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INSTITUTIONALIZING RESILIENCE: CATASTROPHIC POWER OUTAGE PLANNING FOR CORRECTIONAL INSTITUTIONS

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INSTITUTIONALIZING RESILIENCE: CATASTROPHIC POWER OUTAGE PLANNING FOR CORRECTIONAL INSTITUTIONS

by

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March 2022

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The Federal Emergency Management Agency has invested several years of planning into preparations for long-term power outages in the United States. However, planning for correctional institutions has been missing from most power-outage plans. Therefore, individual jails and prison systems are responsible for building resilient organizations from within. It is unlikely that the United States will require correctional institutions to comply with guidance for federal emergency planning mandates. This thesis focuses on the effects of emergencies in correctional institutions that experienced extended power outages. The research analyzed the emergency planning and response efforts of two significant events and evaluated the impacts on the staff, inmates, and other stakeholders. This thesis found that a failure to prioritize emergency planning in these correctional institutions was the catalyst to poor responses with adverse consequences. Systemic failures in planning for emergencies created the greatest challenges for the institutions. This thesis supports the idea that correctional institutions should consider implementing the behaviors of high-reliability organizations to build resilient institutions in advance of future emergencies. Using the framework that guides high-reliability organizations, correctional institutions should focus on planning for disasters and mitigating failures to improve their response to the most catastrophic of disasters.

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INSTITUTIONALIZING RESILIENCE: CATASTROPHIC POWER OUTAGE PLANNING FOR CORRECTIONAL INSTITUTIONS

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ABSTRACT

The Federal Emergency Management Agency has invested several years of planning into preparations for long-term power outages in the United States. However, planning for correctional institutions has been missing from most power-outage plans. Therefore, individual jails and prison systems are responsible for building resilient organizations from within. It is unlikely that the United States will require correctional institutions to comply with guidance for federal emergency planning mandates. This thesis focuses on the effects of emergencies in correctional institutions that experienced extended power outages. The research analyzed the emergency planning and response efforts of two significant events and evaluated the impacts on the staff, inmates, and other stakeholders. This thesis found that a failure to prioritize emergency planning in these correctional institutions was the catalyst to poor responses with adverse consequences. Systemic failures in planning for emergencies created the greatest challenges for the institutions. This thesis supports the idea that correctional institutions should consider implementing the behaviors of high-reliability organizations to build resilient institutions in advance of future emergencies. Using the framework that guides high-reliability organizations, correctional institutions should focus on planning for disasters and mitigating failures to improve their response to the most catastrophic of disasters.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACLU	American Civil Liberties Union
BOP	Bureau of Prisons
CPAP	continuous positive airway pressure (machine)
DOC	Department of Corrections
DOHMH	Department of Health and Mental Hygiene
DOJ	Department of Justice
FEMA	Federal Emergency Management Agency
HOD	House of Detention
HRO	high-reliability organization
HVAC	heating, ventilation, and air conditioning
ICS	Incident Command System
MDC	Metropolitan Detention Center
NIAC	National Infrastructure Advisory Council
NIC	National Institute of Corrections
OIG	Office of Inspector General
OPP	Orleans Parish Prison
POIA	*Power Outage Incident Annex*
SCBA	self-contained breathing apparatus
SHU	Special Housing Unit

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EXECUTIVE SUMMARY

This thesis characterizes corrections as a discipline consistently operating in unpredictable conditions, under which a failure would create cascading effects with significant consequences for the institutions, staff, inmates, and community. This thesis suggests that correctional institutions implement the principles of high-reliability organization theory to improve organizational resilience and mitigate the cascading impacts of a catastrophic power outage.

In 2005, Hurricane Katrina forced the evacuation of more than 6,000 inmates from Orleans Parish Prison. A failure to prioritize emergency planning was the catalyst to the cascading effects within the institution. Fourteen years later, Metropolitan Detention Center Brooklyn experienced a weeklong power outage that required inmates to shelter in place. A failure to prioritize emergency planning again led to a poor response with adverse consequences.

Even after the Department of Justice and the Department of Homeland Security recommended emergency planning requirements for correctional institutions seeking grant funding, directives were never implemented. As a result, no federal mandates were established that require institutions to plan for emergencies.

In 2019, the Bureau of Prisons required Metropolitan Detention Center Brooklyn to keep 18 specific contingency plans on file; however, a plan for power outages was not one of them. Orleans Parish Prison had no requirements for specific emergency plans. Therefore, the outages at both institutions reflected the effects of missing emergency plans. The outages also offered a snapshot of the immediate impacts an institution may face in a long-term or regional power outage for future planning efforts.

High-reliability organizations (HRO) focus on failures, a preoccupation that allows them always to be in a state of readiness, prepared to detect problems before cascading events lead to a catastrophic emergency. In correctional institutions, such readiness encourages multiple activities, including regular, scheduled staff briefings; practical training courses and exercises for staff; careful hiring of new staff; consistent intake

processes for inmates; secure transports of inmates; accurate classification of inmates; and consistent and adequate sanctioning procedures.

HROs recognize the risk of unexpected failures where operational gaps may exist, including inconsistent management and communication styles. Thus, staff are encouraged to share concerns when policies or protocols may be outdated or inaccurate. HROs believe that the big picture is situational and that withholding information is often a personal choice rather than a tactical one.

HROs aim to achieve internal resilience. Employees are rewarded for correcting small errors before they become larger ones. Resilient HROs accept errors as opportunities to do better in the future. To maintain a reliable culture within an organization, employees need supportive leadership that corrects reported hazards promptly. Moreover, employees need to feel competent in making important decisions, as well as be challenged continuously to seek further improvements or hazards, which builds a culture in the organization that supports resilience and reliability.

Organizations should remain flexible to reorganize and restructure quickly in an emergency, authorizing adaptability in the decision-making process. Decisions cannot be left exclusively to positions based on hierarchy or rank, as the restrictions in decision-making authority during a crisis may have devastating consequences. In emergencies, the frontline staff are more familiar with the infrastructure, inmates, policies, and current operational picture.

This thesis evaluates the five behaviors of HROs that have proven successful in mitigating the impacts of an emergency on organizations and their systems. The five behaviors are translated into action items on which correctional institutions may focus to increase organizational resilience. In correctional institutions, these overlapping practices of HROs would include the following:

- evaluating existing and potential vulnerabilities, which addresses the preoccupation with failure;
- challenging aged theories and protocols within the agency, which addresses the reluctance to simplify;

- discussing plans to maintain a safe environment within the institution, which addresses sensitivity to operations;
- sharing and encouraging lessons learned for staff, which addresses the commitment to resilience; and
- allowing the subject-matter experts to make decisions, without consideration or apprehension due to their rank, which addresses deference to the experts.[1]

Correctional institutions should commit to building resilient facilities in advance of future catastrophic events. A resilient institution would improve safety, emergency planning, and response for staff, inmates, and the organization. Using the framework that guides HROs, correctional institutions can improve their response to the most catastrophic of emergencies. This thesis offers the following five recommendations that require correctional institutions to commit to the practices of HROs:

1. Sensitivity to operations: Maintaining and sharing situational awareness. Staff should expect the unexpected and understand that something could go wrong at any time.
2. Deferring to the experts: Administrative leadership may not be familiar with the operational challenges that officers and inmates face each day. Those working in the units are most familiar with the infrastructure, the inmate population, and the technology. Decisions made by members of an agency based on rank may have devastating consequences in an emergency.[2]
3. Preoccupation with failure: Staff should identify and report any safety failures that require correction, which may include building issues, system

[1] Timothy J. Vogus and Kathleen M. Sutcliffe, "Organizational Resilience: Towards a Theory and Research Agenda," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics* (Piscataway, NJ: IEEE, 2007), 3420.

[2] Patric R. Spence and Tabatha L. Roberts, "High Reliability Organization Theory," in *Encyclopedia of Crisis Management*, ed. K. Bradley Penuel, Matt Statler, and Ryan Hagen (Thousand Oaks, CA: SAGE Publications, 2013), 467, https://dx.doi.org/10.4135/9781452275956.n158.

issues, resource shortages, and training gaps. Institutions should encourage personal responsibility to mitigate emergencies and reward detection and participation in the resolution. Institutions can positively reinforce disaster mitigation and an interest in their emergency preparedness program.

4. Reluctance to simplify: Institutions should challenge old policies and operating protocols that may not align with the agency's vision of improved resilience. Often, aged directives remain in place with an informal understanding that it's "the way it's always been."

5. Emergency plans should be reviewed on a regular basis. They should also be relevant to the agency and applicable to the hazards threatening the institution. Following approval, plans should be shared with frontline staff, in conjunction with proper training and exercise, and be updated annually.

6. Commitment to resilience: Agencies should make safety a top priority. They should always assess the safety of inmates and officers, as well as evaluate the emergency plans and employee training programs. Infrastructure and operational systems should be repaired before small problems become bigger problems.

7. Institutions should consider the adjustment from a reactive to proactive operation an investment in future events. Promoting a culture of preparedness before an emergency strengthens resilience because personnel have learned to adapt quickly to the unexpected. They have received the right training and are well prepared to respond to these crises.

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To all those who helped me along the way, I thank you greatly. There are many to mention along the way, and I could never remember everyone. Jason, Mikki, Mom and Dad, and Shirley and Napi: Thank you for making sure Jaxon and the pups were all accounted for and well cared for. Tammy: Thank you for taking care of the office in my absence. You are the glue that holds emergency management together.

***

In memory of Chief Bradley Liggett, Freeport Fire Department

January 8, 2022

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I. INTRODUCTION

The President's National Infrastructure Advisory Council (NIAC) highlights in its 2018 study that a catastrophic power outage is a far-reaching, long-standing, and high-impact disaster that would exceed the combined experience of all prior modern-day disasters in the United States, by measures of "severity, scale, duration, and consequence."[1] Indeed, experts on the NIAC have argued that all critical infrastructure resources, systems, and facilities would be affected, including water and wastewater systems, communication systems, emergency services, transportation, financial services, healthcare, and commercial facilities.[2] The NIAC has recognized that critical infrastructure sectors require more cross-sector coordination because they share so many interdependencies and that planning measures need to focus on building resilience.[3] The NIAC has also acknowledged the need for a cultural change that emphasizes emergency preparedness and infrastructure resilience to effectively prepare for and respond to a catastrophic power outage.[4] Moreover, the council has recommended cross-sector planning and joint exercises to identify the cascading impacts and unknown interdependencies between sectors, including long-term considerations whereby all other "traditional plans" are overdrawn.[5]

According to Scott Aaronson, vice president of security and preparedness for Edison Electric Institute and member of the NIAC, "If you are simply planning for things

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[1] President's National Infrastructure Advisory Council, *Surviving a Catastrophic Power Outage: How to Strengthen the Capabilities of the Nation* (Washington, DC: Department of Homeland Security, 2018), 3, https://www.cisa.gov/sites/default/files/publications/NIAC%20Catastrophic%20Power%20Outage%20Study_FINAL.pdf.

[2] President's National Infrastructure Advisory Council, 3.

[3] President's National Infrastructure Advisory Council, "Catastrophic Power Outage Study: Quarterly Business Meeting" (presentation, Department of Homeland Security, Washington, DC, September 13, 2018), 9, https://www.cisa.gov/sites/default/files/publications/NIAC%20Catastrophic%20Power%20Outage%20Study_QBM%20Sept%2013_508_final.pdf.

[4] President's National Infrastructure Advisory Council, 11.

[5] President's National Infrastructure Advisory Council, 21.

you already know how to do, that isn't helpful."[6] Robert Walton, with Utility Dive, agrees with the NIAC report that the strategies, resources, and plans currently available will not suffice in a catastrophic power outage.[7] Planning for a catastrophic outage, with unknown and cascading impacts is complex; therefore, Aaronson notes in regards to emergency planning, "The time is now while the skies are blue."[8]

Following the 2003 Northeast blackout in New York City, the Department of Health and Mental Hygiene (DOHMH) assisted with the public health needs of the community. According to senior emergency management, following an employee survey of the event, all respondents listed at least one concern relating to communications during the outage.[9] The protocol in place before the blackout required staff to contact the DOHMH call center to find out whether, where, and when they should report to work.[10] Although the call center was on battery backup to maintain communications, it was inundated with high call volume, and the battery could not support the extended power outage.[11] Several recommendations followed the DOHMH response to the 2003 blackout, including an improved reporting process for employees in emergencies, an employee directory, and training opportunities to ensure staff can utilize the emergency protocols. Additionally, there was a need for telephones that did not rely on electricity and pre-scripted messages for dissemination in emergencies. DOHMH also learned that generator energy was limited to specific equipment during emergencies, so it was critical to create an emergency "backup, paper library of important documents" to improve the response.[12] In the same context, the National Academies of Science, Engineering, and Medicine have warned that

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[6] Robert Walton, "US Unprepared for 'Catastrophic' Power Outage, Presidential Advisory Report Finds," *Utility Dive*, December 12, 2018, https://www.utilitydive.com/news/us-unprepared-for-catastrophic-power-outage-presidential-advisory-report/544028/.

[7] Walton.

[8] Walton.

[9] Mark E. Beatty et al., "Blackout of 2003: Public Health Effects and Emergency Response," *Public Health Reports* 121, no. 1 (January 2006): 41, https://doi.org/10.1177/003335490612100109.

[10] Beatty et al., 41.

[11] Beatty et al., 41.

[12] Beatty et al., 42.

even after the power is restored during such emergencies, cascading impacts persist, as happened in eastern Canada in January 1998 following a devastating ice storm that caused a long-term power outage and killed more than 40 people.[13]

A. RESEARCH QUESTION

What planning strategies could correctional institutions implement to prepare for and respond to long-term power outages and other catastrophic disasters?

