tr 1-2/60R Switch -Area 1 Mid-16 Input/Open	Upon Arrival/Departure Fire Control Panel In Trouble: -1-014 Generator Run -253 High Battery Voltage MXL Panel -253 AC Fail Or Brownout -Power Supply Trouble Room 11 Tr 1-2/60R Switch -Area 1 Mid-16 Input/Open

In January 2024, OIJJFO asked JH to review 2023 documentation of the testing of the YSC fire alarm system. Since approximately December 2022, the ITM vendor documented on fire alarm inspection forms indicate "panel condemned." This term is not commonly used in the fire alarm industry. On February 13, 2024, JH representatives participated in a phone call with representatives of OIJJFO, DYRS, and the vendor who performed the testing on the YSC fire alarm panel. Based on the call, the functionality of the YSC fire alarm system was still not apparent. OIJJFO, with DYRS's support, requested that JH perform a test of the fire alarm system, which was conducted on March 27, 2024 and the findings of that report were transmitted by OIJJFO to DYRS.

Subsequent conversations in 2024 with DC Life Safety clarified that the panel is no longer supported by the manufacturer due to age. The accompanying Contractor Guides in January and July 2023 were marked as "fail" for several component types. See Figure 5.1-8. The documentation provided to JH does not show that corrective action was taken in 2023.

Figure 5.1-8 Depiction of Fire Alarm Contractor Form for YSC on 7/11/2023



REFERENCE: 2013 NFPA 72

Monthly

Testing or Inspection	Component	Paragraph Reference	Inspection Status (check only one)	Corrective Action (if applicable)	Notes/Recommendations
Inspection	Batteries	10.6.10			Inspect for corrosion or leakage etc.
	(a)Lead-acid		☑Pass ☐Fail ☐N/A		
	(b)Nickle—cadmium		☑Pass ☐Fail ☐N/A		
	(C)Primary (dry cell)		☑Pass ☐Fail ☐N/A		
	(d)Sealed lead-acid		☑Pass ☐Fail ☐N/A		
Testing	Batteries	See NFPA 110	☐Pass ☐Fail ☐N/A		
	(a)Lead-Acid Type (1)Discharge Test (2)Load Voltage Test		System is Condemned	!! Replace Immediately	
	Supervising station alarm systems—receiving equipment				
	(a)All equipment		☐Pass ☑Fail ☐N/A		
	(b)Digital alarm communicator receiver (DACR)		☐Pass ☑Fail ☐N/A		
	(c)Digital alarm radio receiver (DARR)		☐Pass ☑Fail ☐N/A		
	(d)McCulloh systems		☐Pass ☑Fail ☐N/A		

For the reasons cited in this section (Finding FA-1 through Finding FA-5) the completeness of the ITM that was conducted at the YSC and NB could not be verified as compliant with the applicable codes. In addition, it is not evident whether all fire safety devices required to be tested in accordance with NFPA 72 were actually tested.

5.2 WATER-BASED FIRE PROTECTION SYSTEMS

The water-based fire protection systems at the YSC and NB include sprinkler systems; fire pumps (YSC only); backflow preventers; and valves, valve components, and riser trim. Separate ITM reports are provided for each of these four system type categories.

YSC:

- Backflow Preventer Reports
  - November 2021 report completed by DC Life Safety
  - April 2023 report completed by Fireline
- Fire Pump Reports
  - April 2021 report regarding fire pumps completed by VSC
  - Three months of inspection reports from 2023 completed by Fireline
- Sprinkler System Reports
  - Two reports (September 2020 and March 2021) produced by VSC
  - Four reports (between August 2021 and March 2022) produced by DC Life Safety / Fireline
  - Two months of reports from 2023 produced by DC Life Safety
- Reports Regarding Valves, Valve Components, and Trim
  - Two reports (between September 2020 and March 2021) produced by VSC
  - Four reports (between August 2021 and March 2022) produced by DC Life Safety / Fireline
  - Two months of reports from 2023 produced by Fireline

New Beginnings:

- Backflow Preventer Reports
  - November 2021 completed by DC Life Safety
  - April 2023 completed by Fireline
- Sprinkler System Reports
  - Two reports (September 2020 and March 2021) produced by VSC
  - Four reports (between August 2021 and March 2022) produced by DC Life Safety / Fireline
  - Two months of from 2023 produced by DC Life Safety
- Reports Regarding Valves, Valve Components, and Trim
  - Three reports (between September 2020 and March 2021) produced by VSC
  - Four reports (between August 2021 and March 2022) produced by DC Life Safety / Fireline
  - Two months of reports from 2023 produced by Fireline

The Contractor Guide for YSC and NB dated after March 2021 all reference NFPA 25-2014, which is the edition currently referenced by DCMR 12A. The YSC and NB DYRS Contractor Form for Required Inspection, Testing & Maintenance of Sprinkler Systems dated March 2021 and prior reference NFPA 25-2011 Edition. The ITM data

should be consistent for each type of test frequency (e.g., monthly, quarterly, and annual) and test period (Finding General-1). The following are forms reviewed that were utilized by the contractors:

- DYRS Contractor Form for Required Inspection, Testing & Maintenance of Sprinkler Systems;
- DYRS Contractor Form for Required Inspection, Testing & Maintenance of Valves, Valves Components and Trim;
- DYRS Contractor Form for Required Inspection, Testing & Maintenance of Fire Pump;
- DYRS Contractor Form for Required Inspection, Testing & Maintenance of Backflow Preventer;
- Contractors Guide – Sprinkler Systems Inspection Testing and Maintenance; and
- Contractors Guide – Valves, Valve Components, and Trim Inspection Testing and Maintenance

For Sprinkler System, Fire Pump, and Valve ITM, the DYRS Contractor Form for Required Inspection, Testing & Maintenance form was utilized for March 2021 and prior. The DYRS Contractor Guide was utilized for inspections performed after March 2021. Both forms contain similar information. The primary difference between the two forms is how the information is organized and formatted. Neither the DYRS Contractor Guide nor the DYRS Contractor form for Backflow Preventers has been used since 2021 (up to and including 2023). In this timeframe, the contractor's in-house forms were used.

The following sections of NFPA 25-2014 are applicable:

- Sprinkler Systems – Chapter 5 and Table 5.1.1.2 Summary of Inspection, Testing and Maintenance;
- Fire Pumps – Chapter 8 and Table 8.1.1.2 Summary of Fire Pump Inspection, Testing and Maintenance; and
- Valves, Valve Components and Trim-Chapter 13 and Table 13.1.1.2 Summary of Valves, Valve Components, and Trim Inspection, Testing, and Maintenance.

The ITM documentation reviewed was prepared by VSC Fire & Security, Inc. (VSC) prior to approximately August 2021, and DC Life Safety and Fireline after August 2021. The forms reviewed are complete and the ITM documentation submitted indicated that NFPA 25 was used for the ITM work performed.

With a few exceptions, the review of the documents for NB and YSC indicates that the ITM procedures are being conducted consistent with appropriate NFPA standards and issues that are identified are documented on the forms. A concern is that details on the forms completed by one of the vendors, DC Life Safety, are limited to aggregate notations indicating whether a device(s) passes or fails. The extent of ITM of the devices and the number of devices inspected or tested would be necessary to confirm that all ITM is being provided (Finding WFPS-1). For example, at NB and YSC in the January 2022, March 2022, and the 2023 documentation, there is no reference to which devices were inspected or what test was performed. Additionally, the August 2021 YSC ITM report completed by DC Life Safety documents the semi-annual sprinkler and valve inspection, but from the ITM report it cannot be determined what specific items were inspected and tested. In addition, it was indicated that outdated gauges were replaced, but the report was not clear which gauges were replaced and how many. Figure 5.2-1 depicts the information provided on the ITM documentation for August 2021.

Figure 5.2-1 YSC Contractors Guide 8/30/21

REFERENCE: 2014 NFPA 25

Monthly

Testing or Inspection	Component	Paragraph Reference	Inspection Status (check only one)	Corrective Action (if applicable)	Notes/Recommendations
Inspection	Gauges		Pass X Fail N/A	Replace Outdated gauges	
	Dry, Pre-action, and Deluge Systems	5.2.4.2, 5.2.4.3, 5.2.4.4	X Pass Fail N/A		
	Wet Pipe Systems	5.2.4.1	X Pass Fail N/A		
	Valve: - (All Types)	Table 13.1.1.2	X Pass Fail N/A		

A similar occurrence is documented in the October 2021 report for YSC. There were no findings pertaining to gauges in the 2023 documentation reviewed by JH. Information regarding what fire safety equipment has been repaired or replaced is critical to DYRS's ability to perform ongoing maintenance and repairs of the fire safety system. This is especially true if the agency changes contractors over time and the new contractor does not have access to the prior contractor's records.

The VSC ITM reports contained more detailed information. For example, the September 2020 and March 2021 forms for YSC and NB cite the number of valves tested and the results, which allowed us to evaluate the extent of the inspection.

An annual test is required for the fire pump at the YSC. There is no fire pump at NB. Documentation we reviewed for YSC identified an annual fire pump test during the period September 2020 to September 2023.

The ITM forms in April 2021 indicate that "due to inaccurate readings and unstable …gauges" data collection was limited. Figure 5.2-2 provides the comment from the inspector.

Figure 5.2-2 Inspector's Comment on Potential Fire Pump Test

During The Monthly Test And Inspection For The Fire Pump, Pump Numbers Will Not Be Collected Due To The Inaccurate Readings And Unstable The Gauges Are To Collect Correct Numbers. A 10 Minute No Flow Churn (Run) Has Been Conducted On The Day Of Inspection. The Jockey Upon Arrival Has Been Found Running And Was Only Able To Satisfy Pressure By Letting The Pump Run Its 10 Minute Churn. Conducted The Churn Test Again To Be Able To Collect Fire Pump And Jockey Pump Start And Stop Pressure. After The Churn The Fire And Jockey Pump Are Satisfied And Jockey Has Stopped Running.

At that time, it was not clear if an annual fire pump test was performed during the timeframe of documents reviewed. It was indicated to JH in an 08/01/2022 email from OIJJFO that an annual fire pump test was also performed in 2022.[3] We reviewed fire pump test results for March 2023, which indicate that fire pump testing is occurring, and the fire pumps are passing and have no deficiencies.

For NB and the YSC, older ITM reports, such as the September 2020 and January 2021 reports, specify a prior edition of NFPA 25 (2011) as applicable (Finding General-1). DCRA 12A references the NFPA 25-2014 Edition. The Contractor Forms should be updated with the correct code edition. However, this discrepancy should have limited, if any, impact on the ITM results.

[3] OIJJFO staff stated that DYRS provided documentation of an annual fire pump test was performed in April 2022.

Sprinkler inspection forms were provided for NB and the YSC for 2020, 2021, 2022, and 2023. A total of 18 months' worth of forms were reviewed. The ITM forms identify several items that are required to be performed on longer-term timeframes. None of these inspections are documented as occurring (Finding WFPS-2). The items identified as being required included:

1. 5-year hydrostatic test, internal inspection analysis of piping and valves, and gauge recalibration.
2. 10-year dry pipe sprinkler sample test.
3. 3-year inspection of pre-action system.

Figure 5.2-3 provides an example of the inspector's note regarding the 10-year dry pipe sprinkler test. It is unclear from the documentation in this example whether or not the 10-year dry sprinkler test was completed, and the sprinklers failed, or that the test was not completed so the items was marked as a "fail."[4]

Figure 5.2-3 Contractor's Guide YSC 1/28/2021

Item/Device	Frequency	Reference NFPA 25 2011 Edition	Pass	Fail	N/A	Test Results	Recommendations/Notes
Sprinklers	At 75 Years & Every 5 years thereafter	5.3.1.1.1.5			✓		
Sprinklers (Dry)	At 10 Years & Every 10 years thereafter	5.3.1.1.1.6		✓			Walk in Freezer and Cooler Dry Heads, Dve.

In February 2023, the annual sprinkler inspection occurred at YSC, the documentation from which Jensen Hughes did review. All checkboxes on the form were marked "pass" and no comments were made.

For the backflow preventers, we observed the following issues with the ITM documentation between 2021 and 2023:

- November 2021 – YSC - the report from Anytime Plumbing had no indication of pass or fail.
- November 2021 – NB - the report from Anytime Plumbing indicated "fail" but no reason was included.
- April 2023 – YSC - the report from Fireline shows five of the six backflow preventers marked "pass." One of the backflow preventers was marked neither "pass" or "fail."
- April 2023 – NB - the report from Fireline shows six of the nine backflow preventers marked "pass." Three of the backflow preventers were marked neither "pass" or "fail."

For any of the tests marked "fail," there was no work order or indication that the backflow preventer that failed the test was repaired (Finding WFPS-4). The 2023 test reports indicated that all backflow preventers passed. Finding WFPS-4 can be closed.

[4] The required 10-yeasr sprinkler test is complex. For example, it would require draining the systems pipes, removing a sample of sprinklers, plugging the outlets, and sending the sprinklers to a laboratory for testing. Documentation of a system that fails should be much more comprehensive and detailed. At best, this documentation is incomplete.

Where deficiencies are identified for water-based systems, there is limited documentation on the resolution, such as a work order to correct identified issues or resolve outstanding ITM items (Finding WFPS-5). For example, the January 2021 ITM reports identify that at NB the Fire Department Connection (FDC) in the back of the Art room and other location fails because they couldn't flow water due to cold temperatures outside. At the YSC, the requirement to have spare sprinklers and appropriate wrenches is shown as failing. There is no documentation of the FDC being tested or the spare sprinklers and wrenches being provided subsequently. There are more examples of problems identified with no resolution documented. An example of the need for repair documentation of deficiencies identified was for the repair of the jockey pump identified at YSC in August 2021 as seen in Figure 5.2-6. A jockey pump issue was identified in April 2021 as depicted in Figure 5.2-5. If the issue wasn't repaired until August and was identified 4 months prior in April, this extended length of time required for the repair is an item of concern. More recently, in August 2023, two valves at YSC were reported as being shut off on the Valves, Valve Components, and Trim form, but there was no resolution documented.

Figure 5.2-5 YSC Jockey Pump Deficient Note April 2021

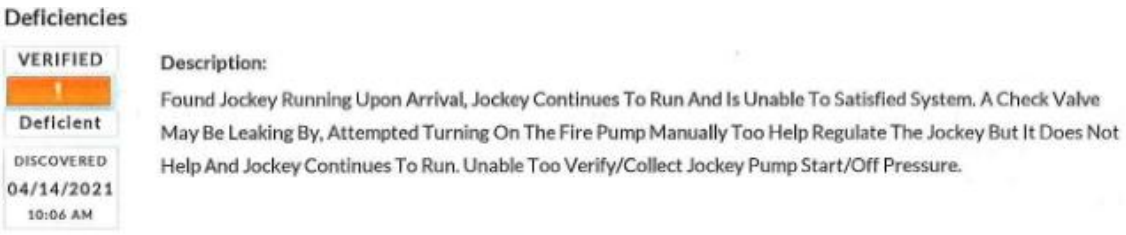
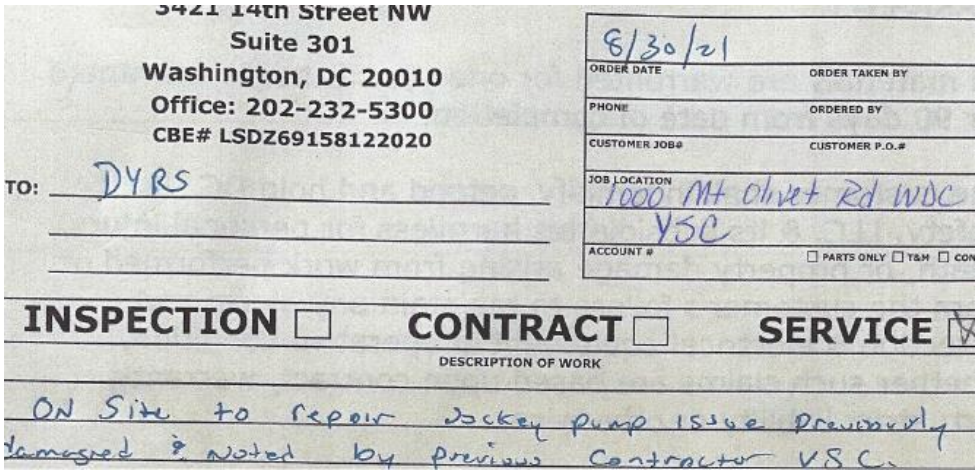


Figure 5.2-6 YSC Jockey Pump Repair Note August 2021



For the reasons cited in the section (Findings WFPS-1, WFPS-3, and WFPS-6), the completeness of the ITM that was conducted at the YSC and NB could not be verified as compliant with the applicable codes.