B. PROBLEM STATEMENT

As Hurricane Katrina approached the 12 buildings that made up Orleans Parish Prison (OPP) in 2005, more than 6,300 vulnerable and overlooked inmates were abandoned in locked jail cells without food or medical attention.[14] While New Orleans was ordered to evacuate, Orleans Parish Sheriff Marlin Gusman made a televised announcement that OPP would not evacuate.[15] This communication was the only one that inmates received about the plans before the storm wreaked havoc on New Orleans. After Hurricane Katrina made landfall, OPP lost power, and conditions quickly deteriorated. The temperatures became unbearably warm inside the units, and the inmates had to sit in complete darkness at night. As a result of the outage, the ventilation and toilets in OPP did not function

[13] Tom Spears, "The Great Ice Storm of 1998, by the Numbers," *National Post*, January 4, 2018, https://nationalpost.com/news/local-news/the-great-ice-storm-of-1998-by-the-numbers; Lesley-Ann Dupigny-Giroux, "Impacts and Consequences of the Ice Storm of 1998 for the North American North-east," *Weather* 55, no. 1 (2000): 7–15. Approximately five million people in Canada and the United States lost power, and some were without power for as long as 33 days. The power grid in Montreal was down for two to three weeks after the initial storm, and the community was affected. As reported by Dupigny-Giroux in *Weather*, repairing the damage to the power grid in Montreal required the entire business district of Montreal to cease operations for seven days. The National Academies of Sciences, Engineering, and Medicine further note that gas stations in Montreal either ran out of gasoline or could not pump the fuel they had on site. The power outage forced nearly 600,000 people to evacuate, with the support of almost 16,000 military troops directed to support the evacuation and recovery. National Academies of Sciences, Engineering, and Medicine, *Enhancing the Resilience of the Nation's Electricity System* (Washington, DC: National Academies Press, 2017), 98, https://doi.org/10.17226/24836.

[14] National Prison Project of the American Civil Liberties Union, *Abandoned & Abused: Orleans Parish Prisoners in the Wake of Hurricane Katrina* (New York: American Civil Liberties Union, 2006), 29, 39.

[15] National Prison Project of the American Civil Liberties Union, 30.

properly. Any emergency procedures OPP had in place for hurricanes or power outages either were not activated or had failed completely.[16]

When an electrical fire at the Metropolitan Detention Center (MDC) in Brooklyn, New York, caused a partial power outage of the facility on January 27, 2019, more than 1,000 inmates were left in the dark, without heat or water for over a week.[17] Inmates were forced to remain on lockdown after the fire melted a backup generator switch, preventing MDC from transferring over to emergency power.[18] Inmates were not provided additional blankets, even as temperatures outside plummeted to single digits.[19] The inmates could not access their commissary, so they could not purchase additional clothing, such as sweatshirts, to stay warm.[20] Moreover, inmates had limited access to their lawyers and were not allowed to have other visitors.[21]

The agency's response to the outage sparked protests outside MDC and outrage across social media. In a statement following the outage, New York Governor Andrew Cuomo said inmates were "without heat, hot water, or electricity during subzero temperatures" and formally requested an investigation into the conditions of the prison by the Department of Justice.[22] After multiple reports of poor prison conditions, absent leadership, and a delayed response surfaced, several members of the House of Representatives and Senate authored letters to the Bureau of Prisons and the Justice Department's Office of the Inspector General, seeking an investigation into the facility's

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16 National Prison Project of the American Civil Liberties Union, 23.

17 Elizabeth Morales, "Chilling Effect: Brooklyn Detainees Bang on Prison Walls as Temperatures Drop," *Michigan Journal of Race & Law* 24 (March 2019), https://mjrl.org/2019/03/25/brooklyn-detainees-bang-on-prison-walls-as-last-resort-to-be-heard/.

18 "Lawmakers Press for Answers, following MDC BK Heat, Power Outage," Official website of Congresswoman Nydia M. Velazquez, February 6, 2019, https://velazquez.house.gov/media-center/press-releases/lawmakers-press-answers-following-mdc-bk-heat-power-outage.

19 Official website of Congresswoman Nydia M. Velazquez.

20 Official website of Congresswoman Nydia M. Velazquez.

21 Official website of Congresswoman Nydia M. Velazquez.

22 Steve Almasy et al., "Power Restored at Brooklyn Detention Center Where Inmates Had Been Sitting in the Cold," CNN, February 4, 2019, https://www.cnn.com/2019/02/03/us/brooklyn-prison-power-outage/index.html.

conditions and leadership's response to the extended power outage.[23] The Office of the Inspector General responded by opening an investigation into the event response, facility conditions, and the emergency planning and recovery efforts of the Bureau of Prisons and MDC Brooklyn.[24]

Following similar investigations into the faulty emergency response to Hurricane Katrina, Congress enacted the Post-Katrina Emergency Management Reform Act of 2006, in part, to improve disaster assistance for vulnerable populations.[25] Recognizing public safety and security priorities in emergency response, the federal after-action report following Hurricane Katrina recommended that the Department of Justice and Department of Homeland Security coordinate efforts to improve oversight, emergency planning, and technical assistance for correctional institutions in disasters.[26] These recommendations included the establishment of uniform standards and conditions for grants supplied by the two departments.[27] Those recommendations were never implemented, and no federal directives have mandated these institutions develop emergency plans for power outages, thus creating a significant risk for the facilities, personnel, and inmates in the event of an actual power outage. Accordingly, the resulting impacts of the power outages at OPP and MDC provide a glimpse into the effects that a catastrophic power outage would have on correctional institutions in the United States that do not prepare for such emergencies.[28]

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[23] Official website of Congresswoman Nydia M. Velazquez, "Lawmakers Press for Answers."

[24] Department of Justice, Office of the Inspector General, *Review and Inspection of Metropolitan Detention Center Brooklyn Facilities Issues and Related Impacts on Inmates* (Washington, DC: Department of Justice, 2019), https://oig.justice.gov/reports/2019/e1904.pdf.

[25] Post-Katrina Emergency Management Reform Act of 2006, Pub. L. No. 109–295, 120 Stat. 1394 (2006), https://www.hsdl.org/?view&did=468696#page=40.

[26] George W. Bush, "Appendix A: Recommendations," in *The Federal Response to Hurricane Katrina: Lessons Learned* (Washington, DC: White House, 2006), http://library.stmarytx.edu/acadlib/edocs/katrinawh.pdf.

[27] Bush.

[28] The National Infrastructure Advisory Council defines a catastrophic power outage as a widespread, long-lasting power outage occurring with little to no-notice, causing significant and severe cascading impacts to critical sectors, and measuring "beyond modern experience that exhausts or exceeds mutual aid capabilities." President's National Infrastructure Advisory Council, *Surviving a Catastrophic Power Outage*, 3.

Power outages force prisons and jails to operate on borrowed time, so the facilities must immediately activate their protocols for managing the outage, which may require an evacuation.[29] While many institutions have chosen to shelter in place even following evacuation orders for impacted communities, according to the National Sheriff's Association, in the United States, "a jail is evacuated every six to seven weeks."[30] Every facility and every emergency lend a different response scenario.

There is never an optimal time to evacuate and transfer inmates during an emergency. For instance, inmates at the Federal Correctional Complex, Beaumont, sheltered in place during Hurricane Harvey in 2017. The institution had no power, food, water, or reliable communications. In contrast, Hurricane Michael forced the three-day evacuation of 963 inmates from Bay Correctional and Rehabilitation Facility in Panama City when the storm destroyed the rooftops of the buildings and left inmates and staff with no water, sewer, or communications besides a satellite phone.[31] In a cascading chain of events, Hurricane Michael quickly forced Florida's Panhandle into a staffing crisis, displacing almost 300 prison employees and relocating over 5,000 inmates across the state.[32]

As happened at Bay Correctional and Rehabilitation Facility, communications may go down and inmates lose all ability to communicate with the outside world. Expectedly, visitations would be delayed or canceled until the lockdowns are lifted and operations return to normal. Officials may be unable to relay critical public information while families

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[29] "Facilities include prisons, penitentiaries, correctional facilities, farms, training or treatment centers, jails, detention centers, city or county correctional centers, special jail facilities (such as medical or treatment centers and pre-release centers) and temporary holding or lockup facilities." Danielle Kaeble and Mary Cowhig, *Correctional Populations in the United States, 2016*, Bureau of Justice Statistics Bulletin NCJ 251211 (Washington, DC: Department of Justice, 2018), https://www.bjs.gov/content/pub/pdf/cpus16.pdf.

[30] Melissa Anne Savilonis, "Prisons and Disasters" (PhD thesis, Northeastern University, 2013), 12, https://repository.library.northeastern.edu/files/neu:1039/fulltext.pdf.

[31] Eryn Dion, "Bay Correctional Facility Coming Back Online," *Panama City News Herald*, January 14, 2019, https://www.newsherald.com/story/news/disaster/2019/01/15/3-months-after-hurricane-michael-inmates-returning-to-bay-correctional-facility-prison/6296563007/.

[32] Emma Coleman, "How a Hurricane Led New Orleans to Change Its Approach to Criminal Justice," *Pacific Standard*, November 8, 2018, https://psmag.com/social-justice/how-a-hurricane-changed-criminal-justice-policy.

may be unable to reach their loved ones who are incarcerated. Inmates may be unable to attend scheduled appointments or court dates, and some inmate releases may be delayed. Further complicating recovery efforts, correctional institutions in disasters typically go into a lockdown, so the inmates that assist with repairs, cleaning, and preparing food may be unable to work until the lockdown is lifted.[33] As a result, officers may have to cover the duties that inmates typically do under normal operations.

Statistically, those in the greatest need of assistance in disasters are often the same population neglected when local authorities and relief organizations coordinate planning and response efforts.[34] Even though local authorities are best positioned to plan for these vulnerable populations, they are often "underfunded, understaffed, and stretched thin by ongoing health and social service responsibilities."[35] Furthermore, state agencies are often unable to allocate resources to local agencies because the systems are not in place to effectively do so, even with adequate funding and staffing available.[36] Making matters worse, it is sometimes difficult locating the vulnerable populations in a community, without a voluntary registry. However, correctional institutions know where inmates are and what needs they may have in an emergency; the institutions also know that inmates present challenges for emergency planning and response because the incarcerated are a vulnerable population, committed to restricted housing units that are often unprepared to respond to large-scale emergencies.[37]

High-reliability organization (HRO) theory suggests that some accidents are inevitable, but there are strategies to lessen the effects they have on an organization and its systems.[38] This thesis recognizes that these strategies have proven successful in mitigating

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[33] Coleman.

[34] Barry E. Flanagan et al., "A Social Vulnerability Index for Disaster Management," *Journal of Homeland Security and Emergency Management* 8, no. 1 (2011): 3, https://doi.org/10.2202/1547-7355.1792.

[35] Flanagan et al., 3.

[36] Flanagan et al., 3.

[37] Flanagan et al., 6.

[38] Nancy Leveson et al., "Moving beyond Normal Accidents and High Reliability Organizations: A Systems Approach to Safety in Complex Systems," *Organization Studies* 30, no. 2–3 (2009): 228, https://doi.org/10.1177/0170840608101478.

the impacts of an accident when an organization and its systems are highly vulnerable to catastrophic consequences in emergencies.[39] This thesis identifies corrections as a discipline that operates consistently in hazardous and unpredictable conditions, whereby a systemic failure creates cascading effects with significant consequences for the institutions, staff, inmates and community. This thesis proposes that correctional institutions implement the principles of HRO theory to build resilience and develop a culture of preparedness to mitigate the cascading impacts of a catastrophic power outage.

C. RESEARCH DESIGN

This thesis aspires to identify how power outages affect correctional institutions in the United States and what planning strategies administrators could implement to prepare for and respond to long-term power outages and other catastrophic disasters. To accomplish this goal, I examined the consequences of power outages and the vulnerabilities within correctional settings in the United States. Sources of research consisted largely of peer-reviewed academic literature, disaster reports, and government studies.

I used a qualitative approach to research peer-reviewed academic literature on the physical and social consequences of each long-term power outage. I studied power outages that occurred in correctional institutions to assess the consequences of the events on the infrastructure, staff, and inmates. I compared the events by dissecting each institution's emergency plans and evaluating the response and recovery efforts following the initial disasters. I reviewed the physical and social consequences that each case manifested after the disaster through government reports, after-action reports, and academic literature.

After analyzing each case study, I used HRO theory to analyze the culture within the institutions examined.[40] I assessed the pre-disaster conditions and event-specific conditions of each outage, as well as the emergency management interventions, including

[39] Brad Bogue, "How Principles of High Reliability Organizations Relate to Corrections," *Federal Probation* 73, no. 3 (December 2009): 1, https://www.uscourts.gov/sites/default/files/73_3_3_0.pdf.

[40] Michael K. Lindell et al., "Hazard, Vulnerability and Risk Analysis," in *Fundamentals of Emergency Management* (Washington, DC: Federal Emergency Management Agency, 2006).

hazard mitigation, preparedness, and recovery practices.[41] Using the key principles of HRO theory, I proposed strategies that correctional institutions could implement to mitigate the effects of a catastrophic outage based on high-reliability models used in the aviation, nuclear, and healthcare disciplines.

The HRO model centers on a preoccupation with failure, which allows organizations to always be in a state of readiness, habitually prepared to detect problems early on before cascading events lead to a catastrophic emergency.[42] An HRO promotes a culture that is preoccupied with recognizing breakdowns early on. To focus on failures, such an organization looks at near misses as opportunities to prepare for the next disaster. These organizations are mindful that things could go wrong at any time, so they are always focused on safety.[43] Moreover, their early detection of failures allows for easier correction.[44]

Organizations that build a culture providing positive recognition of those who identify these errors encourage the practice among the staff members.[45] In correctional institutions, this principle promotes thorough processes and procedures to ensure the safety of the staff and inmates. It encourages multiple activities, including regular, scheduled staff briefings; practical training courses and exercises for staff; careful hiring of new staff; consistent intake processes for inmates; secure transports of inmates; accurate classification of inmates; and consistent and adequate sanctioning procedures. Likewise, to achieve high levels of redundancy, an organization needs to ensure all members and interdependent partners know safety is the priority and communication is critical.[46]

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[41] Lindell et al.

[42] Bogue, "Principles of High Reliability Organizations," 4.

[43] Bogue, 4.

[44] Bogue, 4.

[45] Bogue, 4.

[46] Patric R. Spence and Tabatha L. Roberts, "High Reliability Organization Theory," in *Encyclopedia of Crisis Management*, ed. K. Bradley Penuel, Matt Statler, and Ryan Hagen (Thousand Oaks, CA: SAGE Publications, 2013), 467, https://dx.doi.org/10.4135/9781452275956.n158.