5.3 PORTABLE FIRE EXTINGUISHERS

Portable fire extinguishers are installed in NB and the YSC. They are required to be in place and properly pressurized to be effective for use during a fire.

To conduct the assessment, JH representatives reviewed a total of 16 monthly ITM reports between September 2020 and October 2023 regarding the portable fire extinguishers, eight from the YSC and eight from NB. Four of these reports, in September 2020 and March 2021, were produced by VSC and twelve of the reports, between August 2021 and October 2023, were produced by DC Life Safety / Fireline.

The DYRS Contractor Form for Required Inspection, Testing & Maintenance of Portable Fire references NFPA 10 Standard for Portable Fire Extinguishers – 2013 Edition. The following Section of NFPA 10 – 2013 is applicable:

+ Chapter 7 – Inspection, Maintenance and Recharging

The ITM documentation reviewed was prepared by VSC prior to August 2021, and prepared by DC Life Safety and Fireline beginning in August 2021. The forms are complete and the ITM documentation submitted indicated that NFPA 10 was used for the ITM work performed.

JH's July 27, 2018 assessment recommended that "DYRS develop an inventory that can be updated over time and compare monthly inspection reports with those inventories. If there are discrepancies between the number of extinguishers tested and the number reflected in the inventory, they should be resolved promptly, and the resolution should be documented." The ITM documentation of fire extinguishers do not include a facility-based inventory and, furthermore, the ITM reports reviewed did not show a consistent number of fire extinguishers in both the YSC and NB from one report to the next.

At YSC and NB, the documentation of the ITM conducted on the portable fire extinguishers has been submitted to DYRS by contractors. VSC submitted a detailed list of fire extinguishers and the associated manufacturing date. DC Life Safety submitted a marked-up map of extinguishers at the facility. It is not possible based on that documentation to ascertain whether all extinguishers at the facilities have been inspected, maintained, and recharged as required because the number of fire extinguishers maintained vary in most reports (Finding FE-1).

Table 5.3-1 shows the number of fire extinguishers that were reported to have been inspected at the YSC on dates in 2017, 2018, 2020, 2022, and 2023.

Table 5.3-1 Fire Extinguisher YSC ITM Comparison

Date	*9/26/17*	*1/25/18*	*9/2020*	*1/2022*	*3/2022*	*4/11/2023*
Number of Extinguishers Inspected	69	65	57 including spares	45	45 (Note 1)	46 plus spares

Note 1 – The report notes "9 new spares, 36 old/expired spares."

At NB, the documentation of the number of fire extinguishers inspected from September 2020 to October 2023 was not consistent over time. Table 5.3-2 shows the number of fire extinguishers reported to have been inspected at NB on dates in 2017, 2020, 2021, 2022, and 2023.

Table 5.3-2 Fire Extinguisher NB ITM Comparison

Date	*4/10/17*	*12/18/17*	*9/2020*	*3/2021*	*3/2022*	*4/11/2023*
Number of Extinguishers Inspected	66	44	45 plus spares	49 plus 17 spares	53 plus 12 spares	52 plus 12 spares

The NB ITM data for August 2021 recommends three (3) additional fire extinguishers. There are no documentations to indicate this issue was resolved, but the number of extinguishers did increase.

Based on the documentation, it is not possible to ascertain whether all extinguishers at the facilities have been inspected, maintained, and recharged as required. Some test documentation does not provide documentation of what fire extinguishers were tested or where. In 2022 and 2023, a map is provided showing the locations of fire extinguishers within the facilities. If DYRS intends to use a map to guide fire extinguisher inspections, they must ensure that every fire extinguisher in service or stored (e.g., in an inventory) at the facility is reflected on the map and tested consistent with NFPA standards. While a location-based guide inspections is acceptable, there must be some form of documentation that each *extinguisher* is inspected, as it is the extinguishers that are being inspected and not the locations (and extinguishers at a specific location can change over time).

NFPA 10 requires internal inspections of fire extinguishers at intervals ranging from one to six years, depending on the type of extinguisher [NFPA 10, Section 7.3.3.1]. NFPA 10 also requires hydrostatic testing of fire extinguishers at intervals ranging from five to 12 years, depending on the type of extinguisher [NFPA 10, Section 8.3.1]. The ITM documents reviewed do not include a record of internal inspections or hydrostatic tests of the fire extinguishers. However, some ITM reports, for example October 2021 and January 2022, show fire extinguishers were replaced at YSC. It could not be determined if the age of the fire extinguishers is being tracked by DYRS or their contractors to determine when hydrostatic tests or internal inspections are required (Finding FE-2).

Based on the ITM documentation that JH reviewed, it appears that the fire extinguishers are being inspected and maintained in compliance with NFPA 10 – 2013 Edition. However, JH would recommend a complete record of which fire extinguishers are hydrostatically tested or replaced and when to ensure the required testing interval is not exceeded. As contractors may change from year to year, a complete and up to date list is necessary to allow tracking of extinguishers (Finding FE-3).

In the forms the Contractor notes indicate that they are keeping old, expired extinguishers on site. Old extinguishers on site may be confused as being available to use by site staff. It is recommended that fire extinguishers that are not suitable for use be removed from the site (Finding FE-4). For the reasons cited in this section, Finding FE-1 through Finding FE-4, the completeness of the ITM that was conducted at the YSC and NB could not be verified as compliant with the applicable codes.

5.4 EMERGENCY GENERATORS

Emergency generators provide a backup power source for fire detection and suppression systems as well as electronic locks in the event of a power outage. ITM documentation for three generators at NB (Generator #1, Generator #2, and Shop Generator) and one generator at YSC was provided for review.

To conduct the assessment, JH representatives reviewed a total of 14 monthly ITM reports between September 2020 and June 2023 regarding the emergency generators, seven from the YSC and seven from NB, all of which were produced by Covenant Development Company (CDCO).

The DYRS Contractor Form for Required Inspection, Testing & Maintenance of Emergency and Standby Power Systems references NFPA 110 Standard for Emergency and Standby Power Systems – 2013 Edition. The NFPA 110-2013 Edition is currently referenced by DCMR 12A (2017). The following sections of NFPA 110 – 2013 apply:

- Chapter 8 – Routine Maintenance and Operational Testing

The documentation for the YSC and NB generators indicates that CDCO performed the ITM activities at both facilities. The forms completed by CDCO appear to be complete.

JH's July 27, 2018 assessment found deficiencies related to transfer switch testing for the emergency generators at both the YSC and New Beginnings. Based on the 2019 ITM documents, it appeared these deficiencies had been addressed. However, per the ITM documents reviewed in this assessment, it appears the deficiencies reoccurred or have not been addressed at both facilities (Finding EG-1). The failure or need for replacement of the transfer switch was identified on the September 2020, March 2021, and March 2022 documentation for the YSC facility. The other tests between those identified did not indicate the transfer switch was tested at the YSC. Furthermore, the January and June 2023 documentation that JH reviewed for YSC did not indicate the transfer switch was tested. For the NB facility, the January and June 2023 documentations shows that the transfer switch and load test were completed for Generator 1. The transfer switch and load test for Generators 2 and Shop could not be tested due to needed repairs.

The September 2020, March 2021, and August 2021 inspection reports for both facilities contain a surveillance checklist that was verbatim from NFPA 110-2013 Edition (although the checklist form references the 2010 version rather than the 2013 Edition (Findings General-1)). The checklist also included frequency intervals required for each equipment component.

Each page of the checklist form was supplemented by the following:

Inspection shall be conducted in accordance with the manufacturer's design, installation and maintenance manual
Testing shall be conducted in accordance with the manufacturer's design, installation and maintenance manual
Maintenance shall be conducted in accordance with the manufacturer's design, installation and maintenance manual
The monthly test of a transfer switch shall consist of electrically operating the transfer switch from Primary position to the Alternate position and then return to the Primary position

This is consistent with the requirements given in Chapter 8 of NFPA 110-2013 Edition which states the following:

"8.1.1 The routine maintenance and operational testing program shall be based on all of the following:
(1) Manufacturer's recommendations
(2) Instruction manuals
(3) Minimum requirements of this chapter
(4) The authority having jurisdiction"

The October 2021, January 2022, March 2022 inspections at YSC and NB contain a revised checklist that appears to contain steps and references to a specific owner's manual. The same checklist appears for each of the generators tested. The following text is shown on each of the checklist pages:

REFERENCE: Generac Power Systems Inc. Owner's Manual for Stationary Industrial Generators (**Model**: 19638790500, **Type**: MD600, **Engine**: D18.1)
Additional Resources: Generac Power Systems Inc. Maintenance Schedule (section 4) and 2013 NFPA 110

It appears that the referenced Owner's Manual would only be applicable to the NB location for Gen #1 and Gen #2 (both are Generac, 600 kW units). The other two generators are different models and sizes – Onan, 250 kVA (NB Shop generator) and Katolight, 1000 kW (YSC location). It appears that this revised surveillance checklist has been set up by testing frequency (i.e., Monthly, Quarterly, Semi-Annual, Annual, and Other). Although the paragraph/reference in the surveillance checklist provides some confusion due to the specific reference not being clearly stated, it does appear that compliance to NFPA 110 is being maintained.

The inspection reports from 2021 through 2023 consist of the DYRS Contractor Guide form plus a form generated by CDCO via software output. The CDCO forms are 4-5 pages in length and provide a summary of the generator, checklists, and observations. Jensen Hughes reviewed the CDCO forms as well as the Contractor Guide forms.

Issues identified in the documentation are not shown as being resolved or that a work order has been issued (Finding EG-2). The resolution of issues identified appears to not be completed as ITM reports do contain repetitive failures. For example, the January 2022 and March 2022 documentation at YSC and NB identify the following repetitive issues:

1. Antifreeze flush still required – identified in March 2021 at NB (Shop Gen)
2. Batteries need replaced – identified in March 2021 at NB (Shop Gen)
3. Battery charger needs replaced – identified in March 2021 at NB (Shop Gen)
4. Antifreeze leak – identified in January 2022 at the YSC

In 2023, the following issues identified at NB in January are repeated in the June documentation JH reviewed:

1. Generator 1 – Recommendation to replace batteries due to age.
2. Generator 2 – Fail - Unit disabled, in need of repair – batteries, wiring harness.
3. Shop Generator – Fail - Unit down. Needs control panel.

An acceptable level of inspection and testing activities is being performed to identify issues on the fire protection aspects of the emergency generators at the YSC and NB. However, issues identified in the ITM need to be resolved promptly. For the reasons cited in this section (Findings EG-1 and EG-2) the completeness of the ITM that was conducted at the YSC and NB could not be verified as compliant with the applicable codes.

5.5 HVAC SYSTEMS

HVAC systems are one avenue for smoke to spread in a building. The YSC and NB have HVAC systems that are required to be inspected, tested, and maintained.

To conduct the assessment, JH representatives reviewed a total of 16 monthly ITM reports between September 2020 and November 2023 regarding the HVAC system, eight from the YSC and eight from NB. Four of these

reports, in September 2020 and March 2021, were produced by WL Gary Company and ten of the reports, between August 2021 and November 2023, were produced by DC Life Safety / RSC Electrical and Mechanical. Additionally, we reviewed two reports produced in September 2019 by Freeman Air, one for each facility, related to the dampers at the YSC and NB.

Fire safety related ITM requirements for HVAC systems include:

- Duct smoke detectors and associated fan shut down; and
- Fire/smoke damper inspection and testing.

DYRS Contractor Form for Required Inspection, Testing & Maintenance of Air Conditioning and Ventilation (HVAC) Systems references NFPA 90A Standard for the Installation of Air-Conditioning and Ventilating Systems – 2002 Edition and the NFPA 80- 2010 Edition. However, NFPA 90A pertains to the installation requirements for HVAC systems, not ITM requirements. Standards for testing of smoke detectors and fan shutdowns are established by NFPA 72.

Based on the sample of ITM documents reviewed, it appears that ITM of the HVAC system was performed by DYRS and WL Gary Company until August 2021. Beginning in August 2021, ITM documentation was prepared by DC Life Safety and RSC Electrical and Mechanical.

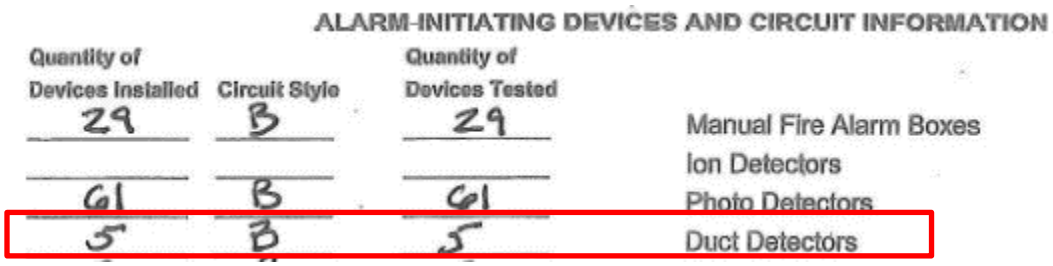
The DYRS Contractor Form lists several HVAC items that are to be inspected. Items inspected include plenums, apparatus casing plenums, air handling unit plenums, and air filters. Some of the forms, such as March 2022 for air handling unit AHU 2 at YSC, are only partially filled out and do not identify pass or fail (Finding HVAC-1). However, this issue is no longer evident on the 2023 forms and is therefore resolved.

As identified in the July 2020 JH assessment, the DYRS Contractor Form for Required Inspection, Testing & Maintenance of Air Conditioning and Ventilation (HVAC) Systems does not provide sufficient detail necessary for fire protection inspections. Duct smoke detectors, fan shut down, and fire/smoke dampers are HVAC components that are fire safety related. The DYRS form contains several line items related to ducts and plenums, which are not directly related to safety. The forms remain unchanged in 2023. It is unclear what fire safety properties an inspector would identify on these items (Finding HVAC-2). It is recommended that the DYRS Contractor forms be revised to eliminate unnecessary inspection items or include a specific reference or criteria as a basis for the inspection. This should assist the inspectors with completely filling out the forms.

Based on data reviewed for the July 2020 JH assessments and information provided by your office, there are duct smoke detectors installed at both YSC and NB. The duct smoke detectors should initiate automatic shutdown of fan systems and potentially closure of dampers.

There is indication that ITM of duct smoke detectors at the YSC was performed. Figure 5.5-1 provides evidence of duct smoke detector testing at the YSC. Additionally, during a March 27, 2024 site visit to the YSC during which JH witnessed testing of the fire alarm system, representatives conducted a test of one duct smoke detector, which was functional.

Figure 5.5-1 Evidence of Duct Smoke Detector at the YSC per Fire Alarm Test Forms 1/29/2022

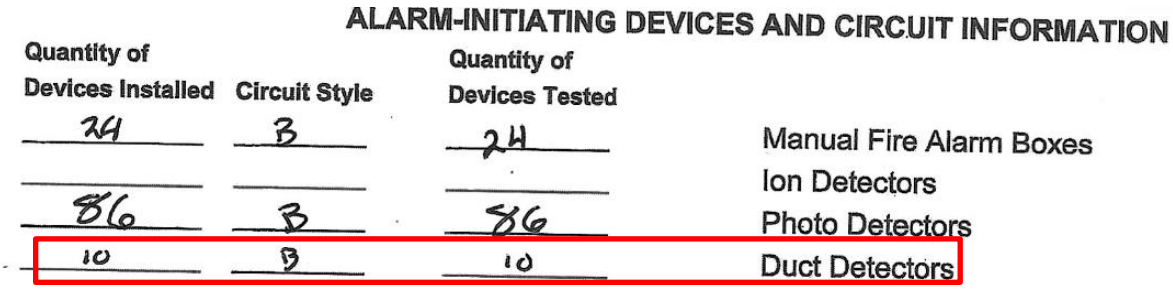


ALARM-INITIATING DEVICES AND CIRCUIT INFORMATION

Quantity of Devices Installed	Circuit Style	Quantity of Devices Tested	
29	B	29	Manual Fire Alarm Boxes
			Ion Detectors
61	B	61	Photo Detectors
5	B	5	Duct Detectors

Figure 5.5-2 confirms that ITM contractors know there are duct smoke detectors in the YSC building. However, the number of duct detectors differs between test reports. Furthermore, there is no evidence in the documents that fan shut down or damper closure (if required) was tested.

Figure 5.5-2 Evidence of Duct Smoke Detector at the YSC per Fire Alarm Test Forms 1/18/2023

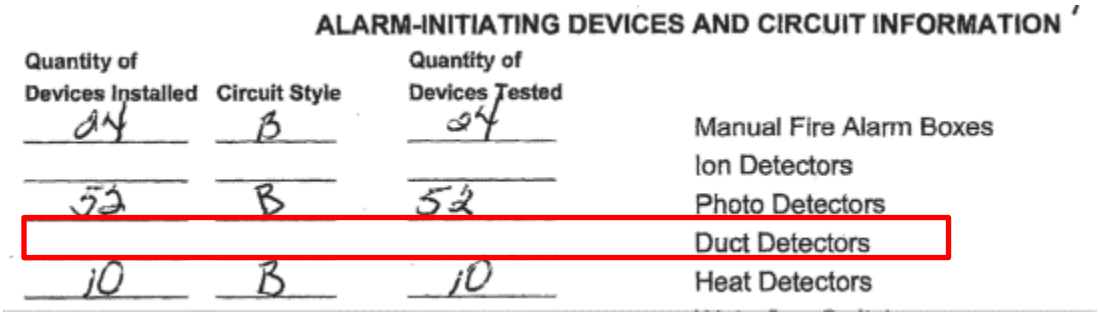


ALARM-INITIATING DEVICES AND CIRCUIT INFORMATION

Quantity of Devices Installed	Circuit Style	Quantity of Devices Tested	
24	B	24	Manual Fire Alarm Boxes
			Ion Detectors
86	B	86	Photo Detectors
10	B	10	Duct Detectors

Prior to 2023, the test results for NB do not indicate duct smoke detectors were tested (Finding HVAC-3). It appears, however, that duct smoke detectors were tested beginning in 2023. Figures 5.5d-3 provides an example of the test data for testing the fire alarm at NB and no duct smoke detectors are indicated as being tested. There is no documentation in the reports that the automatic fan shutdown or dampers were tested (Finding HVAC-4) either. Furthermore, there is a discrepancy pertaining to the number of duct smoke detectors installed and tested in the facility. Figure 5.5-4 shows that only two duct smoke detectors were tested at NB the following year.

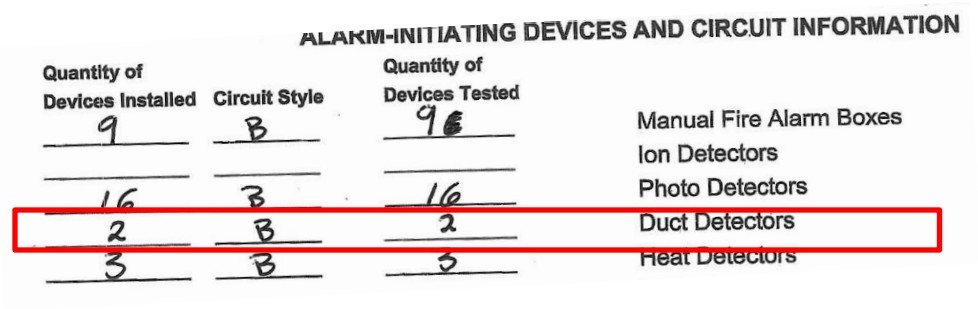
Figure 5.5-3 ITM Documentation Indicating No Duct Smoke Detectors Tested at NB 1/27/2022



ALARM-INITIATING DEVICES AND CIRCUIT INFORMATION

Quantity of Devices Installed	Circuit Style	Quantity of Devices Tested	
24	B	24	Manual Fire Alarm Boxes
			Ion Detectors
52	B	52	Photo Detectors
			Duct Detectors
10	B	10	Heat Detectors

Figure 5.5-4 ITM Documentation Indicating Only Two Duct Smoke Detectors Tested at NB 1/18/2023



ALARM-INITIATING DEVICES AND CIRCUIT INFORMATION

Quantity of Devices Installed	Circuit Style	Quantity of Devices Tested	
9	B	9	Manual Fire Alarm Boxes
			Ion Detectors
16	B	16	Photo Detectors
2	B	2	Duct Detectors
3	B	3	Heat Detectors

The 2018 JH assessment stated that duct smoke detectors appear to be tested, but there is “no documentation in the reports, however, that the automatic fan shutdowns were tested.” Furthermore, the July 2020 JH assessment stated that “based on my review of 2019 ITM documentation, I could not verify that fan shutdowns were tested.” Similarly, based on JH review of the ITM documentation from 2020, 2021, 2022, and 2023 it could not be verified that fan shutdowns were tested at NB (Finding HVAC-4).

The location and ITM of fire and smoke dampers is still an issue. The July 2018 JH assessment indicated that, “It is important that the location of fire and smoke barriers be available to fire safety inspectors so that they are able to appropriately inspect each fire/smoke separation during each inspection.”

In the July 2020 JH assessment it was documented that ITM of fire/smoke dampers at NB and the YSC was performed by Freeman Air in 2019. This is the latest documentation available. According to the Summary Report by Freeman Air dated November 11, 2019 for NB, a total of 90 fire dampers were inspected and tested as part of a 4-year inspection interval. 24 fire dampers failed because they were inaccessible, 49 dampers failed due to lack of an access door, and 2 fire dampers failed due to the access door being too small. No documentation was received indicating how these issues were resolved.

According to the Summary Report by Freeman Air dated September 6, 2019, for the YSC, a total of 215 fire dampers were inspected and tested as part of a 4-year inspection interval. Twelve fire dampers failed because they were inaccessible, 3 fire dampers failed due to improper closing, and 45 fire dampers failed because they were missing or not installed in the plane of the wall. No documentation was received indicating how these issues were resolved.

The July 2020 JH assessment stated the following:

> The 2019 ITM documentation includes "Fire Damper Maps" created by Freeman Air. In addition, DYRS provided to [the Office of the Special Arbiter] images of drawings in YSC and NB. The issue of identifying the locations of fire/smoke separations in YSC and NB is resolved. However, it could not be confirmed if the drawings showing the locations of fire/smoke separations are provided to the inspectors for their use and the identified barriers are inspected. Based on the difficulty of locating the drawings showing the locations of fire/smoke separations, it is our opinion that the barriers are not being inspected.

The documents show that a walkthrough of the HVAC system was performed in July 2019 and a test report was produced in September 2019. The reports appear comprehensive. Many deficiencies and proposed corrective actions were identified during the testing. However, there was no indication of resolution of issues (Finding HVAC-5). In addition, the technical adequacy of damper locations was not reviewed as directed by the Client.

These drawings appear to be an attempt at finding the locations of fire and smoke dampers. It is not clear if the issue of identifying the locations of all fire/smoke separations in the YSC and NB was resolved. It must be confirmed that drawings showing the locations of fire/smoke separations are complete and are provided to the inspectors for their use and the identified barriers are inspected (Finding HVAC-6). Also, correspondence from OIJJFO indicated that as of 2022 access to all damper locations still had not been provided to date (Finding HVAC-7).

Around August and September 2024, Paige Industrial Services, Inc., a general contractor, performed fire damper testing throughout YSC and MB. They also provided quotes to perform recommended repairs. Based on our review of the Paige Industrial Services test report, a summary includes:

- At YSC, 193 fire dampers were located and inspected. This number includes 95 fire dampers in the original Freeman Air report plus 98 additional dampers. Of the additional dampers tested, 13 passed and 12 failed due to damper "binding." The remainder of the dampers "failed" because they were inaccessible (66 dampers) mostly due to inadequately sized access hatches, missing (2 dampers), or not tested for another reason.

- At NB, 93 fire dampers were located and inspected. This number includes 77 fire dampers in the original Freeman Air reports, plus 16 additional dampers. A total of 30 dampers passed. The remaining dampers "failed" due to the damper being in the wrong location, or the dampers were inaccessible due to inadequately sized access hatches.

It is evident that there are major discrepancies in the number of fire dampers at YSC and NB as reported in the 2019 Freeman Air report versus the 2024 Paige Industrial Services report. In addition, there have been no corrective actions taken on the fire dampers since 2019 and prior. No documentation has been received indicating how fire damper issues were resolved per our 2018 assessment, our 2020 assessment or following the most recent 2024 testing.

An acceptable level of ITM activities is not being performed on the fire protection aspects of the HVAC system at the YSC and NB for the following reasons:

- It should be verified that fans are shutting down upon activation of the duct smoke detectors (Finding HVAC-4).
- Several issues pertaining to fire damper testing and maintenance were identified. Fire damper failures identified in the test reports are not being remediated. In addition, some dampers need to be relocated or access needs to be provided to the fire and smoke dampers so that damper testing can be completed (Finding HVAC-5 and HVAC-7).
- Drawings showing the locations of all fire/smoke separations and fire and smoke dampers need to be provided to the inspectors for their use and the identified barriers are inspected (Finding HVAC-6).

For the reasons cited in this section (Findings HVAC-1 through HVAC-7) the completeness of the ITM that was conducted at the YSC and NB could not be verified as compliant with the applicable codes.

5.6 ELECTRIC AND REMOTE LOCKING SYSTEMS

Electric and remote locking systems are required to be tested and maintained per manufacturer's specifications and NFPA 101 – 2015 Edition.

NFPA 101 requires that door and door hardware in the means of egress are inspected monthly and the inspection is documented.

To conduct the assessment, JH representatives reviewed a total of 16 monthly reports between September 2020 and November 2023 related to the door locks, eight from the YSC and eight from NB, all of which were produced internally by DYRS.

As stated in our previous two assessments in July 2018, and July 2020, "DYRS conducts regular testing of electric and remote locking systems. The lock inspection form DYRS uses documents that DYRS staff test the locks both electronically and manually, using a key, and the results of the testing of each lock is documented."

Also included in the July 2018 assessment was a recommendation that "DYRS add a date field to the inspection checklist. Recording the precise date would help ensure that no more than four weeks elapse between tests of any lock." JH found in the July 2020 assessment that, based on the review of the 2019 inspection forms, the recommendation was not implemented. A review of 2020, 2021, 2022, and 2023 forms indicates that the recommendation was still not implemented and the inspection date is not recorded on the inspection forms.[5]

The recommendation to update the DYRS inspection form notwithstanding, it appears that DYRS is meeting the ITM requirements pertaining to testing of electric and remote locking systems. Work orders and repairs of malfunctioning devices are not well documented. Repairs are not documented on several forms (Finding LS-1).

[5] The inspection forms were not modified. Inspections are recorded on individual monthly spreadsheets at each facility and the month and year of the inspections are recorded in the title of the Excel file names. At the YSC each file name is recorded as the month and year (e.g., March 2021). At NB the naming convention is to record the last day of the month (e.g., 3.31.21).

5.7 EXTINGUISHING SYSTEMS FOR RANGE, HOOD, AND DUCT SYSTEMS

Range, hood, and duct systems in kitchens have a higher risk for fires because of the presence of open flames, fuel sources, and combustible materials (e.g., grease). DCMR 12A references the International Fire Code-2015 Edition for protection of Kitchen Hoods. Previous assessments have required that maintenance and testing of extinguishing systems for range, hood, and duct systems meet the requirements of NFPA 96– 2014 Edition.

While NFPA 96 and NFPA 17A are not referenced explicitly in the DCMR 12A, NFPA 96 – 2014 and subsequent editions reference NFPA 17A as a testing standard.

DYRS Contractor Form for Required Inspection, Testing & Maintenance of Ventilation Control and Commercial Cooking Operations & Fire Protection Equipment references NFPA 96 – 2008 Edition. DCMR 12A (2017) does not reference NFPA 96. The DYRS Contractor Form for Required Inspection, Testing & Maintenance of Wet Chemical Fire Extinguishing Systems references NFPA 17A – 2013 Edition. DCMR 12A (2017) also references NFPA 17A – 2013 Edition.

To conduct the assessment, JH representatives reviewed a total of 16 monthly reports between September 2020 and August 2023 regarding the ventilation and kitchen hood inspections, eight from the YSC and eight from NB. Four of these reports, in September 2020 and March 2021, were produced by VSC. Ten of the reports, between August 2021 and August 2023, were produced by DC Life Safety / Fireline. Additionally, two hood cleaning reports produced by HADPRO were reviewed, one from August 2021 for the YSC and one from September 2021 for NB.

JH representatives also reviewed a total of 16 monthly reports between September 2020 and November 2023 regarding the wet chemical fire extinguishing systems. Ten reports are from the YSC and 10 from NB. Four of these reports, in September 2020 and March 2021, were produced by VSC and 12 of the reports, between August 2021 and November 2023, were produced by DC Life Safety / Fireline.

The following sections of NFPA 96 – 2014 apply:

+ Chapter 11 – Procedures for the Use and Maintenance of Equipment

The ITM documentation reviewed was prepared by VSC prior to approximately August 2021, and DC Life Safety and Fireline beginning in August 2021. The forms reviewed are complete and the ITM documentation submitted indicated that NFPA 96 was used for the ITM work performed.

Regular cleaning is necessary to prevent accumulation of flammable solids (e.g., grease). Receipts were provided that provide evidence that the hood and ductwork were being inspected and cleaned. DYRS contractors should inspect and clean the exhaust system, particularly for grease, as required by NFPA 96, Section 11.6. Receipts were provided that demonstrated the ductwork and hood are inspected and cleaned.

Based on JH review of relevant documents the ITM services that were performed on the range hood, and duct systems meet the requirements of the applicable codes.

6.0 Conclusion

DYRS is maintaining contracts for the ITM of fire protection systems and equipment at YSC and NB. This report evaluates a sample of the ITM documentation that was created between September 2020 and November 2023 for the YSC and NB based on the requirements in the applicable codes.

The ITM documentation for some of the systems was prepared by VSC until approximately August 2021, and DC Life Safety and Fireline beginning in August 2021 and continuing through 2023. The ITM forms are mostly complete and the ITM documentation submitted indicates that the correct codes or standards were used for most of the ITM work performed. Some editions referenced on these forms are not the current edition referenced in DCMR 12A. See Finding General-1.

As discussed in Section 3, our evaluation included the following:

- Determining if the documentation provided by OIJJFO to JH provides a basis for if the contractor meets the District of Columbia requirements for ITM including NFPA codes and standards. The documents do not provide a basis for the Contractor meeting all of the requirements of the applicable DC requirements.
- Determining if findings and recommendations related to ITM from JH's previous assessments at YSC and NB (dated July 27, 2018 and July 10, 2020) were addressed. Not all findings and recommendations were addressed.
- Providing any additional findings and recommendations as determined. Findings and recommendations are provided throughout the report.

There is a concern that items identified as deficiencies or issues discovered during ITM procedures are not promptly repaired or those repairs are not part of the ITM documentation file. For several of the systems, issues identified may render the systems inoperable if not repaired. Examples of issues that were identified without any repair documentation being submitted are provided throughout this report such as Findings FA-5, WFPS-5, WFPS-6, EG-1, and EG-2.