HROs are sensitive to their daily operations and recognize the risk of unexpected failures where operational gaps exist. Such gaps include inconsistencies in management styles and information sharing. Supervisors in HROs promote communication and encourage their staff to share their concerns to redesign processes that may be outdated or ineffective.[47] They share more information with those who need it, understanding that the big picture is situational, and withholding information is often a personal choice rather than a tactical one.[48] HROs understand that to be sensitive to operations, they must also be sensitive to relationships.[49]

HROs are also reluctant to simplify their strategies and processes. Organizations lose their adaptability as they reduce their complexity, further leading to the loss of situational awareness.[50] Correctional institutions must implement innovative strategies in the face of budget cuts and a world where "fast paced information transfer" is inevitable.[51] For example, many government institutions are tasked with implementing federally mandated "evidence-based practices" without the adequate funding, guidance, or training support; as a result, their implementation goes no further than the "paper" level.[52] In an oversimplified environment, expediency beats rationality.

HROs are dedicated to achieving internal resilience. Staff are committed to the organization and take ownership in correcting small errors before they become larger ones.[53] Furthermore, resilient HROs accept errors as opportunities for learning to do better in the future. To support a reliable culture within an organization, all members also need the backing of the agency to correct anticipated hazards before they create emergencies.[54] Employees need to feel competent in making important decisions, as well as be challenged

[47] Bogue, "Principles of High Reliability Organizations," 6.

[48] Bogue, 5.

[49] Bogue, 5.

[50] Bogue, 5.

[51] Bogue, 5.

[52] Bogue, 5.

[53] Bogue, 5.

[54] Spence and Roberts, "High Reliability Organization Theory," 467.

continuously to seek further improvements or hazards, which builds a culture in the organization that supports resilience and reliability.[55]

HROs also promote interdependence between "individuals and collectives" rather than interdependence in the structure of their organization—because "interdependence in the structure increases the complexity of the organization and possibility for large-scale errors, decreasing the reliability of HROs."[56] Researchers argue that by increasing the interdependence between individuals and collectives, HROs can "facilitate the knowledge creation process, [thus] increasing their reliability."[57]

Finally, HROs encourage their staff to defer to the experts. Organizations should remain flexible to reorganize and restructure quickly in an emergency, authorizing adaptability in the decision-making process.[58] Decisions cannot be left exclusively to positions based on hierarchy or rank, as restrictions in decision-making authority during a crisis may result in devastating consequences.[59] In emergency events within correctional institutions, it is often the correctional officers and unit supervisors that best know the infrastructure, inmates, policies, and current operational picture.[60] They may be best suited to make key leadership decisions affecting the institution in the emergency at the time even if they are typically not the appropriate rank for such determinations.

The limitations of my research reflected the reality that most correctional institutions in the United States have not experienced a catastrophic, long-term power outage, and institutional directives vary by state statute, local ordinance, and agency policy. Further limitations included finding unbiased testimonials that captured the effects disasters have on inmates but were not shaped by human rights groups or responding

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55 Spence and Roberts, 467.

56 Ivana Milosevic, Erin A. Bass, and Gwendolyn M. Combs, "The Paradox of Knowledge Creation in a High-Reliability Organization: A Case Study," *Journal of Management* 44, no. 3 (2018): 1194, https://doi.org/10.1177/0149206315599215.

57 Milosevic, Bass, and Combs, 1194.

58 Spence and Roberts, "High Reliability Organization Theory," 466.

59 Spence and Roberts, 466.

60 Bogue, "Principles of High Reliability Organizations," 6.

agencies involved in the related disasters. Additional limitations included the inability to fully analyze the impacts that catastrophic power outages will have on receiving facilities, personnel, inmates, and communities outside the area experiencing the disaster. Each correctional institution is unique, so fully calculating the probabilities of a catastrophic outage and the impacts thereof requires further study by involved parties.

D. CHAPTER OUTLINE

Chapter II provides a literature review of academic works on the physical and social consequences of long-term power outages and the threats, vulnerabilities, and consequences of long-term power outages impacting U.S. correctional institutions. Chapter II also introduces HROs and principles that guide organizational resilience in high-risk organizations such as correctional institutions. Chapter III explores OPP's response to Hurricane Katrina, including its emergency preparedness, disaster response, and recovery efforts. Chapter IV assesses MDC Brooklyn, a federal institution that experienced a weeklong power outage in 2019. The chapter debriefs the emergency preparedness, disaster response, and recovery efforts following the power outage. Chapter V compares the emergency preparedness, disaster response, and recovery efforts from both case studies through the framework of the HRO theory. Chapter V also summarizes the findings and offers recommendations for transforming correctional institutions into HROs to improve safety and resilience in preparation for a catastrophic power outage or other significant institutional emergency.

II. LITERATURE REVIEW

This literature review explores academic works on the physical and social consequences of long-term power outages. Information regarding the threats, vulnerabilities, and consequences of long-term power outages for U.S. prisons captures long-standing deficiencies that have existed in correctional emergency preparedness. The literature reflects a significant health and safety risk that a catastrophic power outage poses to the facilities, personnel, and inmates associated with the U.S. corrections system.

A. CATASTROPHIC POWER OUTAGES

The Federal Emergency Management Agency (FEMA)'s *Power Outage Incident Annex* (POIA) acknowledges the critical link between Federal Emergency Support Function 13, *Public Safety and Security Annex*, and the need for coordinating relocation and medical services for inmates in the event of a power outage.[61] The annex specifies resource requirements including transportation resources, backup communications, fuel for security vehicles, and law enforcement resources to respond to civil disturbances.[62] However, Dennis Porter, retired deputy sheriff of the Los Angeles County Sheriff's Department, cautions, "It is assumed, and taken for granted, that police and fire would be able to respond to emergencies."[63] According to Porter, most first responders in Southern California live more than 50 miles from work, so they may not be able to get to work during an emergency.[64]

The POIA recognizes that a loss of power will "attract certain criminal activities" due to the loss of food, water, lighting, communications, and other inmate needs provided

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[61] Federal Emergency Management Agency, *Power Outage Incident Annex to the Response and Recovery Federal Interagency Operational Plans: Managing the Cascading Impacts from a Long-Term Power Outage* (Washington, DC: Department of Homeland Security, 2017), 66–79, https://www.fema.gov/sites/default/files/2020-07/fema_incident-annex_power-outage.pdf.

[62] Federal Emergency Management Agency, 66.

[63] Dennis Porter, "Preparing for Widespread Power Outages: What Local First Responders Need to Know," American Military University Edge, May 16, 2016, https://amuedge.com/preparing-for-widespread-power-outages-what-local-first-responders-need-to-know/.

[64] Porter.

through power, and require a "robust law enforcement presence."[65] The World Health Organization reports that disasters lead to an increase in crime and violence for several reasons, including an increase in stress over the loss of property and livelihood, mental health disorders and post-traumatic stress disorder, a disruption in family and community connections, and limited resources for survival.[66] Therefore, even though correctional institutions are classified as critical infrastructure in the National Infrastructure Protection Program and receive minimal mention in the POIA, available planning guidance is fragmented and neglects the dangers of disasters in prisons and jails. According to Schwartz and Barry, "Most jails have not given high priority to emergency preparedness because planning for emergencies does not seem as pressing as day-to-day problems—until there is an actual emergency."[67] Additionally, they believe that some "traditions" of jails and emergency preparedness actually conflict, including management styles, planning processes, and the perception of what emergencies threaten the facility.[68] This body of literature reflects consensus about a significant and ongoing deficiency in the understanding of roles that the Department of Homeland Security and the Department of Justice fill in emergencies in correctional institutions.

B. EMERGENCY MANAGEMENT IN CORRECTIONS

A limited body of literature analyzes emergency management in correctional institutions. According to Sawyer and Wagner, almost 2.3 million people are incarcerated in correctional institutions, including state and federal prisons, juvenile institutions, and local and tribal jails, across the United States.[69] As reported by Melissa Savilonis, "Prisoners are a vulnerable subset of our population . . . [who] require protection during

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65 Federal Emergency Management Agency, *Power Outage Incident Annex*, 22.

66 "Violence and Disaster," World Health Organization, Department of Injuries and Violence Prevention, 2005, https://www.who.int/violence_injury_prevention/publications/violence/violence_disasters.pdf.

67 Jeffrey Schwartz and Cynthia Barry, *A Guide to Preparing for and Responding to Jail Emergencies* (Washington, DC: National Institute of Corrections, 2009), 6, https://s3.amazonaws.com/static.nicic.gov/Library/023494.pdf.

68 Schwartz and Barry, 6.

69 Wendy Sawyer and Peter Wagner, *Mass Incarceration: The Whole Pie 2019* (Northampton, MA: Prison Policy Initiative, 2019), https://www.prisonpolicy.org/reports/pie2019.html.

disasters, as they do not have the capability or freedom to make independent decisions to protect themselves."[70] Flanagan et al. agree that correctional institutions present challenges for emergency planning and response because the inmates are a vulnerable population committed to restricted housing units that are often unprepared to respond to large-scale emergencies, including evacuations and long-term power outages.[71] William Omorogieva adds, "Prison preparedness plans for natural disasters are important because these plans (if implemented) impact the lives of inmates who are left powerless in an emergency."[72]

During a National Institution of Corrections (NIC) 2003 emergency preparedness survey, institutions reported having a "wide range of emergency plans, with close to all DOCs [departments of corrections] having plans for fires, hostage situations, and riots."[73] Still, according to Omorogieva, institutions have lacked planning for natural disasters, and the NIC has recognized the inconsistency of plans across the DOCs.[74] In summarizing a review of DOC plans, Omorogieva notes, "The emergency plans are so dissimilar that some prisons may have no emergency plans at all, while other plans could be anywhere between hundreds of pages to fewer than ten pages."[75] Omorogieva argues that regardless of federal oversight, the actual obstacles that correctional institutions face include a failure to plan specifically for natural disasters, a lack of emergency preparedness training and drills, and challenges implementing the actual plans in an emergency.[76]

Savilonis theorizes that correctional institutions are not prepared for emergencies because the federal government has failed to establish a mandatory policy requiring institutions to conduct emergency planning and provide them with the guidance to then

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[70] Savilonis, "Prisons and Disasters," 17.

[71] Flanagan et al., "A Social Vulnerability Index for Disaster Management," 6.

[72] William Omorogieva, *Prison Preparedness and Legal Obligations to Protect Prisoners during Natural Disasters* (New York: Columbia Law School, 2018), 36, http://columbiaclimatelaw.com/files/2018/05/Omorogieva-2018-05-Prison-Preparedness-and-Legal-Obligations.pdf.

[73] Omorogieva, 36.

[74] Omorogieva, 36.

[75] Omorogieva, 36.

[76] Omorogieva, 36.

prepare for such emergencies.[77] Savilonis has recommended federal oversight to better prepare correctional institutions for disasters: "Prison systems as a whole have not been incorporated into emergency planning efforts, which places the failure on government."[78] Savilonis maintains, "The Federal government needs to better understand the underlying reasons to why this problem exists and what the most effective and practical methods are for addressing it."[79] She contends that "the Federal government has not identified the challenges and needs facing prisons, the ambiguities in existing policies specific to prisons and disasters, the legal requirements for protecting prisoners during disasters, and why Federal policy for protecting prisoners [is] necessary for improving social welfare."[80]

Savilonis and Omorogieva agree that federal guidance is needed for correctional institutions, "specifically for planning for and responding to disasters affecting prisons."[81] Prison officials will find themselves in legal turmoil when inmates are deprived of their basic rights to safe and humane conditions while officials are "deliberately indifferent to prisoner health and safety."[82] Omorogieva warns that the impacts of a large-scale disaster, such as a catastrophic power outage, hurricane, or wildfire, "can threaten the lives of inmates and staff, cost taxpayers millions of dollars, and result in litigation that damages these institutions."[83] Savilonis, on the other hand, questions whether prisoners have these statutory protections during disasters: because there are no federal mandates for emergency planning in correctional institutions, "most prisons do not have comprehensive emergency management plans in place."[84] Omorogieva, disagrees, articulating that although prisoners are not directly noted, several statutes are applicable to emergency planning and response

77 Savilonis, "Prisons and Disasters," 26.

78 Savilonis, 41.

79 Savilonis, 41.

80 Savilonis, 41.

81 Savilonis, 67.

82 Savilonis, 20.

83 Omorogieva, *Prison Preparedness and Legal Obligations*, 34.

84 Savilonis, "Prisons and Disasters," 26.

that "can be interpreted as providing protections and relief to prisoners."[85] Omorogieva also cautions that correctional institutions that are not planning "raise serious Eighth Amendment concerns."[86] However, Savilonis believes that correctional facilities must be "explicitly listed in the Stafford Act, as they are public and private non-profit facilities that provide health and safety services of a government nature."[87]

Today, there is a need for this guidance, but familiarity is minimal, and the guidance is limited, ambiguous, and outdated.[88] Savilonis recalls that the emergency planning guidance available is "lacking in critical information," leaving institutions without meaningful guidance.[89] Savilonis asserts that correctional facilities lack the resources to maintain momentum in prioritizing emergency preparedness in their organizations.[90] Furthermore, as the accessible guidance is not enforceable, it becomes the responsibility of the institution to determine its value in implementation.[91] Savilonis further contends that correctional institutions have not been properly integrated into emergency preparedness efforts because policymakers mistakenly assume they are "self-sufficient" in disasters.[92]

Correctional institutions are reactive by nature: emergencies occur, and responders respond to the event. According to Collis, Schmid, and Tobias, organizations often use "a reactive learning process" to improve their ability to respond to "an undesirable event."[93] Therefore, the concept of planning for such a novel event as a long-term, catastrophic power outage is not customary for emergency responders. In fact, catastrophic power

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85 Omorogieva, *Prison Preparedness and Legal Obligations*, 22.

86 Omorogieva, 18.

87 Savilonis, "Prisons and Disasters," 66.

88 Savilonis, 53. The National Institute of Corrections has created emergency planning guidance for correctional institutions, but agencies do not know it exists, and the guidance is hard to locate on the institute's website.

89 Savilonis, 26.

90 Savilonis, 50.

91 Savilonis, 26.

92 Savilonis, 26–27.

93 Lynne Collis, Felix Schmid, and Andrew Tobias, "Managing Incidents in a Complex System: A Railway Case Study," *Cognition, Technology & Work* 16, no. 2 (2014): 171, https://doi.org/10.1007/s10111-013-0255-x.

outages require planners to forecast the potential cascading impacts and interdependencies seldom explored. The NIC explains that in the past, agencies may not have placed a priority on emergency planning because of complacency in focusing on the daily issues with inmates and operations.[94] The institute questions whether corrections is complacent about natural disasters because it has not been criticized for "how the situation was handled."[95] Savilonis contends that the lack of preparedness in correctional institutions is likely due to the federal government's failure to provide them with "one comprehensive policy" for reference.[96]

Savilonis notes a multitude of concerns surrounding disaster planning in correctional institutions. These concerns include "the standards of care for prisoners, the dispersion of prisoners, records management, staffing shortages, and shortfalls in resources."[97] Disasters that place inmates at risk, Savilonis cautions, "can lead to a violation of prisoners' constitutional and statutory rights" and harm inmates' physical, emotional, and mental well-being.[98] Consequently, institutions in crisis are at risk of operating with insufficient resources, immediately placing the inmates and staff at risk, as seen at OPP during Hurricane Katrina and MDC Brooklyn during a 2019 power outage.

According to Savilonis, investigative reports have concluded that when facilities are not prepared, the adverse impacts include staffing shortages, difficulties managing evacuations, lost records, false imprisonment, physical and emotional trauma, sexual assault, lost or escaped inmates, and inadequate medical care.[99] Twelve years after Hurricane Katrina, 2017 took the title as the most expensive year on record for natural disasters in U.S. history, yet the affected correctional institutions were still unprepared.[100] According to Martinez, Flagg, and Caballero, "All three hurricanes [that year] hit regions

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94 Omorogieva, *Prison Preparedness and Legal Obligations*, 34.

95 Omorogieva, 34.

96 Omorogieva, 34.

97 Savilonis, "Prisons and Disasters," 8.

98 Savilonis, 8.

99 Savilonis, 39–40.

100 Omorogieva, *Prison Preparedness and Legal Obligations*, 38.

that have built prisons in or near potential flood zones."[101] In all three regions, the guidance, planning, and response from correctional institutions were different.[102]

C. HIGH-RELIABILITY ORGANIZATIONS

Few academic works specifically address organizational resilience in corrections; however, there is a body of literature on organizational resilience and disasters in other work environments, including aviation, healthcare, and nuclear power plants. Scholars in support of normal accident theory argue that disasters such as catastrophic power outages are inevitable.[103] Their critics argue that while some accidents may be inevitable, there are strategies to mitigate the cascading effects on organizations and their systems.[104]

Charles Perrow's normal accident theory, described by Collis, Schmid, and Tobias as the theory of "pessimists," "sees adaptive systems as trapped in a downward spiral of complexity, cost and vulnerability."[105] Collis and colleagues challenge the normal accident theory through "resilience engineering," lending an optimistic opportunity for human systems to "examine, reflect, anticipate and learn about their own capacity to adapt to future crisis," thus allowing them to control their systems' ability to "understand, monitor and respond to events and plan for the future."[106] According to Leveson et al., in resilience engineering, safety is "enacted on the front lines by workers who know the details of the technology and who may have to invent new actions or circumvent 'foolish' rules in order to maintain safety, especially during a crisis."[107]

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101 Yolanda Martinez, Anna Flagg, and Andres Caballero, "Prisons and the Deluge," Marshall Project, October 20, 2017, https://www.themarshallproject.org/2017/10/20/prisons-and-the-deluge.

102 Martinez, Flagg, and Caballero.

103 Bogue, "Principles of High Reliability Organizations," 1.

104 Leveson et al., "Moving beyond Normal Accidents," 228.

105 Collis, Schmid, and Tobias, "Managing Incidents in a Complex System," 171.

106 Collis, Schmid, and Tobias, 171.

107 Leveson et al., "Moving beyond Normal Accidents," 228.

Perrow has argued that accidents are inevitable in complex, interactive systems that are "tightly coupled."[108] Leveson et al. explain that under the framework of normal accident theory, accidents allegedly become "normal and inevitable" because workers cannot know everything about the systems in which they operate, yet the framework of HRO contradicts this approach.[109] According to Leveson et al., if normal accident theory were accurate, industries such as aviation, nuclear weapons, and defense would face higher accident rates than they do, recalling there has never been an "accidental detonation of a nuclear weapon in the 60 plus years of their existence."[110]

Perrow's theory suggests that when "unintended or unfamiliar interactions occur between the subsystems," the system breaks down due to a "causal sequence of events that leads to a serious or catastrophic system breakdown."[111] He contends that complex systems are not predictable or manageable like linear systems, leaving the operations vulnerable and the likelihood of accidents inevitable.[112] While Perrow recommends that reducing accidents is accomplished only by "loosening the coupling of subsystems and limiting the level of interactive complexity," Collis, Schmid, and Tobias note that resilience may be more valuable in reducing accidents.[113] A resilient organization should incorporate redundancy into their subsystems, allow the necessary time and resources to respond to emergencies, provide the training and communication necessary to personnel, interface protocols for response, and utilize robust and adaptable emergency plans.[114]

HROs are "ambiguous, continuously evolving, and dangerous in nature."[115] According to Weick and Roberts, as quoted by Milosevic, Bass, and Combs, HROs "require nearly error-free operations all the time because otherwise they are capable of

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[108] Collis, Schmid, and Tobias, "Managing Incidents in a Complex System," 173.

[109] Leveson et al., "Moving beyond Normal Accidents," 229.

[110] Leveson et al., 228.

[111] Collis, Schmid, and Tobias, "Managing Incidents in a Complex System," 173.

[112] Collis, Schmid, and Tobias, 173.

[113] Collis, Schmid, and Tobias, 173.

[114] Collis, Schmid, and Tobias, 174.

[115] Milosevic, Bass, and Combs, "The Paradox of Knowledge Creation," 1175.

experiencing catastrophes."[116] A high-risk organizational system operates as a tightly coupled and interacting system component that experiences complex interactions, which may, if unanticipated, cause "hazardous consequences such as large-scale accidents and fatalities."[117] Using staff education and reinforcement of procedures in daily operations, members of HROs are trained to "act swiftly, yet mindfully, when faced with a potentially dangerous problem."[118] According to Milosevic, Bass, and Combs, "HROs have interdependent, tightly coupled structures necessary for reliable application of current knowledge but are also flexible and able to absorb new insights stemming from non-routine events."[119] HROs must balance the expectation that employees follow strict operational rules with the flexibility for members to identify, question, and participate in the solutions to hazardous environments within the organization.[120] Leveson et al. recommend improving safety by "eliminating and reducing the potential for human error."[121]

High-risk organizations, in such industries as nuclear plants, aviation, and healthcare, experience an elevated probability of accidents occurring, with significant impacts. HRO theory promotes exceptionally reliable performance from high-risk organizations in complex environments, with the expectation that these organizations always anticipate the unexpected and thereby know how to respond to an event. These organizations are "preoccupied with the risk of failure, reluctant to simplify interpretations, sensitive to operations, committed to resilience, and defer to experts."[122] The Berkeley Group, according to Spence and Roberts, has shown that organizations can direct their attention to preventing human error through high levels of redundancy, cultural reliability, and "conceptual slack"—the notion that strategies, technologies, and processes are

[116] Milosevic, Bass, and Combs, 1175.

[117] Milosevic, Bass, and Combs, 1177.

[118] Milosevic, Bass, and Combs, 1175.

[119] Milosevic, Bass, and Combs, 1193.

[120] Milosevic, Bass, and Combs, 1175.

[121] Leveson et al., "Moving beyond Normal Accidents," 233.

[122] Spence and Roberts, "High Reliability Organization Theory," 466.

"negotiated between interdependent members before a course of action is taken."[123] Bogue adds that a flexible organizational structure and communication process, including vertical and horizontal communications, are basic characteristics of HROs.[124] According to Bogue, "resiliency based on learning and norms of respectful interaction facilitate the avoidance of catastrophe."[125]

D. CONCLUSION

Correctional institutions and HROs share several key features, including a dangerous environment, a need for "error-free operations," catastrophic consequences in hazardous events, and a need to respond immediately during an emergency.[126] These similarities suggest that correctional institutions could implement the HRO theory to mitigate the effects of catastrophic disasters and improve the resilience of their organizations and systems.

In the event of a long-term power outage or other catastrophic disaster, correctional institutions often take for granted the critical resources available to them during blue-sky days. Critical resources often overlooked include security, fuel, food, water, and power sources. Furthermore, correctional institutions are reactive by nature. They focus on daily operations, so they often lack comprehensive emergency plans and push emergency preparedness to the side to concentrate on the day-to-day issues of the institution. Moreover, because training and exercise drills do not often correlate with emergency preparedness, correctional staff are unprepared to respond to disasters, albeit their low likelihood of occurrence.

In contrast, HROs are proactive. They are sensitive to operations and preoccupied with safety measures to prevent failures. HROs strive for resiliency, promote training and exercising, and expect staff to prepare for disasters, even if they never experience one. Resilient organizations can sustain their critical operations in crises because they have

123 Spence and Roberts, 466–67.

124 Bogue, "Principles of High Reliability Organizations," 3.

125 Bogue, 3.

126 Milosevic, Bass, and Combs, "The Paradox of Knowledge Creation," 1175.

learned how to adapt before, during, and after an expected or unexpected event.[127] These organizations understand that time management and flexibility are critical, while "assuming the acquisition of resources in a disaster is not realistic."[128] Resilient organizations encourage an environment of knowledgeable and "mindfully organized" staff.[129] In the correctional setting, officers and staff should be encouraged to participate in the continuous development and updating of system performance and safety improvements within the prison or jail, as an investment in the staff becomes an investment in the institution.

[127] Frank Guarnieri and Sebastian Travadel, "Engineering Thinking in Emergency Situations: A New Nuclear Safety Concept," *Bulletin of the Atomic Scientists* 70, no. 6 (2014): 80.

[128] Guarnieri and Travadel, 80.

[129] Timothy J. Vogus and Kathleen M. Sutcliffe, "Organizational Resilience: Towards a Theory and Research Agenda," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics* (Piscataway, NJ: IEEE, 2007), 3419.

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III. ORLEANS PARISH PRISON

Hurricane Katrina made landfall on August 25, 2005, near Miami, Florida, as a Category 1 hurricane and again on August 29 near New Orleans, Louisiana, as a Category 4 hurricane.[130] While the storm was catastrophic, the impact of the collapsing levees following the hurricane decimated New Orleans, flooding over 80 percent of the city.[131] The final cost of Hurricane Katrina and its cascading impacts totaled over $100 billion across Louisiana, Mississippi, and Alabama.[132] More than five million people were without power, some for over two months, and more than one million were displaced.[133] Among those displaced due to flooding and power outages were more than 6,000 men, women, and children housed at OPP in New Orleans.

Contrary to its name, OPP is not a prison. It is comparable to a county jail or correctional complex that holds mostly inmates awaiting trial and those sentenced for misdemeanor cases.[134] Before Hurricane Katrina, OPP consisted of 12 buildings, all located downtown in an area known as "Mid-City," just blocks from Interstate 10 and the Broad Street Overpass.[135] OPP is one mile from the Mercedes-Benz Superdome and three miles from the City Convention Center.[136] With a capacity of 8,500 prisoners and a daily average population of 6,500 before Hurricane Katrina, OPP held more inmates than the largest prison in the United States, the Louisiana State Penitentiary in Angola.[137] This chapter explores the effects of Hurricane Katrina on OPP. It begins with a discussion on

130 Paul Striedl, Jim Crosson, and Leah Farr, *Observations of Hurricane Katrina Lessons Learned* (Association of Contingency Planners, 2006), 4, http://www.disastersrus.org/katrina/ACP_Hurricane_Katrina_Observations.pdf.

131 "Hurricane Katrina," History, November 9, 2009, https://www.history.com/topics/natural-disasters-and-environment/hurricane-katrina.

132 History.

133 Striedl, Crosson, and Farr, *Observations of Hurricane Katrina*, 4.

134 Loretta King to Marlin N. Gusman, Washington, September 11, 2009, https://www.justice.gov/sites/default/files/crt/legacy/2010/12/15/parish_findlet.pdf.

135 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 13.

136 National Prison Project of the American Civil Liberties Union, 13.

137 National Prison Project of the American Civil Liberties Union, 13.

the extent of emergency preparedness conducted at the facility, followed with dialogue regarding the response and recovery efforts OPP executed following Katrina's landfall.

A. BACKGROUND

New Orleans was exceptionally vulnerable to the impacts of hurricanes. The city was long considered "a bowl," susceptible to catastrophic flooding.[138] FEMA knew that Hurricane Katrina could cause more severe devastation than its hypothetical exercises had prepared the stakeholders for.[139] The Department of Homeland Security knew the levee system in New Orleans was in danger of breaching.[140] According to the Senate Committee on Homeland Security and Government Affairs, local and state officials knew as early as 1994 that New Orleans needed to conduct mass-evacuation planning.[141]

The day before Hurricane Katrina made landfall, Mayor Ray Nagin announced the first ever mandatory evacuation of New Orleans, with forecasted winds up to 175 miles per hour and a storm surge of 20 feet of water, anticipated to flood the streets and destroy the city.[142] Mayor Nagin announced that the Superdome would serve as the area "shelter of last resort" for those unable to evacuate the city.[143] While 80 percent of the city would evacuate that day, an estimated 10,000 sheltered at the Superdome, and many more sheltered in place at their homes.[144] The next morning, the levee system that had protected New Orleans from the waters of Lake Pontchartrain began to collapse.[145] Following the levee failures and excessive rain, the city was overtaken by water.[146]

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[138] Senate Committee on Homeland Security and Governmental Affairs, *Hurricane Katrina: A Nation Still Unprepared: Special Report of the Committee on Homeland Security and Governmental Affairs, United States Senate, Together with Additional Views* (Washington, DC: Government Printing Office, 2006), 5, https://www.congress.gov/109/crpt/srpt322/CRPT-109srpt322.pdf.

[139] Senate Committee on Homeland Security and Governmental Affairs, 5.

[140] Senate Committee on Homeland Security and Governmental Affairs, 5.

[141] Senate Committee on Homeland Security and Governmental Affairs, 15.

[142] Omorogieva, *Prison Preparedness and Legal Obligations*, 4.

[143] History, "Hurricane Katrina."

[144] History.

[145] History.

[146] History.