It appears the following systems are being tested in compliance with the applicable codes:

- Electric and Remote Locking Systems
- Extinguishing Systems for Range, Hood, and Duct Systems
- Wet Chemical Fire Extinguisher
- Backflow Preventers
- Fire Pump (YSC)

It could not be determined if ITM is being completed properly on the following systems:

- Fire Alarm Systems: There still appears to be inconsistencies in the numbers of device in the ITM reports for both YSC and NB. Some devices are marked on the forms as "passed" but those devices do not exist. Duct detectors at NB do not appear to be tested. DYRS should ensure that its fire safety device inventories at both facilities are up to date and accurate. See Findings FA-1 through FA-5. In addition, the YSC fire alarm system was marked as "condemned" in both January and July of 2023, indicating that no action was taken during that timeframe. DYRS should ensure failed components and ITM contractor recommendations are addressed in a timely manner.
- Water-Based Fire Protection Systems: See Findings WFPS-1, WFPS-3, and WFPS-6.
- Portable Fire Extinguishers: The number of extinguishers at both YSC and NB varies within the ITM data provided. The correct number of extinguishers has not been determined. An inventory of fire extinguishers should be created to ensure longer-term ITM such as hydrostatic testing or extinguisher replacement is being performed. See Findings FE-1 through FE-4.

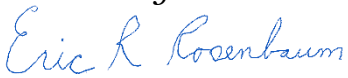
- HVAC: The inspection documentation for the fire dampers at the YSC and NB indicate that numerous fire dampers failed the inspection, could not be accessed for testing or were located outside of the plane of the fire barrier wall. Proper location and access to these dampers should be provided so that ITM procedures can be completed to meet the applicable requirements. It should also be verified that fans are shutting down upon activation of the duct smoke detectors. See Findings HVAC-1 through HVAC-7.
- Emergency and Standby Power Systems: Issues identified by the ITM must be resolved promptly. See Findings EG- 1 and EG-2.

The DYRS Contractor Forms for Required Inspection, Testing & Maintenance of Systems in some cases reference editions of applicable codes which are outdated. However, the code references on the DYRS Contractor Form should have limited impact on the ITM performed.

If you have any questions, please contact us.

Sincerely,

Jensen Hughes



Eric R. Rosenbaum, PE, FSFPE
Vice President

Erik H Anderson, PE
Market Leader

Appendix A - List of ITM Documents Reviewed

- Backflow Preventer
  - November 2021 (both facilities), April 2023 (both facilities)
- Door Locks

  September 2020, March 2021, August 2021, October 2021, January 2022, March 2022, and February 2023 (both facilities)

  November 2023 (NB only), September 2023 (YSC only)
- Fire Alarms

  September 2020, March 2021, July 2021, August 2021, October 2021, January 2022, and March 2022, July 2023 (both facilities)

  January 2023 (NB only)
- Fire Pumps (YSC only; NB has no fire pumps)

  April 2021 annual inspection, February 2023, March 2023, and September 2023
- Emergency Generators

  September 2020, March 2021, August 2021, October 2021, January 2022, March 2022, January 2023, and June 2023 (both facilities)
- HVAC

  September 2020, March 2021, August 2021, October 2021, January 2022, March 2022, February 2023, and November 2023 (both facilities)

  September 2019 4-Year Damper Inspection (both facilities)

  September 2024 – Paige Industrial Services – Fire Damper Inspection Report
- Portable Fire Extinguishers

  September 2020, March 2021, August 2021, October 2021, January 2022, March 2022, April 2023, and October 2023 (both facilities)
- Sprinkler Systems

  September 2020, January 2021, March 2021, August 2021, October 2021, January 2022, March 2022, February 2023, and August 2023 (both facilities)
- Valves, Valve Components, and Trim
  - September 2020, January 2021 (NB only), March 2021, August 2021, October 2021, January 2022, and March 2022, February 2023, and August 2023 (both facilities unless indicated otherwise)
- Ventilation and Kitchen Hood Inspection
  - September 2020, March 2021, August 2021, October 2021, March 2022, February 2023, and August 2023 (both facilities)
  - Hood cleaning receipts 8/12/2021 YSC and 9/3/2021 NB

+ Wet Chemical Fire Extinguishing Systems

  September 2020, March 2021, August 2021, October 2021, January 2022, March 2022, April 2023, and November 2023 (both facilities)

-

Attachment 3

YOUTH SERVICES CENTER
1000 MOUNT OLIVE ROAD, NE
WASHINGTON, DC 2002

Fire Alarm System Test Plan

PREPARED FOR

Office of Independent Juvenile Justice Facilities
200 Massachusetts Avenue, NW, Suite 700
Washington, DC 20001

Project #: 1ERR00046.000
Date: March 25, 2024

PREPARED BY

Matthew Lausch, SET
Erik Anderson, P.E.
3610 Commerce Drive, Suite 817
Baltimore, MD 21227 USA

matthew.lausch@jensenhughes.com
+1 443-313-9885

JENSEN HUGHES

Revision Record Summary

Revision	*Revision Summary*
0	Initial use
1	Client Input

Table of Contents

1.0 Project Summary

The scope of the project is to test the existing fire alarm system at the Youth Services Center located at 1000 Mount Olivet Road, NE Washington, DC 20002. The need to test the fire alarm system is driven primarily by the Inspection Test and Maintenance (ITM) records over the past year, which identify concerns regarding the capability of the system to function properly. Additionally, there is uncertainty regarding the reliability of the system, what functions operate correctly and what does not. The fire alarm testing will determine the status of the system and identify any deficiencies.

2.0 Project Responsibility

2.1 OFFICE OF INDEPENDENT JUVENILE JUSTICE FACILITIES OVERSIGHT (OIJJFO)

The Office of Independent Juvenile Justice Facilities Oversight was established pursuant to the DC Mayor's Order 2020-115 that was issued on November 13, 2020, and created upon the issuance of a January 6, 2021, court order. The Executive Director of OIJJFO is Mark Jordan and he is assisted by Mia Caras who is a Senior Analyst. This office has the oversight responsibility for this facility.

The facility is operated by the Washington DC Department of Youth and Rehabilitation Services (DYRS).

2.2 JENSEN HUGHES

As an independent, third-party, Jensen Hughes is providing fire and life safety consulting services for the OIJJFO. Jensen Hughes will be responsible for overseeing and administrating the fire alarm testing plan in accordance with the applicable building and fire codes.

Jensen Hughes will be present at the site and will witness the system testing that will be performed by the system manufacturer Siemens. This includes verifying the functionality of the fire alarm system and the associated life safety functions to the extent feasible during the single-day test. After the testing is completed, Jensen Hughes will issue a final written report to the OIJJFO summarizing the results and recommendations.

2.3 SIEMENS

Siemens is the fire alarm manufacturer of the existing fire alarm system. Two (2) Siemens Fire Technicians will operate the panel, conduct the testing and will be responsible for initiating the alarm conditions in compliance with the manufacturer's instructions and requirements. Additionally, they will confirm proper operation of the equipment, devices, and appliances.

Jensen Hughes will develop a test plan and will direct the Siemens technicians during the test.

3.0 Existing Fire Alarm System Information

The existing fire alarm system is a Siemens MXL that was originally introduced in the 1990's. The manufacturer offered this type of system through October 1, 2013. System parts and components were provided for a five year period from 2013 until 2018. MXL detectors and devices were available for a ten year period from 2013 through 2020. The system is no longer supported by Siemens and replacement parts are no longer manufactured.

4.0 Fire Alarm Testing Methodology

All testing operations referred to in this document will be performed by the fire alarm system manufacturer and be witnessed by Jensen Hughes. Jensen Hughes will witness the test operations for verification and documentation, will direct the actual testing operations and activities.

4.1 FIRE ALARM

The testing of the fire alarm system will focus on the functional performance of the system. Control equipment such as the main fire alarm control panel, sub-panels and power supplies will be tested. Fire alarm initiating devices and notification appliances will also be tested along with remote annunciators.

The primary purpose for this fire alarm system test is to assess the functionality of the YSC fire alarm system, including which fire alarm system functions are working and which functions are not working. The testing will also verify whether the fire alarm system is able to identify and communicate the location of a fire within the YSC. The testing is intended to address each of the initiating device types; however, the exact quantity to be tested will be based on what is found and what time permits and, as such, 100% of the fire alarm initiating devices may not be tested. Based on the test results, a determination will be made regarding whether the fire alarm system in its current operating status enables YSC staff to implement the YSC Fire Safety and Emergency Evacuation Plan.

The testing to be witnessed by Jensen Hughes for this project includes the following types of fire alarm initiating devices if present:

- Manual Pull Station
- Smoke Detector
- Heat Detector
- HVAC Duct Smoke Detector
- Sprinkler Water Flow Switch
- Other Monitoring Modules

The initiating devices will be tested to confirm if life safety functions are operating correctly. The life safety functions/interfaces may include any of the following:

- Elevator Recall
- Elevator Shunt
- Audible and Visual Device Notification (functionality only)
- AHU/HVAC Shutdown
- Other life safety functions not specifically stated

Supervisory and trouble conditions will also be verified as part of the testing witnessed by Jensen Hughes personnel. All supervisory signals will be confirmed to report at all required FACP locations when initiated. Trouble conditions specifically for loss of power will be confirmed for all fire alarm control panels. A representative sample of all trouble conditions (not less than 10%) associated with circuit integrity for notification

appliance circuits (IDNAC) and signaling line circuits (SLC) will be tested to ensure proper annunciation at all required FACU and annunciator locations.

4.2 FIRE ALARM NOTIFICATION APPLIANCES

Jensen Hughes personnel will verify the functionality of all audible and visual notification. If any candela strobe ratings or appliance locations are found to be deficient, a Jensen Hughes representative will note the issues.

Jensen Hughes will not perform any performance-based testing regarding audibility decibel (dB) levels or intelligibility in regard to the fire alarm testing. It is understood that there could be audible issues with the existing system and if any concerns or deficiencies are observed during the testing, Jensen Hughes will note them in the final report.

4.3 FIRE ALARM ANNUNCIATION

As part of the initiating device verification, Jensen Hughes will confirm the accuracy of the fire alarm annunciators (i.e., locations alarms in the building) with the Siemens fire alarm control unit and remote annunciator(s). Deficiencies will be noted in the final report that will be issued by Jensen Hughes. Siemens will be responsible for ensuring that the initiating device locations report correctly and provide the correct information on the main FACU and remote annunciators.

Appendices Table of Contents

Appendix A Sample Test Sheets

JENSEN HUGHES

Fire Alarm Panel / Circuit

Project: PROJECT NAME
Permit Number: PROJECT PERMIT
JH Project: XXXXXXXX

Legend
Y: Yes
N: Unsatisfactory
N/A: Non Applicable

Inspector:
Assisting Inspector(s):
Panel Location:
Panel Type (FACP, AUX Power, Amplifier):
Total Evacuation or Partial Evacuation:

Create Next Sheet

Comments:

System Verification:		Complies? (Y/N/NA)	Comment
Power Suplies			
1.	Two independent & reliable power supplies		
2.	Primary power dedicated branch		
3.	Dedicated branch circuit mechanically protected		
4	Circuit disconnecting means		
5.	Secondary power supply size adequate		
6.	Secondary power transfer 10 seconds		
7.	Batteries permanently marked		
8.	Location of remotely located power supply marked		
9.	Batteries recharge within 48 hours		
10.	Batteries and charger supervised		
11.	All detection devices listed for use with control unit		
12.	Primary/secondary power supplies monitored		
Alarm Wiring			
13.	Fire alarm circuits wiring adequate		
14.	Fire alarm circuits extended beyond one building meet NEC requirements		
15.	Outside wiring for Fire Alarm systems		
16.	Physical Protction for wiring		
17.	For partial/selective evacuation systems, notification circuits survivible		
Trouble Signal			
18.	Trouble signals audible and visible indication		
19.	Means of silencing trouble signal acceptable		
20.	Override of trouble signal silencing switch for subesequent sounding of a supervisory signal		
21.	Trouble signal located in an area where likely to be heard		
22.	Zone of origin indicated on panel/FACP/ Alarm Annunciation Display		
23.	Visible indication/annunciation where required and adequately defined		
24.	Monitor integrity of interconnecting equipment, devices and appliances within 200 seconds (3.3 minutes)		
25.	Monitor integrity of power supplies		
26.	Supervising station fire alarm not to transmit loss of primary power failure signals for 60 to 180 minutes		
27.	Interconnected Fire Alarm Control units centrally monitored		
Circuits			
28.	SLC Class A or B		
29.	SLC meet survivibility requirement		
30.	Speaker circuits Class A or B		
31.	Speaker circuit meet survivibility requirement		
32.	Strobe circuits Class A or B		
33.	Strobe circuits meet survivibility requirement		
34.	Network Data SLC (Riser) Class A or B		
35.	Network Data SLC (Riser) meet survivibility requirements		
36.	Network Audio Circuit (Riser) Class A or B		
37.	Network Audio Circuit (Riser) meet survivibility requirements		
Tables, Forms, and Charts			
38.	Record of Completion filled out completely		
39.	Testing Methods		
40.	Visual Inspection Frequencies		
41.	Testing Frequencies		
42.	Inspection and Testing Form		

JENSEN HUGHES

INITIATION DEVICES INSPECTION & TESTING REPORT

Project: PROJECT NAME
City & State: CITY & STATE
Inspector:
Assisting Inspector(s):

Permit Number: PROJECT PERMIT
JH Project: XXXXXXXXX

Sort Test Data (Ref. Date)
Sort Test Data (Device)
Sort Test Data (Level)

Legend	
AS: Aspirated Smoke Detector	HD: Spot Type Heat Detector (Area)
SD: Spot Type Smoke Detector (Area)	LD: Line-Type Heat Detector
DDs: Duct Mounted Smoke Detector: Air-Sampling Type	FD: Flame Detector
DDz: Duct Mounted Smoke Detector: Zero-velocity Type	WFS: Sprinkler Water flow Switch
BD: Projected-Beam Smoke Detector	MP: Manual Fire Alarm Box
	N/A - Not Applicable

Comments:

INSPECTIONS										TESTING				- for DDs Only					REFERENCE DATA		
Initiation Device Type	Fire Alarm Device Address	Fire Alarm Descriptor	Location / Level	Manufacturer	Model No.	Listing Number	Installed per Listing	Listed for Application	Located per Design Documentation	Activate Device and Verify Change in Status Notification	Monitoring System Correctly Annunciates Device	Activation Response Time	Output Functions per Sequence Matrix	Minimum Listed Duct Air Velocity (fpm)	Maximum Listed Duct Air Velocity (fpm)	Minimum Listed ΔP Across Sample Tubes (in. W.C.)	Maximum Listed ΔP Across Sample Tubes (in. W.C.)	Measured ΔP Across Sample Tubes (in. W.C.)	Reference Daily	Reference Date	Special Inspector Initials

JENSEN HUGHES

ADDITIONAL INSPECTION COMMENTS

Project:	PROJECT NAME	**Permit Number:**	PROJECT PERMIT
City & State:	CITY & STATE	**JH Project:**	XXXXXXXXX
Inspector:			
Attachment to Daily No.:		Create Next Sheet	

Applicable Codes, Standards and Design Documentation

Building Code/Amendments:	(Project Building Code)
Fire Code/Amendments:	(Project Fire Code)
Approved Lifesafety Report; Rev. & Date:	(Project Life Safety Package Title)
Approved Smoke Cntrl Diagrams; Rev. & Date:	(Project Fire Alarm Drawings)

Comments:		**Date:**	

Inspector's Signature:

Attachment 4

Caras, Mia (EOM)

From: Jordan, Mark (EOM)
Sent: Tuesday, April 23, 2024 2:34 PM
To: Dudley, Kenneth (DYRS); Norman, Wallis (DYRS); Hamlett, Mark (DYRS)
Cc: Sidbury, Porche (DYRS); Caras, Mia (EOM)
Subject: YSC Fire Alarm Testing - Results from March 2024
Attachments: FINAL YSC Fire Alarm Test Report 2024 04 23.pdf; RE: Following Up On Assessment of Fire Alarm System at the YSC

Follow Up Flag: Follow up
Flag Status: Flagged

Mr. Dudley, Mr. Wallis, and Mr. Hamlett:

Attached to this email is a copy of the final report containing findings and recommendations from a March 27, 2024 test of the YSC fire alarm system. The report was issued today by Jensen Hughes, the company this office uses for fire safety expert consultations. Mr. Dudley previously participated in an April 1, 2024 call with Jensen Hughes representatives during which they presented findings contained in this report. This report will be included in a larger assessment of fire safety inspection, testing, and maintenance ("ITM") that our office is conducting.