Although Mayor Nagin had issued a critical mandatory evacuation, OPP Sheriff Marlin Gusman disregarded the order, announcing that the inmates would "stay where they belong."[147] Sheriff Gusman defended his decision, responding to critics, "We have backup generators to accommodate any power loss. We are fully staffed. We are under our emergency operations plan."[148] Gusman assured skeptics that the institution was working with local law enforcement and that he intended to "keep our prisoners where they belong."[149]

B. EMERGENCY PREPAREDNESS

The National Hurricane Center had warned government officials of the impacts of such a catastrophic hurricane on New Orleans, including the vulnerability of the levees, floodwalls, and residents, for 40 years before Hurricane Katrina.[150] "Hurricane Pam," a fictional exercise in 2004, had recently provided multiple lessons for their planning efforts before Hurricane Katrina, and many of the same officials who attended the exercise responded to the real hurricane.[151] Notably, they had been cautioned that a storm as significant as Hurricane Katrina would require joint coordination.[152] To continue hurricane planning, the Louisiana DOC attempted to coordinate a meeting with leaders at OPP to discuss their evacuation plan months ahead of Hurricane Katrina. Days before the storm, the DOC offered to assist area facilities with evacuations, but while other institutions

147 Omorogieva, *Prison Preparedness and Legal Obligations*, 4.

148 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 20.

149 National Prison Project of the American Civil Liberties Union, 20.

150 Senate Committee on Homeland Security and Governmental Affairs, *Hurricane Katrina*, 4.

151 House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, *A Failure of Initiative: Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina* (Washington, DC: Government Printing Office, 2006), 2, https://www.congress.gov/109/crpt/hrpt377/CRPT-109hrpt377.pdf.

152 House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, 2.

accepted assistance with pre-storm evacuations of their facilities, Sheriff Gusman passed on all offers for assistance before Katrina's landfall.[153]

Leadership at OPP maintained confidence in its emergency plans and continued to underestimate the capabilities of the incoming storm. It ignored warnings of critical shortages of emergency supplies including food, water, batteries, and flashlights.[154] While others were evacuating on Sunday, August 28, OPP leaders held a preparedness meeting to review their action plan for the incoming hurricane.[155] Instead of heeding calls for evacuations, the Gusman authorized OPP to accept hundreds of adults and juveniles from other facilities when they evacuated before the storm.[156] Conditions inside OPP quickly deteriorated after Hurricane Katrina made landfall on August 29.[157]

OPP leadership had devised no comprehensive emergency plan before Hurricane Katrina.[158] Any plans that OPP may have prepared, including evacuation plans, were not shared with those who needed them, including correctional officers and deputies.[159] Deputies at OPP also had no training or experience in emergency preparedness, which further delayed the institution's response.[160] Remarkably, OPP officials had not received training on principles from the recently circulated FEMA National Response Plan, so new protocols for disaster response and the Incident Command System were foreign to them.[161] As a result, the staff at OPP were unprepared to respond to the catastrophic event. The impacts of the flooding forced Gusman to seek urgent outside assistance once the

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153 Corinne Carey, "New Orleans: Prisoners Abandoned to Floodwaters: Officers Deserted a Jail Building, Leaving Inmates Locked in Cells," Human Rights Watch, September 21, 2005, https://www.hrw.org/news/2005/09/21/new-orleans-prisoners-abandoned-floodwaters#.

154 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 23.

155 National Prison Project of the American Civil Liberties Union, 23.

156 National Prison Project of the American Civil Liberties Union, 23.

157 Carey, "Prisoners Abandoned to Floodwaters."

158 Savilonis, "Prisons and Disasters," 16.

159 "ACLU Report Details Horrors Suffered by Orleans Parish Prisoners in Wake of Hurricane Katrina," American Civil Liberties Union, August 10, 2006, https://www.aclu.org/press-releases/aclu-report-details-horrors-suffered-orleans-parish-prisoners-wake-hurricane-katrina.

160 American Civil Liberties Union.

161 Senate Committee on Homeland Security and Governmental Affairs, *Hurricane Katrina*, 15.

institution could no longer sustain operations. Furthermore, the sheriff's delay in accepting outside support impeded the evacuation from the premises because the DOC had sent its resources to other rescue and recovery missions that had accepted its initial offer for assistance.[162]

Following the evacuations, records requests flooded in to New Orleans' correctional authorities for evidence of emergency plans. Under the Louisiana Public Records Act, the American Civil Liberties Union (ACLU) of Louisiana filed a written request for OPP's emergency plans that were in place at the storm's onset. Through the sheriff's attorney, the request was denied, indicating that the evacuation plans were "underwater" and could not be found.[163] However, according to several correctional officers, even though the institution had to evacuate during flooding in the 1990s, it did not have an evacuation plan on hand.[164] In response to records requests, Sheriff Gusman initially asserted his evacuation plans were lost in the flooding, but in accordance with state law, he eventually released OPP's undated emergency plan, *The Orleans Parish Criminal Sheriff's Office Hurricane/Flood Contingency Plan*, to the ACLU.[165]

The ACLU identified multiple gaps in the plan—Gusman acknowledged them, too—including a failure to identify how to prepare for the impacts of a hurricane on the management of the institution, operations, and inmates.[166] Furthermore, the plan required the sheriff and wardens to coordinate a medical plan for emergencies 24 hours in advance but did not detail the prioritization of this vulnerable population for medical services and evacuations.[167] Nevertheless, the plan mandated an evacuation under emergency orders, with assistance from local agencies, for any building unsuitable for inmates for more than

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[162] National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 23.

[163] National Prison Project of the American Civil Liberties Union, 25.

[164] Carey, "Prisoners Abandoned to Floodwaters."

[165] Ira P. Robbins, "Lessons from Hurricane Katrina: Prison Emergency Preparedness as a Constitutional Imperative," *University of Michigan Journal of Law Reform* 42, no. 1 (2008): 8–9, https://repository.law.umich.edu/mjlr/vol42/iss1/2.

[166] National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 26–27.

[167] National Prison Project of the American Civil Liberties Union, 26.

12 hours.[168] As the plan was missing critical evacuation guidance, it also lacked maps or routes for evacuations.[169] Moreover, there was no mention of training or exercises, staffing needs, or agreements with other facilities. While the plan did acknowledge the need for food, water, flashlights, and bedding, it did not describe the processes that staff would take to secure and provide items to inmates in an evacuation or flood.[170]

C. DISASTER RESPONSE AND RECOVERY

The lack of emergency planning led to a delayed response, resulting in abandoned inmates, lost records, and prisoner violence.[171] Days before Hurricane Katrina reached New Orleans, OPP prisoners lost access to telephones and were unable to communicate with their families.[172] They did not receive information regarding the incoming storm or the status of an evacuation, nor did they know whether they would evacuate or where they would go. When deputies were ordered back to work and instructed not to evacuate the city, under threat of termination, some brought their families to OPP instead.[173] Due to staffing shortages, the guards could not safely conduct security operations, often working in dark areas without additional assistance.[174]

The power went out across New Orleans almost immediately after Hurricane Katrina made landfall.[175] OPP also lost power, consequently relying on generators for power to key systems.[176] The jail's generator could not power all critical systems requiring

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168 National Prison Project of the American Civil Liberties Union, 26.

169 Juvenile Justice Project of Louisiana, *Treated Like Trash: Juvenile Detention in New Orleans Before, During, and After Hurricane Katrina* (New Orleans: Juvenile Justice Project of Louisiana, 2006), 10, https://www.criminallegalnews.org/media/publications/jjpl_treated_like_trash_juvenile_prisoners_affected_by_katrina.pdf.

170 Juvenile Justice Project of Louisiana.

171 Savilonis, "Prisons and Disasters," 16.

172 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 18.

173 National Prison Project of the American Civil Liberties Union, 32–33.

174 National Prison Project of the American Civil Liberties Union, 45.

175 National Prison Project of the American Civil Liberties Union, 32.

176 Carey, "Prisoners Abandoned to Floodwaters."

emergency power, so lights worked, but toilets did not flush.[177] OPP's ventilation systems failed, and cell doors could not open.[178] As the generators, mechanical systems, and electrical systems had been positioned in the basement, all experienced system failures as the facilities flooded after the levees broke in New Orleans.[179] Critical records stored in the basement were also destroyed, which meant that many inmates served more time than they were sentenced.[180] While some generators failed because they had been erroneously positioned in the basement, those not destroyed by the flooding were damaged when unqualified OPP staff attempted to use them.[181]

As generators in each building failed, further disruptions to the inmates' medical care and healthy living conditions were imminent.[182] Medical supplies were destroyed after the first floor of one of the buildings flooded.[183] Some inmates requiring personalized medical assistance or emergency care waited a long time for help while others were completely neglected.[184] As chaos ensued, deputies abandoned inmates in their locked cells, standing in flooded and contaminated waters.[185] They were running out of food and water.[186] Some of the inmates were stranded in flooded cells where the water was chest high.[187] Others carved holes in the walls of their jail cells and broke out windows to improve ventilation because they could not breathe.[188] Prisoners also sought assistance from first responders by making signs and setting their clothing, bed sheets, and mattresses

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177 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 32.

178 National Prison Project of the American Civil Liberties Union, 32.

179 National Prison Project of the American Civil Liberties Union, 32.

180 Savilonis, "Prisons and Disasters," 17.

181 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 26.

182 National Prison Project of the American Civil Liberties Union, 26.

183 National Prison Project of the American Civil Liberties Union, 26.

184 National Prison Project of the American Civil Liberties Union, 39.

185 Carey, "Prisoners Abandoned to Floodwaters."

186 Carey.

187 Carey.

188 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 9.

on fire.[189] More than 600 inmates in the Templeman III building were abandoned as Sheriff Gusman made his request for assistance with evacuations.[190] They stayed locked in their jail cells for an additional four days after flooding started.[191] One correctional officer with over 30 years' experience at OPP called the experience "complete chaos." When asked about the inmates at Templeman III, he replied, "Ain't no tellin' what happened to those people."[192]

The evacuation was a two-part process once inmates were recovered from OPP. Inmates were evacuated under the leadership of the DOC, with assistance from OPP deputies and the National Guard.[193] Before OPP was evacuated, more than 600 prisoners had already escaped, including 260 sex offenders.[194] Gusman had more than 6,500 prisoners left to evacuate.[195] OPP had only three boats available to transport thousands of prisoners and hundreds of deputies and civilians to the Broad Street Overpass.[196] Interstate 10 was submerged, so prisoners sat in rows and waited at the overpass for buses to transport them to other institutions.[197] Inmates were no longer segregated or restrained but intermingled with other inmates, as well as civilian women and children.[198]

From there, prisoners were transported to other facilities across Louisiana.[199] Inmates were eventually bused to other facilities, including Elayn Hunt Correctional Center in Gabriel, Louisiana, where they had to stay on an outdoor field with minimal supervision,

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189 National Prison Project of the American Civil Liberties Union, 9.

190 Carey, "Prisoners Abandoned to Floodwaters."

191 Carey.

192 Carey.

193 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 61.

194 Savilonis, "Prisons and Disasters," 16.

195 Savilonis, "Prisons and Disasters," 16; National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 26.

196 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 26.

197 National Prison Project of the American Civil Liberties Union, 65.

198 Savilonis, "Prisons and Disasters," 16.

199 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 73.

which led to fighting between inmates.[200] Those with outstanding warrants and sex offenders were improperly transported across state lines.[201] Most inmates received inaccurate information about whether to bring their belongings, so they lost everything they had, including photographs, legal documentation, and medication.[202] In November, Gusman returned approximately 1,000 inmates to OPP, housing them in tents built with FEMA funds.[203] The tents were known as "Tent City," intended to serve as a temporary holding site for inmates returning to OPP while the facilities were rebuilt following Hurricane Katrina.[204] Upon return, Gusman anticipated the number of inmates back at OPP would be "somewhere under 4,000."[205]

The American Correctional Association's 2005 winter conference presented speakers focused on emergency planning and evacuations following Hurricane Katrina.[206] Speakers spoke about the importance of advanced planning and evacuation considerations, including mandatory evacuation planning requirements.[207] The key considerations presented to participants included being detailed in the evacuation planning process, identifying locations for sending inmates for transfer, planning alternate routes to destinations for inmate transfers, creating checklists, determining where inmates will be held in an emergency, determining plans for supervising inmates, planning for the provision of inmates' basic needs, and following the plans in place.[208]

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200 National Prison Project of the American Civil Liberties Union, 9.

201 Savilonis, "Prisons and Disasters," 16.

202 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 61.

203 Eve Troeh, "New Orleans Rebuilds Prisons amid Calls for Reform," NPR, November 7, 2006, https://www.npr.org/templates/story/story.php?storyId=6447297.

204 Travers Mackel, "'Tent City' at OPP to Be Torn Down; Inmates Moved," NBC News New Orleans, February 25, 2014, https://www.wdsu.com/article/tent-city-at-opp-to-be-torn-down-inmates-moved/3369190.

205 Troeh, "New Orleans Rebuilds Prisons."

206 Juvenile Justice Project of Louisiana, *Treated Like Trash*, 11.

207 Juvenile Justice Project of Louisiana.

208 Juvenile Justice Project of Louisiana.

By 2008, the inmate capacity at OPP declined to 2,545 due to the loss of six of the original 12 buildings. OPP operated with approximately 450 officers, guarding inmates in several OPP facilities, including the House of Detention (HOD), South White Street, Templeman V, Conchetta Youth Center, Tent City, and Broad Street, where OPP placed inmates on work-release.[209] The HOD was the most populated adult facility, and the eight "pods" that made up the tents became the second-most-populated section within OPP.[210] In 2008, the Department of Justice (DOJ)'s Civil Rights Division initiated an investigation into the conditions of OPP regarding the "violation of the constitutional rights of inmates" in their custody.[211] Findings pertinent to the safety of the facility, staff and inmates indicated significant staffing shortages and the absence of a staffing plan.[212] Whereas professional standards indicate an officer-to-inmate ratio of 1:13, these locations operated at a 1:75 officer-to-inmate ratio.[213] There were multiple reports of staff failing to conduct their daily checks and times when some floors had only one officer oversee more than 140 inmates in the HOD.[214] Additionally, there were reports of only seven officers on each shift for over 580 inmates in the tents.[215]

Further findings of the DOJ's investigation revealed that regardless of the improvements made after Katrina, the buildings were still in poor condition. According to the DOJ, there were "hundreds of maintenance and repair needs, including approximately 60 broken or non-operational toilets, sinks, and drains in the HOD alone."[216] The ventilation and air quality throughout OPP was poor, and the temperature within the inmate cells was often higher than 85 degrees.[217] Mice and cockroaches roamed the buildings,

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209 King to Gusman, 2–3.