The attached report includes a number of findings and recommendations. Perhaps the most important finding is that the YSC fire alarm system is operating and able to detect and report the locations of fires within the secure side of the YSC (note that one manual pull station was not operating, the second of two manual pull stations in the YSC Gym). The operation of the fire alarm system on the non-secure side was not tested.

I would draw your immediate attention to one finding and recommendation in particular: Finding 3 and Recommendation 3 (Page 9). The YSC relies on a "defend-in-place" strategy as a first response to a fire (*i.e.*, rather than building evacuation), and thus it is essential to know the location of any fire in order to know what evacuation pattern to execute. As you know, the YSC is currently undergoing a renovation of Control and during the pendency of this renovation Control staff are operating out of an alternative location. There is no fire alarm panel in that alternative location to identify the location of a detected fire within the facility. Jensen Hughes recommends that a Network Command Center ("NCC") be installed in the temporary Control, which would relay information from the fire alarm system to staff in the temporary Control area, who could then communicate to staff appropriate evacuation routes.

Mr. Wallis and Mr. Hamlett:

I have provided some background on the YSC fire alarm testing that was conducted, below.

During my office's review of fire safety ITM documentation at New Beginnings and the YSC, we noted that throughout 2023 the fire alarm system panel was reported to be "condemned" by DYRS's fire safety testing contractors. Because it was not clear to us based on the documentation whether the fire alarm system was fully operational, and after consultation with Jensen Hughes representatives, I organized a conference call in mid-February 2024 – which included DYRS representatives, representatives from the contractors who perform testing on the fire alarm system, and Jensen Hughes representatives – to seek clarity on the operating status of the system.

After the call, I had outstanding questions regarding the operational status of the system. Mr. Dudley expressed to me that he also had unanswered questions and informed me that he intended to have a third party independently test the fire alarm system. In early March, Mr. Dudley informed me that he had encountered certain administrative

and financial hurdles when working with DGS, and that he had decided to use DYRS's budget to pay for testing. He also asked to use Jensen Hughes to perform said testing.

Because I thought it would create a conflict for Jensen Hughes if DYRS were to retain their services while they were still working for OIJJFO, I offered to pay for the testing using this office's budget and have Jensen Hughes produce a report for us, which I would provide to DYRS as soon as it was final. (*See* the attached e-mail string for the history). The report attached to this email is that final report, which Jensen Hughes issued today.

Please feel free to contact me with any questions.

Many thanks.

Mark

Mark Jordan
Executive Director
Office of Independent Juvenile Justice Facilities Oversight
200 Massachusetts Ave NW, Suite 700
Washington, DC 20001
Office: (202) 545-3067 | Cell: (202) 322-3605

YOUTH SERVICES CENTER
1000 MOUNT OLIVET ROAD, NE
WASHINGTON, DC 20002

Fire Alarm System Test Report

PREPARED FOR

Mark Jordan
Office of Independent Juvenile Justice Facilities Oversight
200 Massachusetts Avenue, NW, Suite 700
Washington, DC 20001

Project #: 1ERR00046.000
Date: April 23, 2024

PREPARED BY

Matthew Lausch, SET
Erik Anderson, P.E.
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Baltimore, MD 21227 USA

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+1 443.258.9810

JENSEN HUGHES

Table of Contents

1.0 Introduction

The Youth Services Center (YSC) located at 1000 Mount Olivet Road, NE Washington, DC 20002 is provided with an addressable, voice evacuation, Siemens MXL fire alarm system. The Inspection Test and Maintenance (ITM) records over the past year (2023) identified concerns regarding the age and condition of the fire alarm system and its ability to function properly, including notation on fire alarm inspection and testing documentation indicating that the panel was "condemned." Available testing documentation and a subsequent conference call with those responsible for testing the fire alarm system did not clarify whether there were limitations in the system's ability to detect and report fires to facility staff. Therefore, a test of the fire alarm was conducted on March 27, 2024, to determine the status of the system and to identify issues and recommendations.

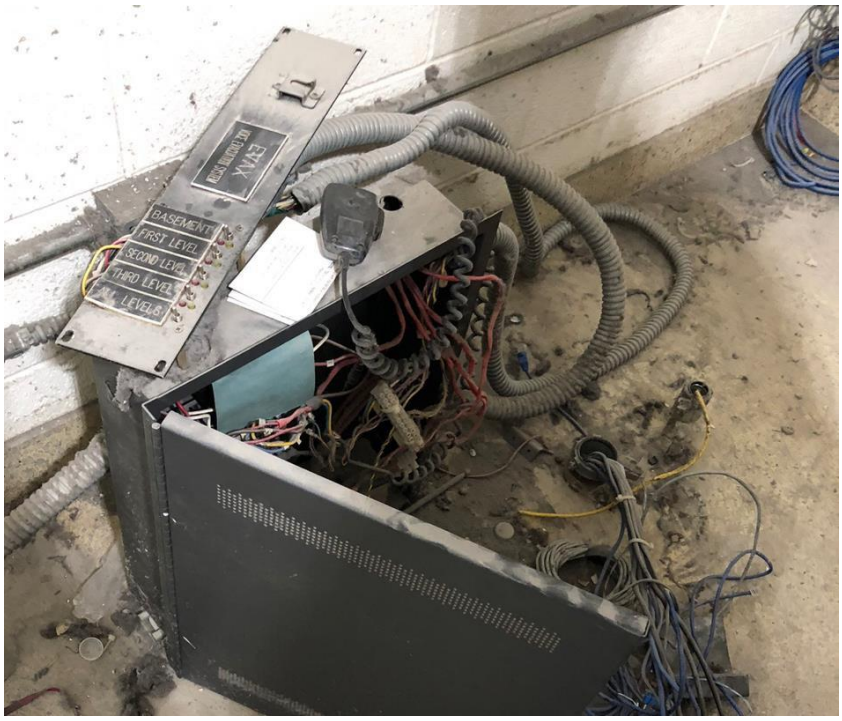
2.0 Existing Fire Alarm System

The existing fire alarm system is a voice evacuation Siemens MXL system presumably installed when the building was constructed circa 2004. The Siemens MXL was originally introduced to the market in the 1990's. The manufacturer offered this type of system through October 1, 2013. System parts and components were provided for a five year period from 2013 until 2018. MXL detectors and devices were available for a ten year period from 2013 through 2020. The system is no longer officially supported by Siemens and replacement parts are no longer manufactured.

The fire alarm system at YSC consists of a main fire alarm control unit (FACU) located in the Central Control Room 1102, which is currently under construction.[1] Initiation of alarm is accomplished via initiating devices such as: smoke detectors, manual pull stations, duct smoke detectors, sprinkler water flow switches, etc. Notification is accomplished throughout the facility via strobes and fire alarm speakers. Upon alarm, the speakers emit a temporal-3 alert tone, followed by a pre-recorded voice message.

[1] During this construction period, Control staff have relocated to another area of the facility from which they cannot monitor the FACU directly.

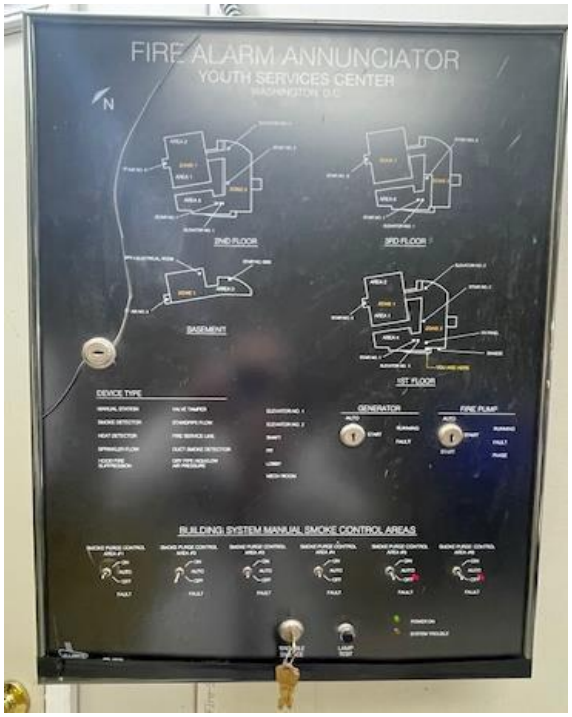
The system is connected to an EVAX brand panel, which is also located in the Central Control Room 1102. The EVAX panel contains the amplifiers for the voice evacuation announcements. A microphone is provided at the EVAX panel along with selector switches to allow manual paging to the Basement, First Floor, Second Floor, or all floors.



A graphical annunciator panel is provided near the main entrance to the facility on that level.[2] The annunciator provides a graphical representation of each floor along with LED lights to convey the type of alarm and location of the alarm within the building. There are also switches on the annunciator for manually controlling smoke control fans in the building.

The fire alarm system is not centrally monitored. Fires detected by the system are reported locally within the building, and facility staff are required to communicate emergencies to the fire department.

[2] The main entrance at the time of the test was a temporary entrance that is being used during a facility renovation project. YSC staff reported that the annunciator panel was moved from Control to the entrance area for the duration of the renovation project.



3.0 Attendees

The following people attended the fire alarm testing:

- Mark Jordan - Office of Independent Juvenile Justice Facilities Oversight (OIJJFO)
- Kenny Dudley - Washington DC Department of Youth Rehabilitation Services (DYRS)
- Denise Harvest - DYRS
- Erik Anderson – Jensen Hughes
- Matthew Lausch – Jensen Hughes
- Brandon Buckley – Siemens
- Matt Hardy - Siemens

4.0 Fire Alarm Methodology

Testing operations were performed by representatives from the fire alarm system manufacturer, Siemens, as directed by Jensen Hughes.

The primary purpose for this fire alarm system test was to assess the functionality of the YSC fire alarm system, including which fire alarm system functions are working and which functions are not working. The testing was intended to also verify whether the fire alarm system can identify and communicate the location of a fire within the YSC.

Control equipment such as the main fire alarm control panel, sub-panels and power supplies were tested / observed. The following fire alarm initiating devices were tested:

- Manual Pull Stations
- Smoke Detectors
- HVAC Duct Smoke Detectors

All manual pull stations on the secure side of the facility were tested and all smoke detectors on the secure side of the facility were tested. During the test, each pull station and each smoke detector was individually activated at the site of the device. Simultaneously, a tester confirmed that the activated device communicated with the FACU in Central Control Room and documented what information was conveyed (i.e., to assess the accuracy of the information reported).

Due to the scope of the test and time limitations, Jensen Hughes tested only one HVAC duct detector, located in the penthouse of the YSC.

Jensen Hughes personnel, joined by DYRS staff, verified the functionality of audible and visual notification (speaker and strobes) throughout the building

5.0 Findings and Conclusions

Based on data extracted directly from the FACU, there are a total of 29 manual pull stations, 128 smoke detectors, 4 smoke/heat detectors and 13 HVAC smoke detectors monitored by the fire alarm system at the YSC. Some of these devices are located on the secure side of the YSC and others are located on the non-secure side of the YSC where administrative offices are located.

Jensen Hughes supervised the testing of the fourteen (14) manual pull stations identified on the secure side of the YSC. Thirteen (13) of those fourteen (14) pull stations functioned properly. One pull station, located in the gymnasium, did not activate when pulled and should be repaired. There is a second pull station within the gymnasium.

Jensen Hughes supervised the testing of the sixty-six (66) smoke detectors identified on the secure side of the YSC and the testing revealed that all sixty-six (66) functioned properly, detecting smoke and reporting the event to the FACU. Based on comments from DYRS staff present during the testing, certain descriptions of locations of reported fire events in the facility that appear on the FACU should be updated to more accurately reflect terminology used by staff. These issues are described in the recommendations section below.

The fire annunciator panel located at the entrance of the building appeared to not be working properly. A Siemens representative identified that a MID board has a trouble condition that was preventing the 3rd floor zone 2 and 2nd floor area 5 LED's from working on the annunciator panel.

The microphone on the EVAX panel, which essentially serves as a public announcement system, was not functional at the time of the test and DYRS staff reported that it had not worked "in years." Jensen Hughes' testing determined that the problem was likely with the microphone itself and not the panel. Based on this finding, DYRS has reported that they have repaired the microphone and that the public announcement system in the facility is working again.

Based on the test results and observations made during the site visit, the fire alarm system is currently operational. An alarm condition at an initiating device (e.g., smoke detector or pull station) in the building will result in an alarm condition at the fire alarm panel (FACU) located in the Central Control Room. The device

address and a text description indicating the location of the device in alarm is accurately displayed on the FACU. This information enables YSC staff to implement the YSC Fire Safety and Emergency Evacuation Plan.

See Recommendations section for additional findings and recommendations.

6.0 Recommendations

The following major findings and recommendations are a result of our site visit:

Finding 1: The Siemens MXL fire alarm system currently installed at YSC is no longer being produced and is no longer officially supported by Siemens. Spare parts for the fire alarm panels and replacement devices will become increasingly difficult to obtain. Furthermore, any replacement devices purchased from vendors other than Siemens (i.e., through secondary markets) will not be warranted by the company.

Recommendation 1: Replace the Siemens MXL system at YSC with a new system. A completely new system, including a non-Siemens brand fire alarm system, could be installed, followed by demolition of the existing fire alarm system. Alternatively, the existing Siemens MXL panel and initiating devices could be "migrated" to newer versions using components of the existing system a gradual, phased-in approach. This would require using the same brand system that DYRS currently uses.[3] The main steps for the Siemens migration to occur are:

a. The main fire alarm panel in the Central Control Room and any sub-panels would be replaced with a current model such as the Desigo series panel. The existing initiating devices throughout the building could remain in place initially, as well as the existing wiring and conduit. The new panel would be backwards compatible with the existing older devices. Speakers and strobes could also remain. Down-time would be minimal for this step.

b. After the new panel(s) are installed, the MXL devices throughout the building would be swapped for newer models on a one-for-one basis over time as the devices failed and/or as DYRS's budget permitted. Note that all devices on a given circuit (loop) will need to be replaced at the same time for the circuit to remain operational. All addressable devices would eventually need to be replaced, including all smoke detectors, pull stations, duct smoke detectors, and modules (for monitoring sprinkler flow, tamper switches and other interfaces). The existing wiring and conduit throughout the building can be reused. The existing speakers and strobes will remain, as those devices are still supported.

c. The annunciator panel at the entrance would need to be removed if not used or it will need to be internally upgraded to be compatible with the new fire alarm system.

Finding 2: The EVAX panel located in the Central Control Room is utilized to provide pre-recorded voice announcements upon fire alarm activation. A microphone is provided at the EVAX panel along with selector switches to allow manual paging to the Basement, First Floor, Second Floor, or all floors. Although the pre-recorded messages were properly broadcast automatically during the fire alarm test, the microphone and manual paging features of the panel were not functional.

Recommendation 2: As part of the panel replacement per Recommendation 1, include troubleshooting and repair of the EVAXs panel. Restore the capability for manual paging via the microphone and the five selectable paging zones. Alternatively, provide a new replacement voice evaluation amplifier panel and microphone. The OIJJFO has reported to Jensen Hughes that DYRS representatives have stated that this recommendation has already been implemented.

[3] Jensen Hughes is not necessarily endorsing the specific vendor. Rather this recommendation presents a cost-effective alternative to a full system replacement, which would require the use of the specific vendor in question.