210 King, 13–14.

211 King, 1.

212 King, 13.

213 King, 13–14.

214 King, 14.

215 King, 14.

216 King, 21.

217 King, 21.

and layers of dust were visible on the fans.[218] Investigators also noted electrical and chemical hazards, including unlocked electrical panels and improperly stored chemicals.[219] While OPP had an appropriate number of fire extinguishers and reported to conduct fire drills regularly, investigators found that some officers could not open the locked compartments to access fire extinguishers quickly enough.[220] They also noted that OPP did not record their drills.[221] In sum, the DOJ found that OPP had failed to

- protect inmates from harm and serious risk of harm from staff and other inmates; . . .
- provide inmates with adequate mental health care; . . .
- provide adequate suicide prevention; . . .
- provide adequate medication management; . . .
- provide safe and sanitary environmental conditions; and . . .
- provide adequate fire safety precautions.[222]

D. CONCLUSION

For more than a decade, scientists, meteorologists, and other experts cautioned that a significant hurricane would catastrophically harm the city of New Orleans.[223] Opportunities to prepare for potential evacuations were denied months ahead of the storm. On multiple occasions, the leadership of OPP chose not to listen to the warnings of others before and during the disaster, leaving the officers at a dangerous disadvantage. OPP did not have a relevant emergency plan for a catastrophic event such as an evacuation or hurricane; thus, officers responded to an unfamiliar emergency without the proper tools for safety.[224] As the storm approached, OPP staff asked leadership for emergency supplies, and they were denied. By the time the storm hit New Orleans, OPP staff were forced to react hastily to a situation they had never prepared for.

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[218] King, 21.

[219] King, 21–22.

[220] King, 23.

[221] King, 23.

[222] King, 5.

[223] Juvenile Justice Project of Louisiana, *Treated Like Trash*, 9.

[224] Robbins, "Lessons from Hurricane Katrina," 10.

Mayor Nagin issued a historic citywide evacuation order, yet OPP leadership refused to evacuate. Many officers left the city after the issuance of the citywide evacuation, and others deserted their assignments once conditions deteriorated in New Orleans and at OPP. Due to critically low staffing numbers, officers could not move inmates to higher ground out of concern for inmate and officer safety. As a result, inmates were left behind in locked cells, without food, ventilation, or water.[225] In order to breathe, some prisoners broke out windows while others started fires to alert responders that they were trapped inside.[226] Some prisoners stood in flooded waters that reached their chests.[227]

OPP's response to Hurricane Katrina was criticized following the evacuation of prisoners to other institutions; its evacuation process fell short because of significant gaps in planning, preparedness, training, exercising, resource management, and communication. The DOC made several attempts to support the planning process at OPP in the months ahead of Katrina without cooperation from OPP. The middle of the response to a catastrophic disaster is not the time to change course and request assistance when all resources have been allocated to those that asked for them in advance.

Sheriff Gusman later received pressure to release the OPP emergency plans.[228] Upon release, he cautioned the public that plans existed, but they were not intended for a disaster the size of Katrina.[229] He advised the community that OPP had not expected so much water to overtake the city.[230] However, records would later show that issues at OPP were far worse than an insufficient emergency plan. The conditions of the OPP, treatment of inmates, and execution of any response plans were far greater concerns.

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225 Robbins, 8.

226 Robbins, 8.

227 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 9.

228 Robbins, "Lessons from Hurricane Katrina," 8.

229 Juvenile Justice Project of Louisiana, *Treated Like Trash*, 9.

230 Juvenile Justice Project of Louisiana.

IV. METROPOLITAN DETENTION CENTER BROOKLYN

The Federal Bureau of Prisons (BOP) was established in 1930 to oversee then 11 prisons within the federal prison system.[231] By 2021, the BOP managed 122 locations, including MDC Brooklyn.[232] Opened in the early 1990s, MDC Brooklyn is the BOP's largest administrative detention center.[233] Such administrative facilities are "institutions with special missions, capable of holding inmates in all security categories."[234]

MDC Brooklyn comprises two buildings with an overall capacity of about 3,000 inmates.[235] The West Building is a six-floor, 18-unit section housing approximately 1,700 male inmates.[236] Forty female inmates live in the East Building.[237] When the West Building reaches capacity in the Special Housing Unit (SHU), some male inmates move to the East Building.[238] MDC Brooklyn accepts individuals from all security classifications, including those with special medical needs.[239] An average of 52 percent of the inmate population is serving a sentence while the remainder is awaiting trial.[240] The inmates at MDC Brooklyn are often in custody between 120 and 180 days, for a variety of crimes

231 "A Storied Past," Federal Bureau of Prisons, accessed January 31, 2022, https://www.bop.gov/about/history/;jsessionid=091F98035F137CE0192007D55A1820DD.

232 Federal Bureau of Prisons.

233 Wikipedia, s.v. "Metropolitan Detention Center, Brooklyn," accessed January 31, 2022, https://en.wikipedia.org/wiki/Metropolitan_Detention_Center,_Brooklyn.

234 "About Our Facilities," Federal Bureau of Prisons, accessed February 18, 2021, https://www.bop.gov/about/facilities/federal_prisons.jsp;.

235 Michael Santos, "Learn about MDC Brooklyn," Prison Professors, accessed January 31, 2022, https://prisonprofessors.com/learn-about-mdc-brooklyn/.

236 Department of Justice, Office of the Inspector General, *Review and Inspection*, 2.

237 Department of Justice, Office of the Inspector General, 2.

238 Department of Justice, Office of the Inspector General, 2.

239 Department of Justice, Office of the Inspector General, *Remote Inspection of Metropolitan Detention Center Brooklyn*, Pandemic Response Report 21–002 (Washington, DC: Department of Justice, 2020), iii, https://oig.justice.gov/sites/default/files/reports/21-002.pdf.

240 Department of Justice, Office of the Inspector General, iii.

including "terrorism, organized crime, and drug smuggling."[241] On average, the institution operates with 450 personnel, including correctional officers and a warden.[242]

This chapter explores the effects of a 2019 power outage at the MDC Brooklyn. It opens with a discussion on MDC contingency planning requirements set forth by the BOP. The discussion follows with the institution's transition to response and recovery efforts as it worked to remedy the systemic failures and cascading effects that were caused by the power outage.

A. BACKGROUND

On January 27, 2019, at approximately 12:55 p.m., an electrical fire broke out in the mechanical room in the West Building.[243] The fire damaged a priority switch that protected approximately 66 electrical panels in the building.[244] The electrical fire resulted in a power outage throughout areas of the West Building. Immediately, inmates were placed on lockdown.[245] Five MDC employees responded to the electrical fire, each donning a self-contained breathing apparatus (SCBA) before entering the mechanical room.[246] Of the five employees, only one had attended SCBA training, but not one had been fit-tested before the emergency.[247] A subsequent SCBA equipment inventory indicated "several masks were missing and unaccounted for."[248] According to the warden,

241 Department of Justice, Office of the Inspector General, *Review and Inspection*, 2.

242 Department of Justice, Office of the Inspector General, *Remote Inspection of Metropolitan Detention Center Brooklyn*, iii.

243 Department of Justice, Office of the Inspector General, *Review and Inspection*, 5.

244 Department of Justice, Office of the Inspector General, 5.

245 Department of Justice, Office of the Inspector General, 9.

246 J. Ray Ormond, *After Action Report: Partial Electrical and Reported Heating Outage Civil Disturbance, Metropolitan Detention Center, Brooklyn, New York* (Washington, DC: Federal Bureau of Prisons, 2019), 28, https://www.documentcloud.org/documents/20982240-bop-after-action-report-on-2019-freezing-conditions-at-mdc-federal-jail.

247 Ormond.

248 Ormond.

there were no injuries following the fire, but the Office of the Inspector General found staff reports of exposure and treatment for smoke inhalation.[249]

Power went out in the inmate cells, staff offices, visitation, food services, and booking areas of the West Building.[250] The heating, ventilation, and air conditioning (HVAC) system in the West Building was down for approximately two to three hours, but staff restarted the system once the fire was extinguished.[251] The kitchen, along with inmate phones and computers, lost power.[252] According to the BOP's *After Action Report*, the power outage did not affect heating or video surveillance within the building.[253] The outage also spared common-area lighting in the units and elevators.[254]

Inmates received medical attention in their cells.[255] Inmates continued to receive their daily medications, but they could not fill their prescriptions electronically or leave their units to receive daily medications.[256] The x-ray machine in the West Building was not working; however, a second machine was accessible in the East Building if necessary.[257]

MDC Brooklyn canceled all in-person social and legal visitations to eliminate the movement of inmates and ensure the security of the institution during the extended outage.[258] However, it intentionally did not inform the inmates' families, the public, the courts, or attorneys about the restrictions on inmate visitations, admitting it did not find

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[249] Ormond, *After Action Report*, 9; Department of Justice, Office of the Inspector General, *Review and Inspection*, 5.

[250] Department of Justice, Office of the Inspector General, *Review and Inspection*, 4.

[251] Department of Justice, Office of the Inspector General, 6.

[252] Department of Justice, Office of the Inspector General, 4.

[253] Ormond, *After Action Report*, 9.

[254] Ormond.

[255] Ormond.

[256] Ormond, 25.

[257] Department of Justice, Office of the Inspector General, *Review and Inspection*, 5.

[258] Department of Justice, Office of the Inspector General, ii.

such communication necessary.[259] The inmates' families knew that visitations were canceled only after initiating calls to MDC Brooklyn, but staff would not tell family members why.[260] Inmates were prohibited from legal visits until February 3. Remarkably, visits with legal representatives were canceled four hours after reopening following a disturbance outside of the facility that led officers to use pepper spray to disperse the crowd.[261]

MDC Brooklyn and the BOP did not formally issue a press release until six days after the electrical fire, the purpose being to respond to criticism of how they were handling the emergency rather than to inform the families.[262] The inmates, legal representatives, courts, political leaders, inmates' families, general public, and media were left with a number of questions about the condition of the inmates, the status of the power outage, and the building closure.[263] As of Saturday, February 2, information still had not been shared with the public.[264]

B. EMERGENCY PREPAREDNESS

Following a site visit at MDC, Representative Jerrold Nadler described the institution as a "massive failure of proper supervision, a massive failure of planning."[265] MDC Brooklyn did not have an accessible list of contacts needed in an emergency, which directly challenged its ability to maintain communications with stakeholders.[266] Since MDC Brooklyn did not have an active communications plan, community members,

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259 Department of Justice, Office of the Inspector General, ii.

260 Annie Correal, "In Tour of Brooklyn Jail, Officials See 'Nightmare' as Inmates Sit Freezing," *New York Times*, February 3, 2019, ProQuest.

261 Wale Aliyu and Julie Walker, "Lights Turn On at NYC Federal Jail after Days without Power," NBC New York, February 4, 2019, https://www.nbcnewyork.com/news/local/protesters-pushed-back-at-nyc-federal-jail-where-power-out/34627/.

262 Department of Justice, Office of the Inspector General, *Review and Inspection*, ii.

263 Department of Justice, Office of the Inspector General, ii.

264 Department of Justice, Office of the Inspector General, ii.

265 Stephen Neeson, "Power Restored to Brooklyn Jail Where Inmates Went a Week without Heat," NPR, February 4, 2019, https://www.npr.org/2019/02/04/691260314/power-restored-to-brooklyn-jail-where-inmates-went-a-week-without-heat.

266 Ormond, *After Action Report*, 23.

government officials, and inmates responded negatively.[267] MDC officials had not maintained a communications plan, which would have included critical emergency contacts, nor did they have mutual aid agreements in place before the event.[268]

The BOP's *Correctional Services Procedures Manual* required contingency planning for 18 specific emergencies in BOP institutions, including hostage situations, riots, fires, natural disasters, and more, but not power outages.[269] Warden Quay did not prioritize power-outage planning because MDC Brooklyn had generators available within the institution, yet they were out of service because of the electrical fire.[270] The Fire Contingency Plan mentioned only that the public information officer would address the media when the time was appropriate.[271] Additionally, guidance for public information regarding "disruptions to conditions of confinement or visits" was not included in the manual.[272]

MDC Brooklyn did not plan for inmates with continuous positive airway pressure (CPAP) machines in their contingency planning efforts.[273] Fifteen inmates could not use needed CPAP machines during the power outage because the outlets in their cells were non-operational. The DOJ Office of the Inspector General (OIG) recommends that federal institutions maintain plans for inmates in need of a power supply for their medical equipment, including a list of inmates using specialized equipment such as CPAP machines.[274]

MDC Brooklyn activated its emergency response plans and crisis management teams only after receiving intelligence regarding threats of civil disturbance on MDC

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[267] Ormond.

[268] Ormond, 29.

[269] Department of Justice, Office of the Inspector General, *Review and Inspection*, 32.

[270] Department of Justice, Office of the Inspector General, 32.

[271] Department of Justice, Office of the Inspector General, 32.

[272] Department of Justice, Office of the Inspector General, 31–32.

[273] Department of Justice, Office of the Inspector General, 29.

[274] Department of Justice, Office of the Inspector General, 30.

Brooklyn grounds and threats against the buildings, employees, the leadership.[275] Infrastructure security was temporarily hardened to prevent protestors from gaining access, but employees did not lock the main lobby doors of the institution—they had been unlocked for several months.[276] Nevertheless, assessments of MDC Brooklyn noted "security . . . was poor and in need of extensive repairs."[277] In addition to the mechanical systems and HVAC, many other areas of the institution were in disrepair, including doors, gates, and other general equipment.[278]

MDC employees struggled to establish the Incident Command System (ICS) and activate their planning section.[279] Although MDC Brooklyn had assigned four employees to the planning section, they were not fully trained or prepared to take on their responsibilities.[280] A crisis management team member was sent to the MDC to establish ICS for the institution when the MDC planning section could not complete the documentation duties expected of the group.[281] Officers at MDC Brooklyn also experienced challenges with their training and knowledge regarding agency use-of-force protocols.[282] Specifically, they did not have a clear understanding of their policies or their authority on the MDC Brooklyn property.[283] Moreover, the command staff at MDC Brooklyn did not realize they had jurisdiction on their institutional grounds.[284]

A systemic failure in a key mechanical system of the West Building was the result of negligence, and it had cascading consequences. The BOP's after-action review team concluded that repairs and deficiencies to mechanical systems were not often a priority at

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275 Ormond, *After Action Report*, 27.