Finding 3: The YSC currently utilizes a partial evacuation or "defend-in-place" strategy during events such as fires. Residents are relocated within the facility from a potentially dangerous location to one of relative safety. The fire alarm panel is utilized by staff to determine the location of the alarm and residents are relocated accordingly. Therefore, accurate location of the alarm is critical. Currently during the ongoing Control Center Room renovation project, no staff are present to monitor the fire alarm panel. If a fire were to occur in a location where staff were not present or not able to communicate with Control, Control would at a minimum be delayed in communicating evacuation directions.

Recommendation 3: To more efficiently convey the location of a fire, a Network Command Center (NCC) or "workstation" should be considered. An NCC is a Windows based computer with color-display that can convey fire alarm information in a graphical, user-friendly format. A NCC could be installed in the temporary Control Center Room and later migrated to the renovated Control Center Room.

Finding 4: Some of the text labels that appear on the FACU upon initiating device activation seem to be based on old room numbers that DYRS staff indicated are no longer used.

Recommendation 4: During the fire alarm replacement, reprogram the following text labels, which are no longer used in the building. Utilize current room naming conventions (in parentheses).

a. 3-31 Game Space E218 (C/D 200 Game Space)
b. 3-32 Multi-purpose Classroom E206 (C200 Classroom)
c. 3-33 Multi-purpose Classroom E208 (D200 Classroom)
d. 3-38 Game Room E217 (A/B 200 Game Space)
e. 3-35 Multi-purpose Classroom E209 (B200 Classroom)
f. 3-36 Multi-purpose Classroom E207 (A200 Classroom)
g. 2-15 Game Space E118 (C/D 100 Game Space)
h. 2-16 Multi-purpose E108 (D100 Classroom)
i. 2-17 Multi-purpose E106 (C100 Classroom)
j. 2-21 Game Space E117 (A/B 100 Game Space)
k. 2-20 Multi-purpose E107 (A100 Classroom)
l. 2-19 Game Space E109 (B100 Classroom)
m. Corridor Lock (Superintendent Suite)
n. Zone 2 office (Superintendent Suite)
o. 2nd Floor Bathroom Floor 2 (Education Suite)
p. 2nd Floor Zone 2 Waiting (Education Suite)

Finding 5: The following devices and notification appliances were found to be non-operational:

a. Smoke detector in the first-floor corridor near Room 1100 (device 2-34)
b. Pull station in the gymnasium (device 3-59)
c. Notification appliances
    i. B200 – speaker not operational
    ii. D200 by block 10 - speaker not operational
    iii. D200 Classroom - speaker not operational
    iv. C200 - speaker not operational
    v. 2401 library – speaker not operational
    vi. 2400 education entrance door – speaker not operational
    vii. Gymnasium – 2 speakers not operational
    viii. Rm 3016 Superintendents – speaker not operational
    ix. Roof access 3rd floor - speaker not operational
    x. Basement 0300 Food Service - strobe not operational
    xi. Basement engineer storage room – strobe not operational
    xii. Basement workshop hallway – strobe not operational

Recommendation 5: Repair or replace non-operational smoke detector, pull station, and multiple notification appliances.

Finding 6: A Silent Knight auto-dialer is installed in the Central Control Room at the YSC. Its purpose is to automatically call a “supervising station” via telephone lines when the fire alarm panel goes into alarm, trouble, or supervisory condition. Similar to a residential security system, operators of the supervising station attempt to contact the responsible persons if signal is received, and/or escalate to the proper authorities as necessary.

The Silent Knight panel at YSC is currently not operational.

Recommendation 6: None. It was decided that monitoring of the fire alarm system by an external entity is not necessary because the facility is staffed 24/7 by trained personnel.

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Appendices Table of Contents

Appendix A - Test Points

JENSEN HUGHES

INITIATION DEVICES INSPECTION & TESTING REPORT

Project: Youth Services Center **Permit Number:**
City & State: Washington DC **JH Project:** 1ERR00046.000
Inspector: Erik Anderson, Matthew Lausch
Assisting Inspector(s):

Sort Test Data (Ref. Date) | Sort Test Data (Device) | Sort Test Data (Level)

Legend	
AS: Aspirated Smoke Detector	HD: Spot Type Heat Detector (Area)
SD: Spot Type Smoke Detector (Area)	LD: Line-Type Heat Detector
DDs: Duct Mounted Smoke Detector: Air-Sampling Type	FD: Flame Detector
DDz: Duct Mounted Smoke Detector: Zero-velocity Type	WFS: Sprinkler Water flow Switch
BD: Projected-Beam Smoke Detector	MP: Manual Fire Alarm Box
	N/A - Not Applicable

Comments:
Lausch at Fire Alarm Control Unit, Anderson in the field

INSPECTIONS										TESTING				- for DDs Only					REFERENCE DATA		
Initiation Device Type	Fire Alarm Device Address	Fire Alarm Descriptor	Location / Level	Manufacturer	Model No.	Listing Number	Installed per Listing	Listed for Application	Located per Design Documentation	Activate Device and Verify Change in Status Notification	Monitoring System Correctly Annunciates Device	Activation Response Time	Output Functions per Sequence Matrix	Minimum Listed Duct Air Velocity (fpm)	Maximum Listed Duct Air Velocity (fpm)	Minimum Listed ΔP Across Sample Tubes (in. W.C.)	Maximum Listed ΔP Across Sample Tubes (in. W.C.)	Measured ΔP Across Sample Tubes (in. W.C.)	Reference Daily	Reference Date	Special Inspector Initials
SD	2-38	Processing Center	1	Siemens	FP-11																
SD	2-39	Processing Center Room 1300	1	Siemens	FP-11																
MP	2-55	Processing Center Room 1300	1	Siemens	MSI-1																
SD	2-40	1st Floor Corridor Room 1100	1	Siemens	FP-11																
MP	4-55	Visitation Activity Room 1200	1	Siemens	MSI-1																
SD	4-33	Visitation Activity Room 1200	1	Siemens	FP-11																
SD	2-37	Corridor near Room 1108	1	Siemens	FP-11																
SD	9-12	Electrical Room 1108	1	Siemens	FP-11																
SD	9-13	Electrical Room 1108	1	Siemens	FP-11																
SD	9-9	Electrical Room 1108	1	Siemens	FP-11																
SD	9-11	Electrical Room 1108	1	Siemens	FP-11																
SD	2-35	JC Hallway 1408	1	Siemens	FP-11																
SD	2-36	Intake Counter Room 1401	1	Siemens	FP-11																
SD	2-34	1st Floor Corridor Room 1100	1	Siemens	FP-11																
SD	2-32	Medical Hallway 1500	1	Siemens	FP-11																
SD	2-33	1st Floor Corridor Room 1520	1	Siemens	FP-11																
SD	2-31	1sr Floor Corridor 1512	1	Siemens	FP-11																
SD	2-30	Multi-purpose room 1500	1	Siemens	FP-11																
MP	2-53	1sr Floor Corridor 1700	1	Siemens	MSI-1																
SD	2-29	1sr Floor Corridor 1700	1	Siemens	FP-11																
SD	2-10	Day Room 1st Floor A100	1	Siemens	FP-11																
SD	2-08	Day Room 1st Floor A100	1	Siemens	FP-11																

SD	2-32	Medical Hallway 1500	1	Siemens	FP-11																
SD	2-33	1st Floor Corridor Room 1520	1	Siemens	FP-11																
SD	2-31	1sr Floor Corridor 1512	1	Siemens	FP-11																
SD	2-30	Multi-purpose room 1500	1	Siemens	FP-11																
MP	2-53	1sr Floor Corridor 1700	1	Siemens	MSI-1																
SD	2-29	1sr Floor Corridor 1700	1	Siemens	FP-11																
SD	2-10	Day Room 1st Floor A100	1	Siemens	FP-11																
SD	2-08	Day Room 1st Floor A100	1	Siemens	FP-11																
SD	2-21	Game Space E107	1	Siemens	FP-11																
SD	2-20	Multi-purpose E107	1	Siemens	FP-11																
SD	2-19	Game Space E109	1	Siemens	FP-11																
SD	2-09	Day Room 1st Floor B100	1	Siemens	FP-11																
SD	2-07	Day Room 1st Floor B100	1	Siemens	FP-11																
SD	2-11	Day Room 1st Floor D100	1	Siemens	FP-11																
SD	2-13	Day Room 1st Floor D100	1	Siemens	FP-11																
SD	2-15	Game Space E118	1	Siemens	FP-11																
SD	2-16	Multi-purpose E108	1	Siemens	FP-11																
SD	2-17	Multi-purpose E106	1	Siemens	FP-11																
SD	2-14	Day Room 1st floor C-100	1	Siemens	FP-11																
SD	2-12	Day Room 1st floor C-100	1	Siemens	FP-11																
SD	2-22	1sr Floor Corridor E101	1	Siemens	FP-11																
SD	9-15	Electrical Room E103	1	Siemens	FP-11																
SD	2-18	1sr Floor Corridor E101	1	Siemens	FP-11																
MP	2-52	1sr Floor Stair 3-1	1	Siemens	MSI-1																
MP	3-55	1sr Floor Stair 3-2	1	Siemens	MSI-1																
SD	3-34	2nd Floor Corridor E201	2	Siemens	FP-11																
SD	3-37	2nd Floor Corridor E201	2	Siemens	FP-11																
SD	3-10	Day Room 2nd floor B200	2	Siemens	FP-11																
SD	3-08	Day Room 2nd floor B200	2	Siemens	FP-11																
SD	3-38	Game Room E217	2	Siemens	FP-11																
SD	3-35	Multi-purpose Classroom E209	2	Siemens	FP-11																
SD	3-36	Multi-purpose Classroom E209	2	Siemens	FP-11																
SD	3-11	Day Room 2nd floor A200	2	Siemens	FP-11																

SD	2-32	Medical Hallway 1500	1	Siemens	FP-11																
SD	2-33	1st Floor Corridor Room 1520	1	Siemens	FP-11																
SD	2-31	1sr Floor Corridor 1512	1	Siemens	FP-11																
SD	2-30	Multi-purpose room 1500	1	Siemens	FP-11																
MP	2-53	1sr Floor Corridor 1700	1	Siemens	MSI-1																
SD	2-29	1sr Floor Corridor 1700	1	Siemens	FP-11																
SD	2-10	Day Room 1st Floor A100	1	Siemens	FP-11																
SD	2-08	Day Room 1st Floor A100	1	Siemens	FP-11																
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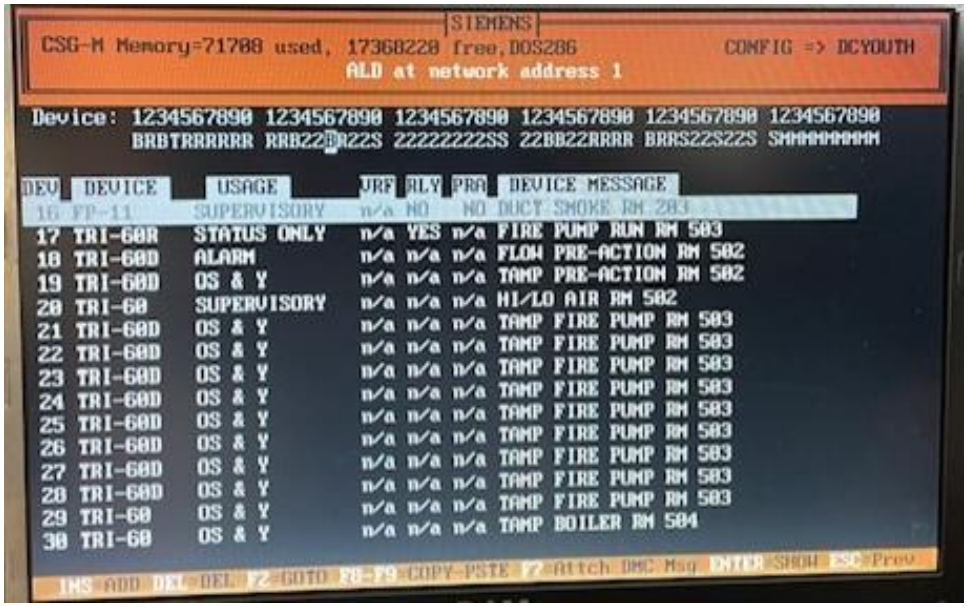
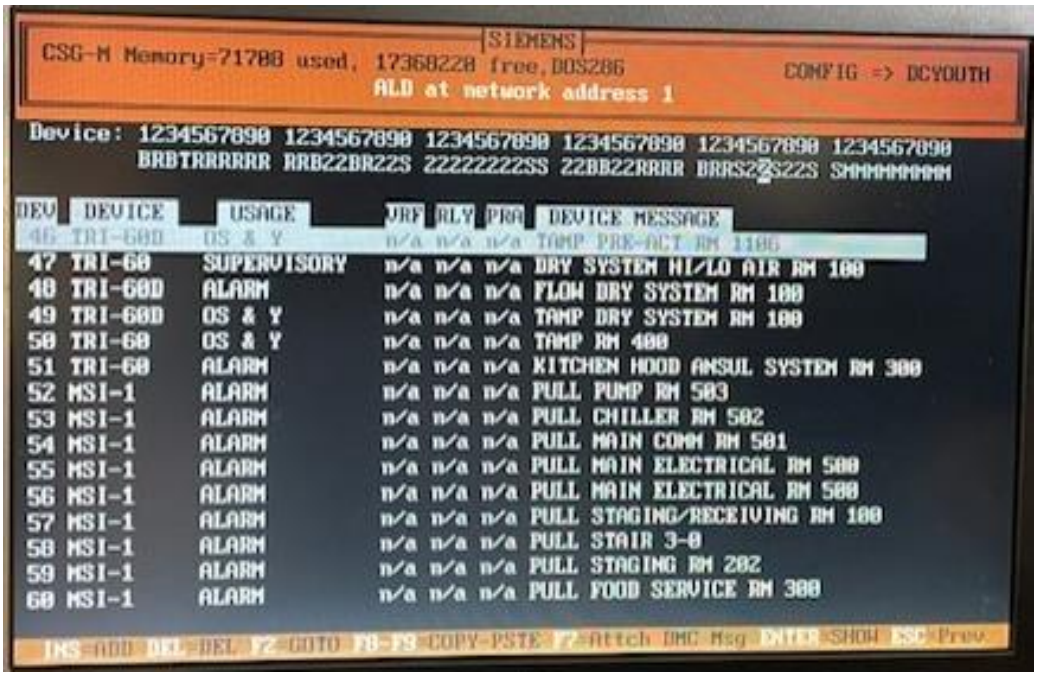
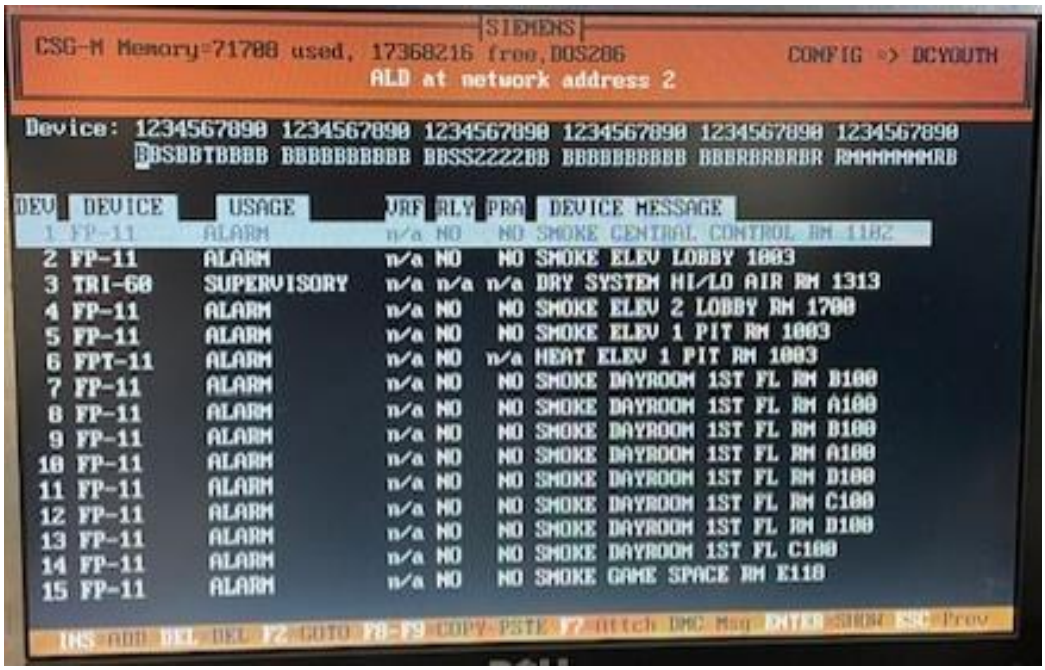
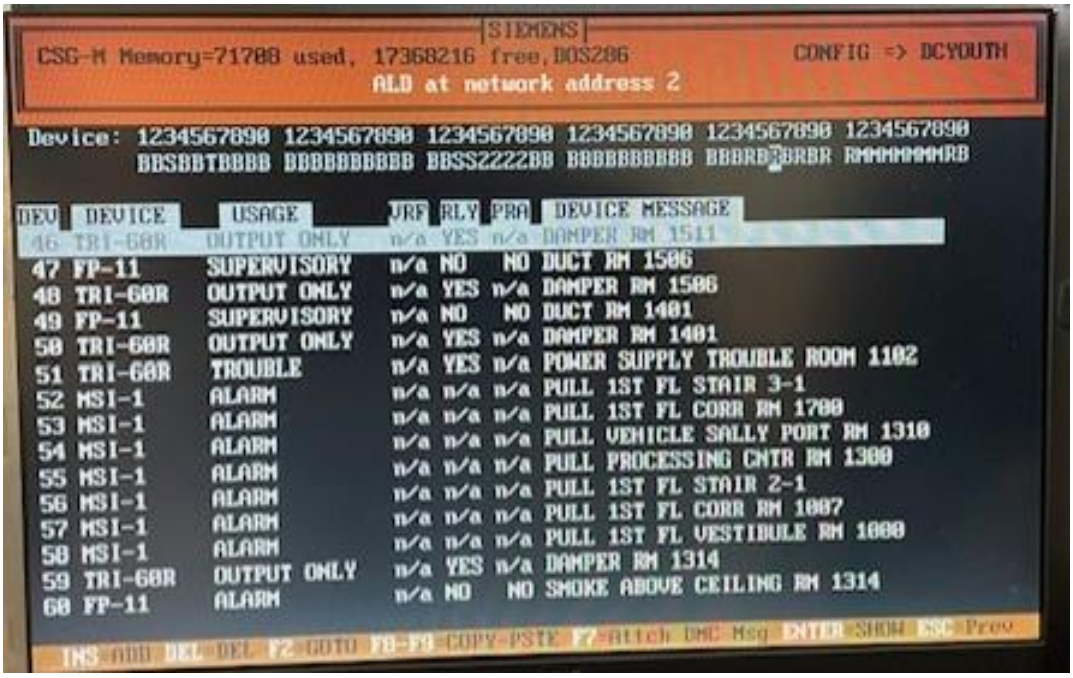
SD	2-20	Multi-purpose E107	1	Siemens	FP-11																
SD	2-19	Game Space E109	1	Siemens	FP-11																
SD	2-09	Day Room 1st Floor B100	1	Siemens	FP-11																
SD	2-07	Day Room 1st Floor B100	1	Siemens	FP-11																
SD	2-11	Day Room 1st Floor D100	1	Siemens	FP-11																
SD	2-13	Day Room 1st Floor D100	1	Siemens	FP-11																
SD	2-15	Game Space E118	1	Siemens	FP-11																
SD	2-16	Multi-purpose E108	1	Siemens	FP-11																
SD	2-17	Multi-purpose E106	1	Siemens	FP-11																
SD	2-14	Day Room 1st floor C-100	1	Siemens	FP-11																
SD	2-12	Day Room 1st floor C-100	1	Siemens	FP-11																
SD	2-22	1sr Floor Corridor E101	1	Siemens	FP-11																
SD	9-15	Electrical Room E103	1	Siemens	FP-11																
SD	2-18	1sr Floor Corridor E101	1	Siemens	FP-11																
MP	2-52	1sr Floor Stair 3-1	1	Siemens	MSI-1																
MP	3-55	1sr Floor Stair 3-2	1	Siemens	MSI-1																
SD	3-34	2nd Floor Corridor E201	2	Siemens	FP-11																
SD	3-37	2nd Floor Corridor E201	2	Siemens	FP-11																
SD	3-10	Day Room 2nd floor B200	2	Siemens	FP-11																
SD	3-08	Day Room 2nd floor B200	2	Siemens	FP-11																
SD	3-38	Game Room E217	2	Siemens	FP-11																
SD	3-35	Multi-purpose Classroom E209	2	Siemens	FP-11																
SD	3-36	Multi-purpose Classroom E209	2	Siemens	FP-11																
SD	3-11	Day Room 2nd floor A200	2	Siemens	FP-11																

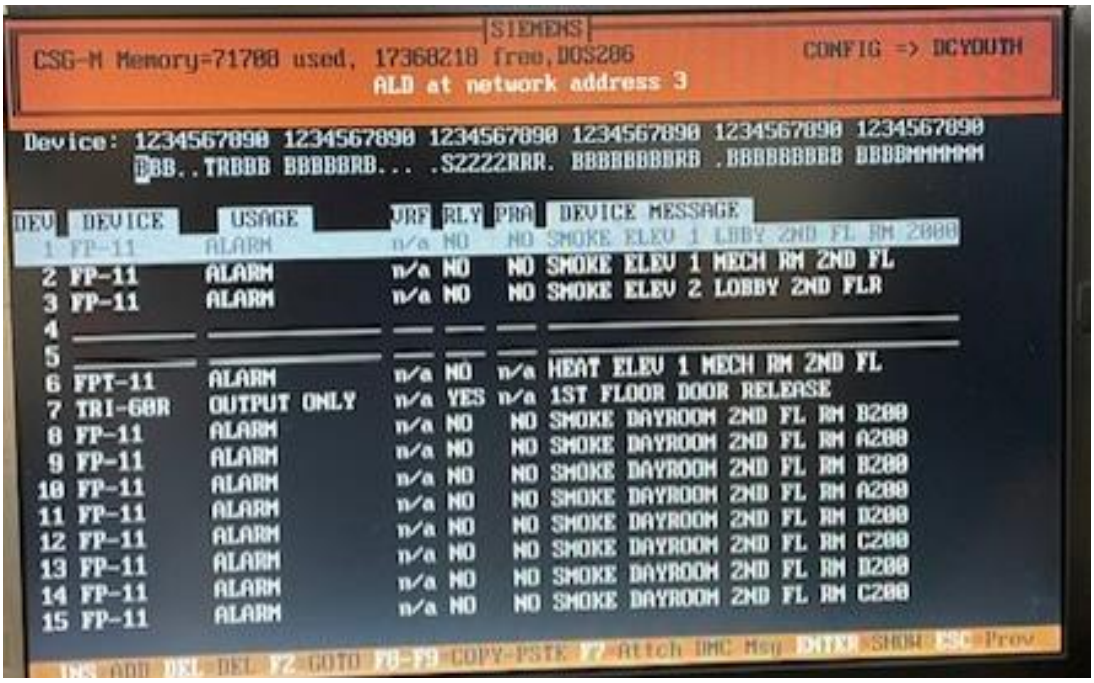
Appendix B – MXL Points List Screenshots