276 Ormond, 28.

277 Ormond.

278 Ormond, 28.

279 Ormond.

280 Ormond.

281 Ormond.

282 Ormond, 27.

283 Ormond.

284 Ormond.

MDC Brooklyn.[285] Areas housing the mechanical systems were poorly maintained, and systems throughout the institution had been neglected.[286] The HVAC system was also poorly maintained. An inspection of the HVAC system that provided heat to inmates showed that fewer than half of the magnehelic pressure gauges were working, and MDC Brooklyn's hot water circulators were broken or had been removed.[287] MDC Brooklyn's HVAC system had been behind on preventative maintenance for many years.[288]

The Facilities Department was required to conduct an annual inspection of the facility, which would have identified failures in the HVAC system before 2019.[289] Several employees within the Facilities Department did not know how to service the HVAC system, and others excused the servicing and condition of the systems.[290] The West Building had a target temperature of 68 degrees in the winter.[291] However, the temperatures before, during, and after the electrical fire exceeded 80 degrees in some areas and fell well below 68 degrees in others but dropped to 59 degrees just one week before the electrical fire, the cold winter temperatures only magnifying the unresolved HVAC issues.[292] The temperatures in the West Building had long been a problem that required service, but the facility lacked a building management system to monitor and regulate the heating and cooling systems and allow staff to "make corrective adjustments more quickly."[293]

The employees were unfamiliar with the contingency plans for MDC Brooklyn.[294] They were unprepared for the protests just as they were unprepared for the mechanical

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[285] Ormond, 18.

[286] Ormond.

[287] Ormond, 19.

[288] Ormond, 22.

[289] Ormond.

[290] Ormond, 20.

[291] Department of Justice, Office of the Inspector General, *Review and Inspection*, i.

[292] Department of Justice, Office of the Inspector General, i.

[293] Department of Justice, Office of the Inspector General, i.

[294] Ormond, *After Action Report*, 27.

failures, electrical fire, power outage, and cold temperatures.[295] It would be a challenge to determine the exact cause of the electrical fire, but the failures that started at the beginning of January were likely not resolved before the electrical fire occurred at the end of January.[296]

C. DISASTER RESPONSE AND RECOVERY

MDC Brooklyn placed the West Building on lockdown following the electrical fire. In accordance with MDC Brooklyn's fire contingency plan, inmates were immediately sent back to their cells so the staff could conduct an accountability check throughout the institution.[297] The associate warden reported to MDC and notified Warden Quay of the emergency.[298] Staff spent the rest of the first day assessing the impacts of the electrical fire and kept inmates locked down in their cells for the remainder of the day and evening.[299]

The inmates continued to receive adequate medical care during the power outage.[300] All medical concerns were addressed locally within the institution, or at the area hospital.[301] Although inmates complained because they could not request medical treatment or prescriptions through the Trust Fund Limited Inmate Computer System due to the power outage, they could submit written requests for treatment and prescription bottles for refills.[302] Fourteen inmates required electrical outlets for CPAP machines but were not transferred to the East Building until five days after the outage.[303] Notably, three

295 Ormond.

296 Ormond, 18.

297 Department of Justice, Office of the Inspector General, *Review and Inspection*, 22.

298 Department of Justice, Office of the Inspector General, 22–23.

299 Department of Justice, Office of the Inspector General, 23.

300 Department of Justice, Office of the Inspector General, 28.

301 Ormond, *After Action Report*, 26.

302 Ormond. 27.

303 Ormond, 26.

refused the transfer although, out of medical necessity, they needed to move.[304] While there were 74 clinical intervention visits in January, there were 162 in February.[305]

Supervisors at MDC Brooklyn followed the institution's fire contingency plan after the electrical fire and took the necessary steps to safeguard the facility.[306] However, the MDC Brooklyn's plan did not cover power outages, and of the 18 contingency plans that the BOP required, a plan for power outages was not mandatory.[307] Furthermore, the institution's contingency plans did not include "how and when staff should alert and update external stakeholders about significant disruptions that affect [ed] legal and social visits and conditions of confinement."[308] When MDC Brooklyn failed to inform the inmates and the public of the situation, these parties interpreted it as a deliberate action.[309] External stakeholders did not receive critical information about the status of the event or the conditions inside MDC Brooklyn.[310] However, once the BOP made a public statement, it issued conflicting messages, assuring the public that inmates had hot water when they did not.[311]

A failure to communicate led to cascading impacts including significant delays and scheduling conflicts for the courts.[312] The OIG was also concerned, highlighting that the BOP and MDC Brooklyn "did not appreciate the need to provide information about the

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304 Ormond.

305 Ormond.

306 Department of Justice, Office of the Inspector General, *Review and Inspection*, ii.

307 Department of Justice, Office of the Inspector General, 32.

308 Department of Justice, Office of the Inspector General, 53–59.

309 Luke Barr and Christina Carrega, "'Longstanding' Issues at a Brooklyn Federal Lockup Caused Inmates to Freeze for Days: Report," ABC News, September 26, 2019, https://abcnews.go.com/US/longstanding-issues-brooklyn-federal-lockup-caused-inmates-freeze/story?id=65880215.

310 Ormond, *After Action Report*, 5.

311 Barr and Carrega, "'Longstanding' Issues at a Brooklyn Federal Lockup."

312 Ormond, *After Action Report*, 23.

status of legal and social visiting."[313] While the cancelations were not unreasonable, MDC Brooklyn could have prepared an alternative plan for visitations.[314]

The BOP received 128 requests for information from the media during the power outage.[315] The average response to media was 16.2 hours.[316] Several external stakeholders reported that they had not received basic information during the event. Many who collaborated with MDC Brooklyn maintained positive relationships with officials, however the failure to maintain communication caused some to question the honesty of the MDC's operations during the incident.[317] According to the OIG, the "BOP and MDC Brooklyn management did not recognize that failure to provide information could lead external stakeholders to believe conditions inside were dangerous."[318] Their underestimation, combined with gaps in the institution's contingency plans concerning public information about "conditions of confinement" and visitation, aggravated the public and inmates alike.[319] As a result, protests erupted outside the facility, and inmates created disturbances inside.[320]

The dinner served on January 27 was cold due to the emergency response, but reports indicate that all other lunches and dinners were hot when prepared in the kitchen.[321] During non-emergency operations, inmates typically received a cold breakfast, followed by hot meals for lunch and dinner.[322] Due to delays in delivery to inmates in their units—

313 Department of Justice, Office of the Inspector General, *Review and Inspection*, 31.

314 Department of Justice, Office of the Inspector General, 30.

315 Ormond, *After Action Report*, 22.

316 Ormond, 23.

317 Ormond.

318 Department of Justice, Office of the Inspector General, *Review and Inspection*, 31.

319 Department of Justice, Office of the Inspector General, ii.

320 Department of Justice, Office of the Inspector General, ii.

321 Department of Justice, Office of the Inspector General, 27.

322 Department of Justice, Office of the Inspector General, 3.

notably outside the normal delivery process—there were complaints of cold meals upon receipt.[323] Nevertheless, breakfast was served cold on a regular basis.[324]

The following morning, Warden Quay determined which systems were affected and made operational adjustments. Due to the risks posed by low lighting conditions in the West Building, officials increased staffing in each unit by one officer, extended inmates' cell confinement, and locked down SHU inmates for 24 hours a day, eliminating their one hour of physical activity until the power was restored.[325] Since correctional staff could not safely monitor inmate interactions during visitations in low lighting conditions, they canceled all legal and social visitations to mitigate safety concerns.[326] The MDC reportedly held "town hall meetings" with all inmates not classified as SHU the day after the fire to further explain "the situation."[327]

Elected officials began touring the MDC on Friday, February 1, including Congresswoman Nydia M. Velazquez, Congresswoman Carolyn Maloney, and Congressman Jerrold Nadler, where they learned that the outage was near repair but missing a part.[328] Congressman Nadler expressed concerns that officials "lacked urgency in their efforts to restore power."[329] The key system failure causing the most significant cascading impacts for MDC Brooklyn inmates and staff was the HVAC system.[330] Nonetheless, the HVAC system caused temperature irregularities before, during, and after the outage.[331] Ongoing issues with maintaining a temperature of 68 degrees did not affect doors, cameras, emergency lights, fire alarms, priority utilities, or HVAC. While one

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323 Department of Justice, Office of the Inspector General, 27.

324 Department of Justice, Office of the Inspector General, 27.

325 Department of Justice, Office of the Inspector General, 22.

326 Department of Justice, Office of the Inspector General, 22.

327 Department of Justice, Office of the Inspector General, 23.

328 Department of Justice, Office of the Inspector General, 38.

329 Department of Justice, Office of the Inspector General, 38.

330 "Records Shed Light on Troubling Conditions at Brooklyn Metropolitan Detention Center during 2019 Power Outage," American Oversight, February 3, 2021, https://www.americanoversight.org/records-shed-light-on-troubling-conditions-at-brooklyn-metropolitan-detention-center-during-2019-power-outage.

331 American Oversight.

section dropped to 59 degrees the week before the power outage and 64 during the power loss, after the outage, some units rose to more than 80 degrees. Indeed, the power outage was not tied to the HVAC issues.[332]

The standard clothing issued to inmates included t-shirts, jumpsuits, socks, two blankets, and two sets of sheets.[333] They were not issued clothing for cold weather, so only those who could afford to buy their own cold-weather clothing from the commissary had access to it.[334] As a result, inmates typically covered the vents in their cells with cardboard to combat the cold air drafts in the winter although doing so was against the rules.[335] While the biweekly inspections by the warden would require inmates to remove the covers, daily inspections by correctional officers did not consistently enforce the violation.[336] When inmates covered the vents, they made air flow worse for other inmates, and caused damage to the HVAC system.[337]

As shown in Figures 1 and 2, Mayor DeBlasio responded to the imposed restrictions with announcements Saturday evening on Twitter that New York City would be sending blankets, hand warmers, and generators "whether they like it or not."[338] The BOP issued the first press release related to the power outage after Mayor DeBlasio's tweets, announcing that additional blankets were being provided by New York City Emergency Services.[339]

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[332] Department of Justice, Office of the Inspector General, *FY 2021 Performance Budget: Office of the Inspector General Congressional Justification* (Washington, DC: Department of Justice, 2020), https://www.justice.gov/doj/page/file/1246476/download.

[333] Department of Justice, Office of the Inspector General, *Review and Inspection*, 17.

[334] Department of Justice, Office of the Inspector General, 17.

[335] Department of Justice, Office of the Inspector General, 17.

[336] Department of Justice, Office of the Inspector General, 17.

[337] Department of Justice, Office of the Inspector General, 17.

[338] Correal, "Officials See 'Nightmare.'"

[339] Department of Justice, Office of the Inspector General, *Review and Inspection*, 49.

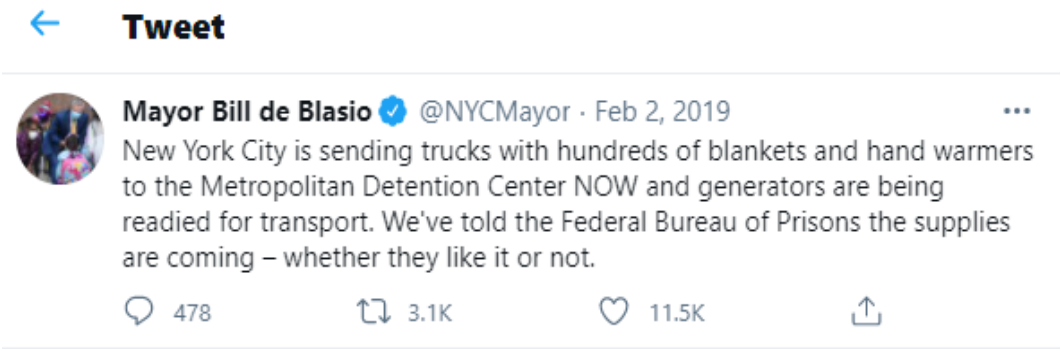

Figure 1. First Twitter Announcement[340]

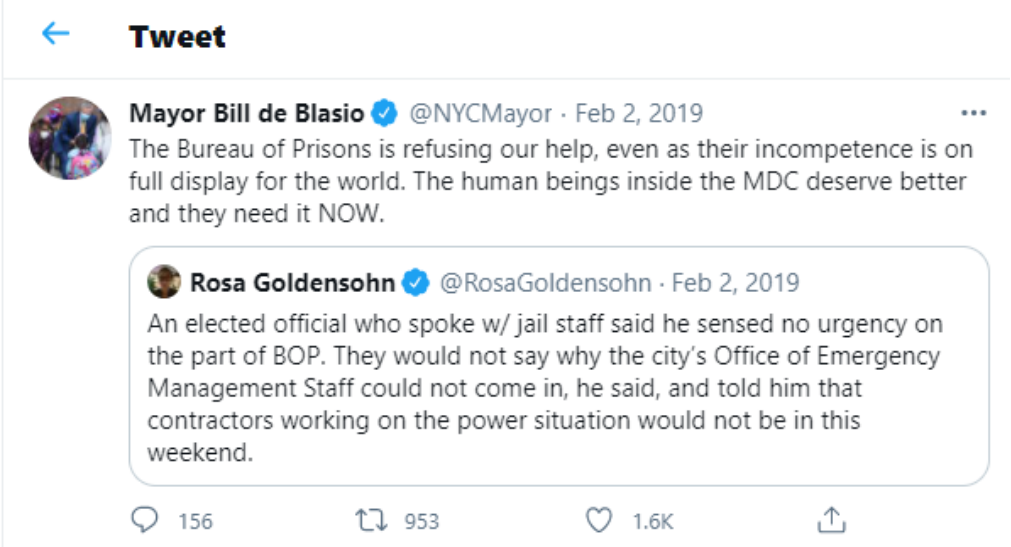

Figure 2. Second Twitter Announcement[341]

Employees were later provided with information about the incident on three conference calls and one staff briefing. The first conference call did not occur until

[340] Source: Mayor Bill de Blasio (@NYCMayor), "New York City Is Sending Trucks with Hundreds of Blankets and Hand Warmers to the Metropolitan Detention Center NOW," Twitter, February 3, 2019, https://twitter.com/NYCMayor/status/1091850564693118976.