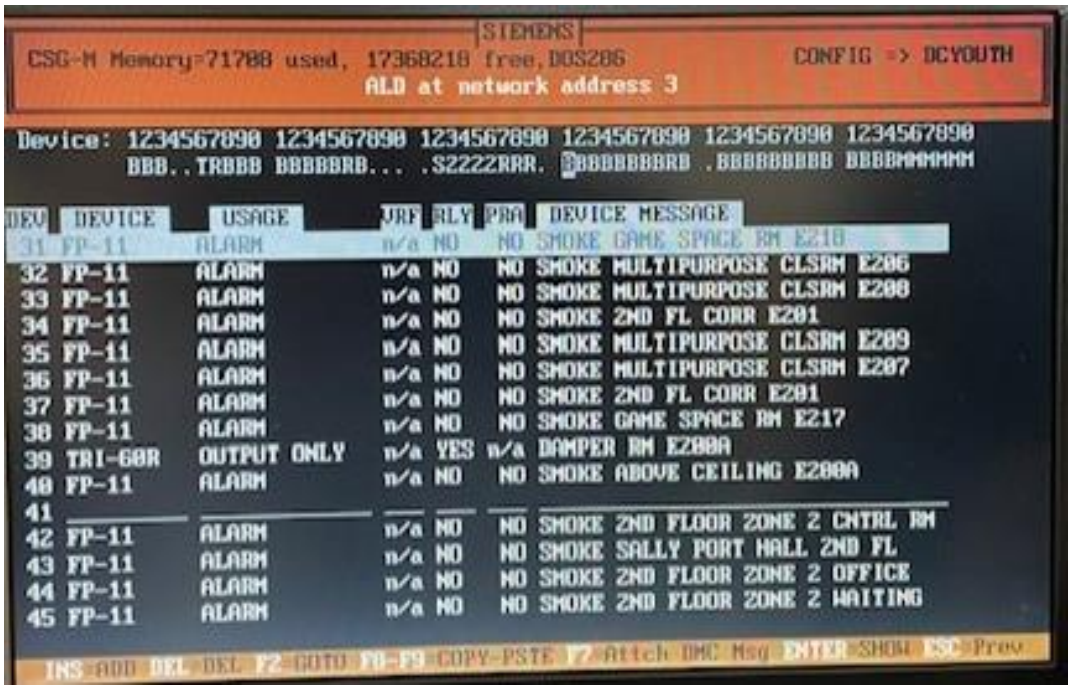


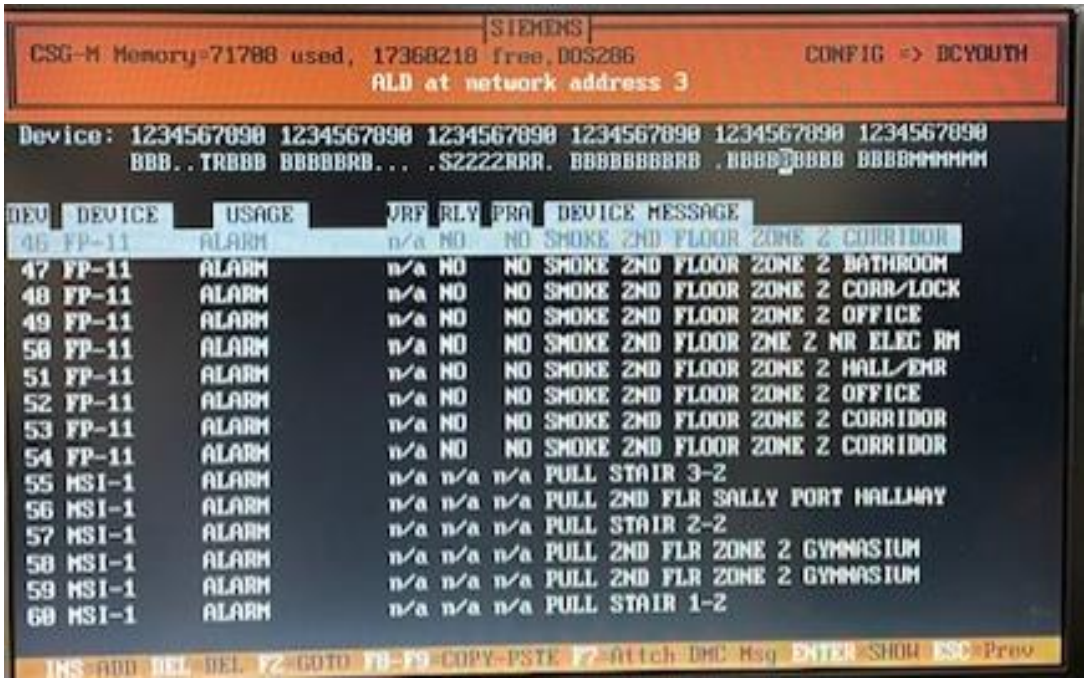


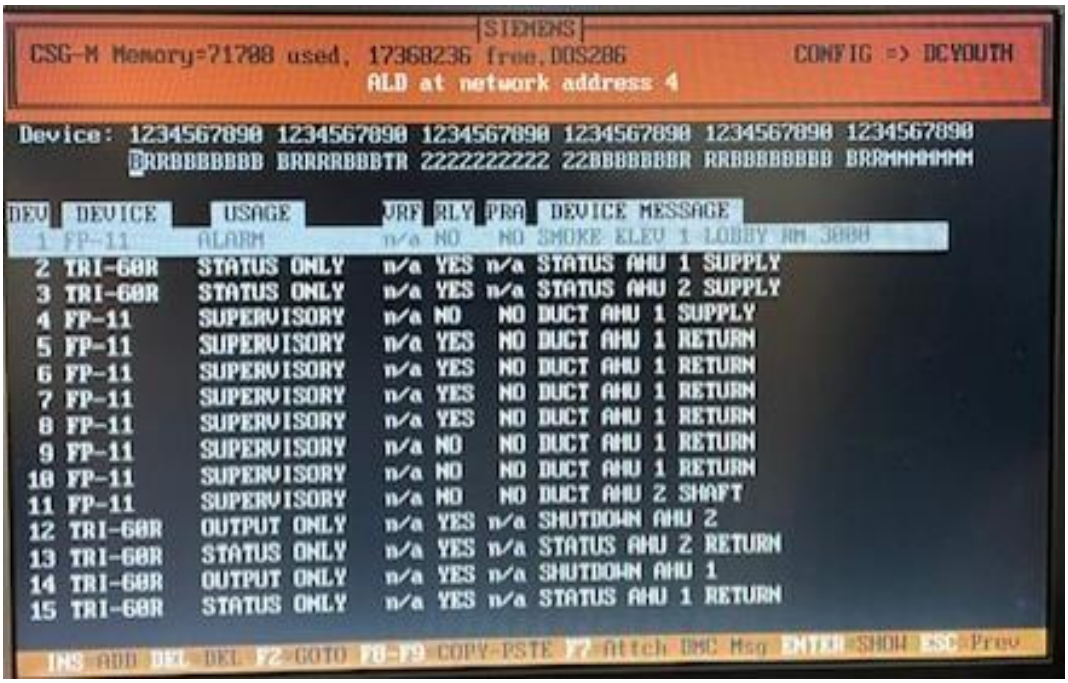


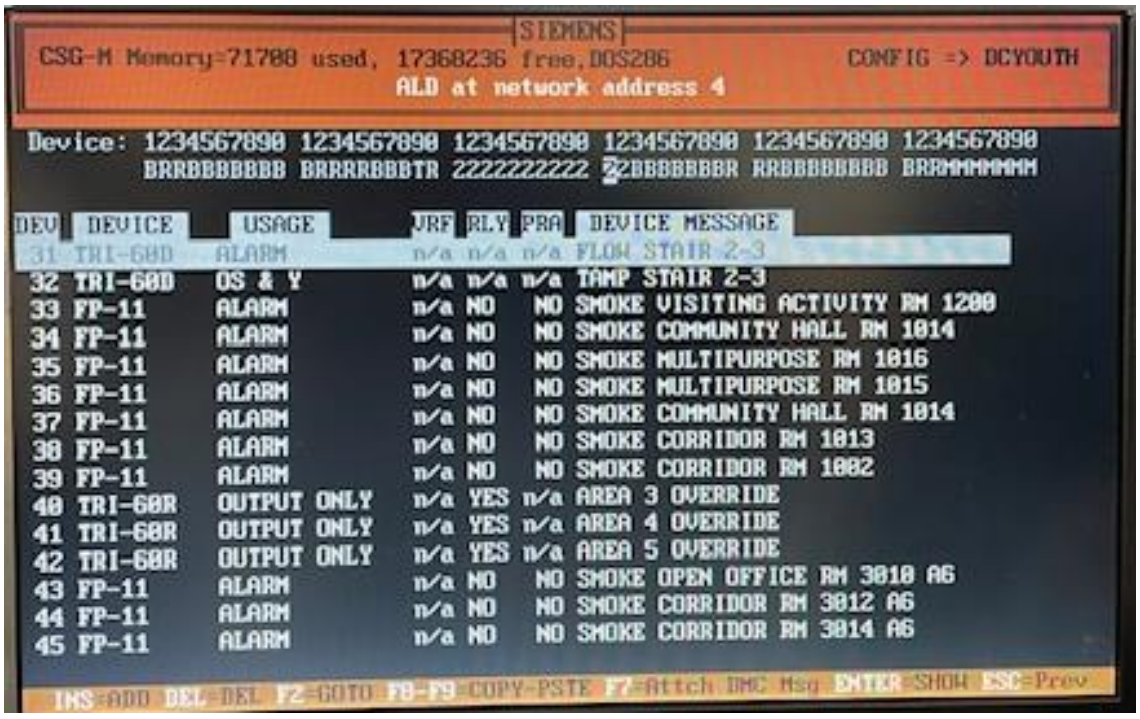


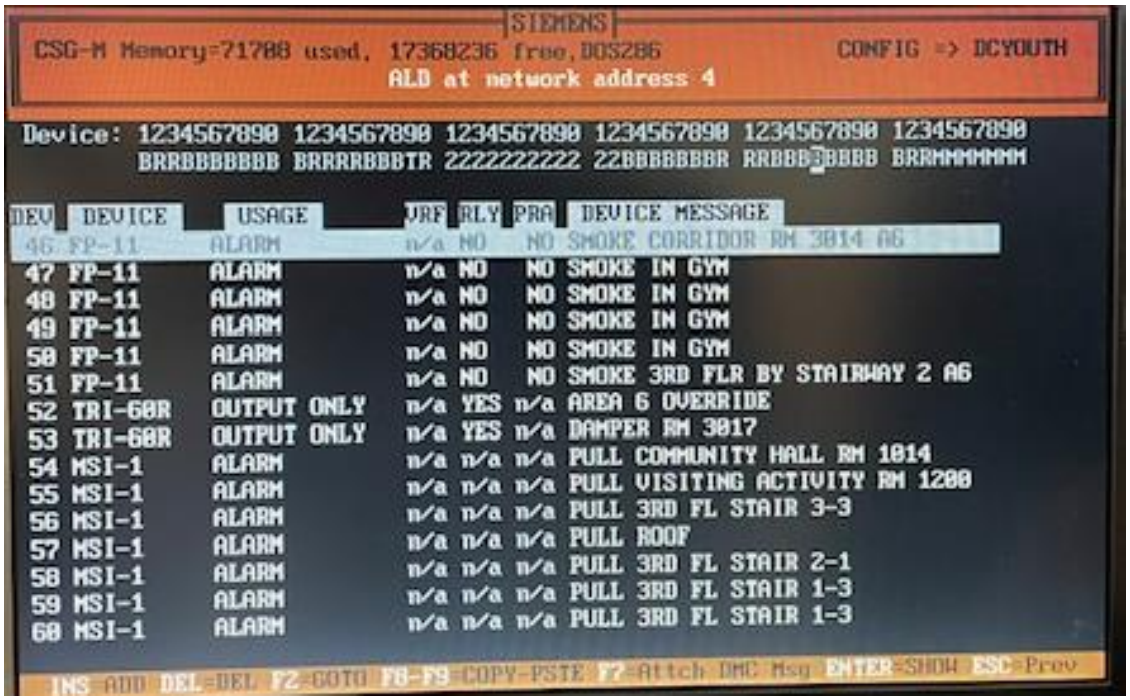


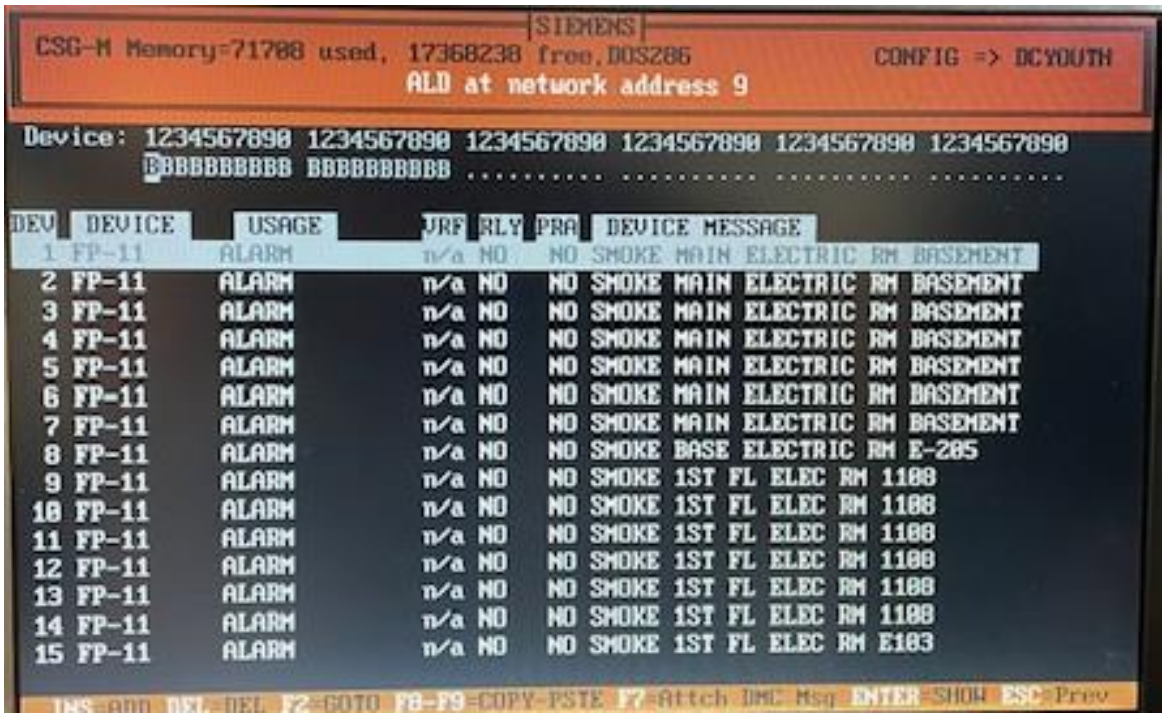


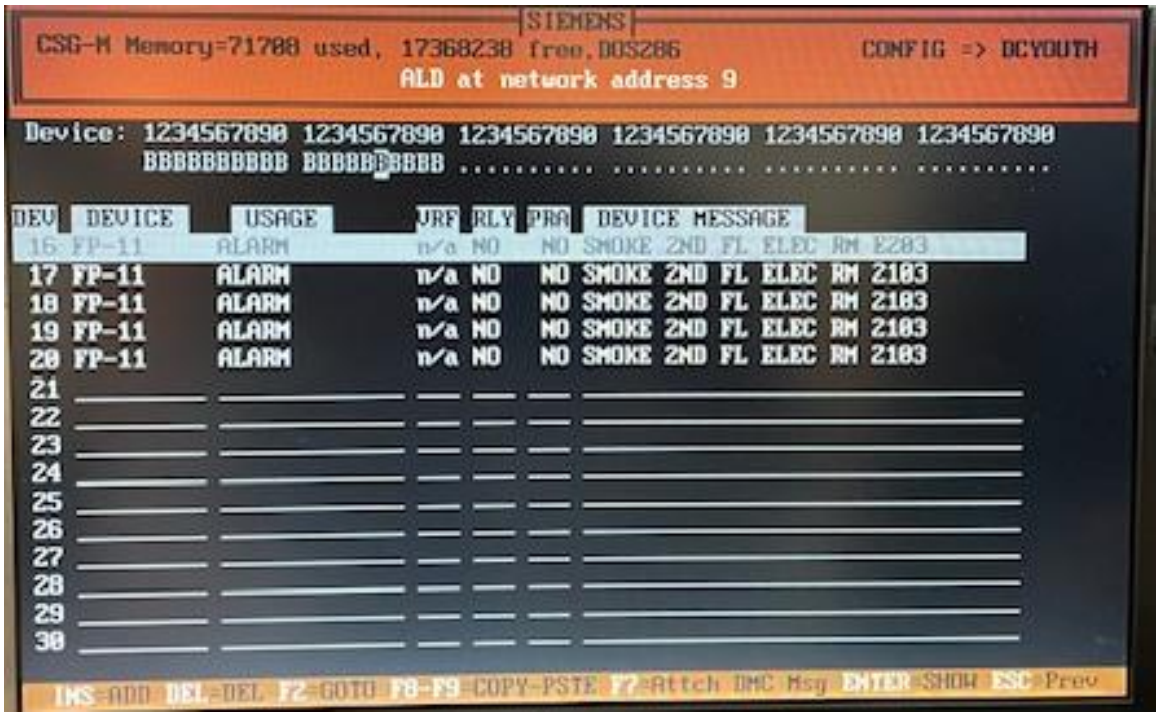












Caras, Mia (EOM)

From: Dudley, Kenneth (DYRS)
Sent: Friday, March 8, 2024 9:59 AM
To: Jordan, Mark (EOM)
Cc: Caras, Mia (EOM); Sidbury, Porche (DYRS)
Subject: RE: Following Up On Assessment of Fire Alarm System at the YSC

Good Morning,

I can make any day work.

Kenny Dudley
Program Manager, Real Estate and Property Management
Department of Youth Rehabilitation Services
Government of the District of Columbia
1000 Mt. Olivet Rd. NE
Washington, DC 20002
Cell: (202)-709-0495
Kenneth.dudley2@dc.gov

From: Jordan, Mark (EOM) <mark.jordan1@dc.gov>
Sent: Thursday, March 7, 2024 12:29 PM
To: Dudley, Kenneth (DYRS) <kenneth.dudley2@dc.gov>
Cc: Caras, Mia (EOM) <mia.caras@dc.gov>; Sidbury, Porche (DYRS) <Porche.Sidbury2@dc.gov>
Subject: Re: Following Up On Assessment of Fire Alarm System at the YSC

Sounds good, thanks Kenny. I'll start the process with Jensen Hughes.

Are there days that do NOT work for you the week of the 18th?

Mark Jordan

Executive Director

Office of Independent Juvenile Justice Facilities Oversight

200 Massachusetts Ave NW, Suite 700

Washington, DC 20001

Office: (202) 545-3067 | Cell: (202) 322-3605

From: Dudley, Kenneth (DYRS) <kenneth.dudley2@dc.gov>
Sent: Thursday, March 7, 2024 12:22 PM
To: Jordan, Mark (EOM) <mark.jordan1@dc.gov>
Cc: Caras, Mia (EOM) <mia.caras@dc.gov>; Sidbury, Porche (DYRS) <Porche.Sidbury2@dc.gov>
Subject: RE: Following Up On Assessment of Fire Alarm System at the YSC

Hey Mark,

That sounds great. Let's proceed with the plan you stated.

Kenny Dudley
Program Manager, Real Estate and Property Management
Department of Youth Rehabilitation Services
Government of the District of Columbia
1000 Mt. Olivet Rd. NE
Washington, DC 20002
Cell: (202)-709-0495
Kenneth.dudley2@dc.gov

From: Jordan, Mark (EOM) <mark.jordan1@dc.gov>
Sent: Wednesday, March 6, 2024 11:30 AM
To: Dudley, Kenneth (DYRS) <kenneth.dudley2@dc.gov>
Cc: Caras, Mia (EOM) <mia.caras@dc.gov>; Sidbury, Porche (DYRS) <Porche.Sidbury2@dc.gov>
Subject: Re: Following Up On Assessment of Fire Alarm System at the YSC

Kenny:

I am writing to follow up on your email below. I understand that you would like to move fast on this assessment, and I share that goal. I have a proposal for you.

I think it would create a conflict of interest for our fire safety experts if DYRS contracted with them, so I think we cannot proceed that way. However, I think it would be possible for our fire safety experts to conduct the inspection and testing if they did so under the current contract they have with this office. This would also have the advantage of DYRS / DGS not having to go through a new contracting process.

Here is my specific offer:

- OIJJFO could pay Jensen Hughes for the inspection and testing of the alarm system and for the production of a report under our existing agreement. Jensen Hughes representatives have indicated that they could do that inspection and testing as early as the week of March 18. They believe the on-site work could be completed in one day. It would include activating the alarms for testing purposes, so YSC facility staff and youth would need to be prepared for that.

- Jensen Hughes would produce a report for our office, which we would make available to you as soon as it was finalized. We have told them that this is a high priority and we are working on an expedited schedule.

We did not anticipate funding this sort of on-site inspection and testing when we formulated our fire safety budget this fiscal year. Nevertheless, this is an important issue and we would like to help resolve it as quickly as possible, so I am willing to fund it and will try to absorb it in our budget. Our office does, however, have additional work that Jensen Hughes is conducting that we need to pay for this fiscal year. If the inspection and testing work ends up creating a budget pressure for us, we might need to request that you cover the relevant portion of the cost of the inspection and testing. We will, however, do everything we can to avoid that situation.

Please let me know if you have any questions about this and whether you would like us to proceed. If so, I'll arrange a call so we can discuss details.

Many thanks.

Mark

Mark Jordan

Executive Director

Office of Independent Juvenile Justice Facilities Oversight

200 Massachusetts Ave NW, Suite 700

Washington, DC 20001

Office: (202) 545-3067 | Cell: (202) 322-3605

From: Jordan, Mark (EOM) <mark.jordan1@dc.gov>
Sent: Tuesday, March 5, 2024 11:44 AM
To: Dudley, Kenneth (DYRS) <kenneth.dudley2@dc.gov>
Cc: Caras, Mia (EOM) <mia.caras@dc.gov>; Sidbury, Porche (DYRS) <Porche.Sidbury2@dc.gov>
Subject: Re: Following Up On Assessment of Fire Alarm System at the YSC

Hi, Kenny.

Thanks for following up. I need to gather some information and speak to our experts and I will be back in touch with you very soon.

Many thanks.

Mark

Mark Jordan

Executive Director

Office of Independent Juvenile Justice Facilities Oversight

200 Massachusetts Ave NW, Suite 700

Washington, DC 20001

Office: (202) 545-3067 | Cell: (202) 322-3605

From: Dudley, Kenneth (DYRS) <kenneth.dudley2@dc.gov>
Sent: Tuesday, March 5, 2024 11:31 AM
To: Jordan, Mark (EOM) <mark.jordan1@dc.gov>
Cc: Caras, Mia (EOM) <mia.caras@dc.gov>; Sidbury, Porche (DYRS) <Porche.Sidbury2@dc.gov>
Subject: RE: Following Up On Assessment of Fire Alarm System at the YSC

Good Morning Mark,

We initially reached out to DGS to provide an alternative fire alarm vendor who would be able to conduct a full inspection of the YSC system. There has been back and forth regarding who will pay for this inspection service as my budget is stretched extremely thin. DGS is reluctant to fund this new inspection service. I have recently moved funding around within my PO's and will pay for this inspection service out of my budget.

DGS still has not provided an alternative fire alarm vendor. Can we solicit to the vendor you had on the call last month? I understand the urgency and we have the funding to act now. If so, please provide their contact information and we will schedule the vendor to conduct a full inspection at their next available date.

Kenny Dudley
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From: Jordan, Mark (EOM) <mark.jordan1@dc.gov>
Sent: Tuesday, March 5, 2024 11:16 AM
To: Dudley, Kenneth (DYRS) <kenneth.dudley2@dc.gov>
Cc: Caras, Mia (EOM) <mia.caras@dc.gov>
Subject: Following Up On Assessment of Fire Alarm System at the YSC

Kenneth:

I am writing to follow up on the independent assessment of the fire alarm you had mentioned last month. Did you proceed with that assessment and, if so, can you tell me where you are in the process?

Many thanks.

Mark

Mark Jordan

Executive Director

Office of Independent Juvenile Justice Facilities Oversight

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