[341] Source: Mayor Bill de Blasio (@NYCMayor), "The Bureau of Prisons Is Refusing Our Help, Even as Their Incompetence Is on Full Display for the World," Twitter, February 2, 2019, https://twitter.com/NYCMayor/status/1091795378066911234.

February 2.[342] MDC Brooklyn staff criticized leadership after they received minimal information regarding the event, officer safety, and potential protests.[343]

On Sunday, February 3, the BOP issued a second press release with additional information, including an announcement that legal visits would be available that day.[344] The BOP also reported that it anticipated the power would be restored by Monday, February 4.[345] The DOJ issued a final press release on Sunday evening, announcing that the power had been restored and the facility would return to normal operations.[346]

Following the power outage at MDC Brooklyn, the OIG opened an investigation into the conditions of the facility at the request of the DOJ and Congress.[347] The purpose of the investigation was to determine whether the response by the BOP to the fire and power outage was adequate.[348] The OIG also sought to identify how the outage and electrical fire had affected the inmates.[349] Last, the OIG intended to determine whether the BOP had the appropriate plans in place to address the fire and power outage.[350]

The BOP and MDC Brooklyn risked credibility and public trust by delaying the release of public information.[351] This led to confusion, frustration, misinformation, a lawsuit against the BOP, and an inspection by the OIG.[352] An estimated 30 legal representatives scheduled meetings with inmates each day, and some scheduled meetings with multiple individuals.[353] The after-action review team identified access to legal

342 Ormond, *After Action Report*, 22.

343 Ormond.

344 Department of Justice, Office of the Inspector General, *Review and Inspection*, 50.

345 Department of Justice, Office of the Inspector General, 50.

346 Department of Justice, Office of the Inspector General, 51.

347 Department of Justice, Office of the Inspector General, i.

348 Department of Justice, Office of the Inspector General, 1.

349 Department of Justice, Office of the Inspector General, 1.

350 Department of Justice, Office of the Inspector General, 1.

351 Department of Justice, Office of the Inspector General, 31.

352 Department of Justice, Office of the Inspector General, 31.

353 Ormond, *After Action Report*, 24.

visitations as a critical right that MDC Brooklyn had failed to prioritize during the recovery process.[354]

On Sunday, February 3, a group of 50–60 protestors entered the West Building lobby. MDC staff successfully extricated the protestors through means of force, but 17 MDC officers were injured during the altercation. Protestors entered through a second unsecure entry point hours later. They were removed from the property without issues. Repairs to the priority switch gear were complete that evening, and power was restored. Finally, MDC Brooklyn officers cleared the incident and returned to their assignments.

In hindsight, the BOP director and warden felt they could have communicated earlier with media; however, they questioned why they needed to send proactive messaging when the institution was operating safely.[355] The BOP's staff did not see such "seemingly disruptive events" as warranting the release of public information because they were "ordinary occurrences at BOP institutions."[356] Nevertheless, according to the BOP, the "actions, decisions, and management of MDC Brooklyn was problematic."[357] Several mechanical systems at MDC Brooklyn were "poor and required extensive preventative maintenance."[358]

President Eric Young of the American Federation of Government Employees' Council of Prison Locals issued a statement regarding the MDC Brooklyn fire, calling it "unconscionable" that the inmates and staff experienced a full week of "freezing temperatures and no lights during a polar vortex."[359] Young said the emergency at MDC

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354 Ormond.

355 Department of Justice, Office of the Inspector General, *Review and Inspection*, 37.

356 Department of Justice, Office of the Inspector General, 37.

357 Ormond, *After Action Report*, 29.

358 Ormond.

359 Tim Kauffman, "It's Been a 'Disaster Waiting to Happen' Says Federal Prison Union about MDC Brooklyn," American Federation of Government Employees, February 6, 2019, https://www.afge.org/publication/its-been-a-disaster-waiting-to-happen-says-federal-prison-union-about-mdc-brooklyn.

Brooklyn "did not surprise him in the least," noting that what happened at the MDC was happening at facilities across the United States.[360]

Following the emergency, the OIG determined that while the MDC and BOP maintained the security of the institution during the event, they failed in other areas that could have mitigated several response issues.[361] Therefore, the OIG returned multiple recommendations following their investigation regarding contingency plans, facility conditions, and the response to the fire and power outage.[362] The BOP agreed and resolved all issues to OIG standards.[363]

D. CONCLUSION

Retired MDC Warden Cameron Lindsay warned, MDC Brooklyn "is known among Bureau staff for its problems over the years."[364] Lindsay called MDC Brooklyn "one of the most troubled" of all institutions in the BOP's system.[365] From another perspective, the BOP "underestimated the degree of public interest in the effect of the fire and power outage on conditions at MDC Brooklyn."[366] The BOP's failure to initially share information about the fire and power outage was regarded as "apathy and indifference," only validated further by stakeholder protests and calls for action.[367]

According to the BOP's after-action review team, there were "lapses of basic sound correctional practices" that led to MDC Brooklyn's inability to mitigate, prevent, and respond to an emergency at the institution.[368] The MDC may have avoided the public

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360 Kauffman.

361 Department of Justice, Office of the Inspector General, *FY 2021 Performance Budget*.

362 Department of Justice, Office of the Inspector General.

363 Department of Justice, Office of the Inspector General.

364 Tom Hals, "'Crushing Experience' Awaits Ghislaine Maxwell at Troubled Jail," Reuters, July 6, 2020, https://www.reuters.com/article/us-people-ghislaine-maxwell-prison/crushing-experience-awaits-ghislaine-maxwell-at-troubled-jail-idUSKBN2472LN.

365 Hals.

366 Department of Justice, Office of the Inspector General, *Review and Inspection*, ii.

367 Department of Justice, Office of the Inspector General, 42.

368 Ormond, *After Action Report*, 18.

protests if information had been consistently shared with invested parties.[369] Furthermore, because the MDC did not have a plan in place for civil disturbances, it was unprepared to respond.[370] A failure to maintain transparency led to public mistrust and misinformation.[371] The BOP also concluded the MDC failed to "communicate with its staff, inmates, stakeholders and the courts about the incident."[372]

The electrical fire caused the power outage during a week when New York City faced dangerously low temperatures for an extended period, but MDC Brooklyn would have still experienced unaddressed heating issues that affected the inmates.[373] The weather forecast called for extremely cold temperatures, and the MDC should have known the available cold-weather resources of its inmate population and the capabilities of its HVAC system in extreme temperatures, regardless of the power outage.[374] As a result, the outage highlighted long-standing systemic failures within MDC Brooklyn—in the HVAC system, contingency planning, emergency resources, and communications.

369 Ormond, 29.

370 Ormond.

371 Ormond.

372 Ormond, 29.

373 Department of Justice, Office of the Inspector General, *Review and Inspection*, 11.

374 Department of Justice, Office of the Inspector General, 30.

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V. ANALYSIS, FINDINGS, AND RECOMMENDATIONS

This thesis aspired to identify how power outages affect correctional institutions in the United States and what planning strategies administrators could implement to prepare for and respond to long-term power outages and other catastrophic disasters. This thesis evaluated the theoretical relationship between HRO theory and correctional institutions planning for emergencies. The author researched and analyzed the post-emergency reactions of two different case studies and measured the level of preparedness of each using principles of HRO theory. This final chapter provides a comparative analysis of both case studies, reports findings, and offers recommendations for administrators interested in building a more resilient correctional institution through the application of the five key principles of HROs.

A. COMPARATIVE ANALYSIS

Hurricane Katrina struck New Orleans in 2005, decimating the entire region surrounding OPP. MDC Brooklyn, in contrast, experienced a weeklong power outage in a single building following an electrical fire. While everyone was evacuated from OPP, inmates at MDC remained in place, and operations continued with modifications. This section captures notable similarities and differences between the two institutions during these events.

There were several similarities between OPP's and MDC Brooklyn's response, training, and communication deficiencies. The first similarity was a delay in communications. The institutions both failed to maintain communications with the staff and inmates throughout the emergencies. The MDC's Fire Contingency Plan did not detail institutional visitation or stakeholder communication protocols, so the facility immediately ceased all visitation, including legal visitation. Moreover, following the responses at OPP and the MDC, inmates at both institutions reported an inability to reach their loved ones. Families expressed concern when they were unable to communicate directly with their loved ones or receive information on their welfare. OPP's and the MDC's failure to

maintain communication plans led to added concern and frustration for inmates and their families.

Communication failures challenged the responses in both case studies by delaying resources and causing additional concerns among stakeholders. Notably, MDC contingency plans did not explain "how and when staff should alert and update external stakeholders about significant disruptions that affect [ed] legal and social visits and conditions of confinement."[375] The MDC did not have an emergency list of contacts, so it did not update external stakeholders that sought information during the power outage. Similarly, OPP turned down several opportunities to meet with external partners in advance. It rejected critical resources offered for evacuation support, but called for outside assistance only when it needed to evacuate the inmates from the facility for life-threatening building conditions. Likewise, at MDC Brooklyn, leadership turned down blankets for its inmates when it was criticized for improper temperatures in the inmates' cells. The City of New York took to social media to advocate public support and used political positioning to take a stance against MDC Brooklyn. The City refused to take no for an answer, so MDC Brooklyn accepted the blankets.

The second similarity between the institutions was the lack of training for their personnel. Officers at each institution were unfamiliar with their emergency plans, duties within the plans, and agency policies. As a result, OPP requested that the DOC lead evacuations. Leaders, supervisors and officers at MDC Brooklyn were unclear about their own jurisdictional authority.[376] Also, the officers at OPP and MDC Brooklyn struggled with standard emergency equipment due to poor training. At OPP, unqualified officers damaged generators while trying to restart them.[377] At MDC Brooklyn, five employees responded to the initial electrical fire, and while all donned SCBA before entering the scene of the fire, only one was trained and no one was fit-tested.[378]

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375 Department of Justice, Office of the Inspector General, *Review and Inspection*, 53–59.

376 Ormond, *After Action Report*, 27.

377 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 26.

378 Ormond, *After Action Report*, 28.

There were also differences in emergency planning between OPP and MDC Brooklyn. The first key difference between the case studies was the development and existence of emergency plans. MDC Brooklyn maintained an emergency plan that had 18 contingency plans in place for specific emergencies, including fires, while OPP lacked a comprehensive emergency plan altogether. Furthermore, while MDC Brooklyn's emergency plans lacked power-outage planning, OPP plans fell short in planning for hurricanes.[379] OPP's emergency plan also detailed 24-hour emergency medical planning without detailing medical services and evacuations for inmates with medical needs.[380] Its plan also required emergency evacuations of any area deemed unfit for inmates beyond 12 hours.[381]

The second difference between OPP and MDC Brooklyn was the execution of their emergency plans. Supervisors at MDC Brooklyn followed their institution's fire contingency plan after the electrical fire and took necessary steps to safeguard the facility.[382] While the BOP did not require MDC Brooklyn to have a plan for power outages, the facility utilized its fire contingency plan exclusively.[383] In comparison, OPP's Sheriff Gusman operated under *The Orleans Parish Criminal Sheriff's Office Hurricane/Flood Contingency Plan*.[384] While the plan may have existed, it was reportedly not provided to responding officers or supervisors.[385] Furthermore, leadership ignored the protocols it placed within its emergency plan.[386] OPP's emergency plan also mentioned emergency resources such as food, water, flashlights, and bedding but did not describe the

379 National Prison Project of the American Civil Liberties Union, *Abandoned & Abused*, 26.

380 National Prison Project of the American Civil Liberties Union.

381 National Prison Project of the American Civil Liberties Union.

382 Department of Justice, Office of the Inspector General, *Review and Inspection*, ii.

383 Department of Justice, Office of the Inspector General, 32.

384 Robbins, "Lessons from Hurricane Katrina," 8.

385 American Civil Liberties Union, "Horrors Suffered by Orleans Parish Prisoners."

386 Robbins, "Lessons from Hurricane Katrina," 8.

process for procuring or allocating the resources in an emergency.[387] When staff requested emergency resources before the storm, leadership denied their request.

In sum, the case studies offer examples of how two institutions responded to two different emergencies with two different levels of complexity. By creating a resilient organization, each institution could be prepared for either emergency. The next sections extract these variables into findings and recommendations for correctional institution administrators.

B. FINDINGS

Whether a local-level case study such as Hurricane Katrina at OPP or a federal-level case study at MDC Brooklyn, each offers several lessons in correctional emergency management. This section focuses on findings for leaders at all levels of corrections. Evidently, while the disasters and institutions were very different, most of the gaps in their emergency management processes remained the same.

1. Communication Creates the Foundation on Which a Disaster Response Is Built.

Communication plans are often deficient or nonexistent in corrections, essentially leaving institutions with a poor foundation of emergency management. It is infeasible to build a resilient organization on a weak foundation that is missing a communications plan. Communication plans establish dialogue, and open lines of communication improve the coordination of resources in an emergency.

In New Orleans, agencies offered to work with OPP before Hurricane Katrina made landfall. The DOC spent several months reaching out to OPP to discuss hurricane planning and resource management, but it was repeatedly turned away. The DOC also offered to assist with evacuations as Hurricane Katrina made landfall, but OPP leadership turned down the offer, insisting inmates would not evacuate. By the time OPP leadership eventually called the DOC for emergency assistance with evacuations, its resources were nearly depleted.

[387] Juvenile Justice Project of Louisiana, *Treated Like Trash*, 10.

In Brooklyn, Mayor DeBlasio's office used social media to react publicly to the power outage at MDC, after nearly a week of silence from MDC and BOP leadership.[388] The mayor announced that the city was sending blankets, generators, and hand warmers to the MDC with no intention of taking the items back.[389] It was not until the mayor sent the message that the BOP issued the first press release related to the power outage.[390]

Communication plans require content that is easy to train and easy to access. As noted at OPP and the MDC, many staff members could not locate their emergency plans. Many also reported they did not know the institution emergency plan existed nor had they received any training regarding the plan. MDC Brooklyn, for example, had no communications plan, so the staff did not know when or how information would be provided. They did not receive information from the MDC or BOP until a conference call on the same day that the public received a press release. This lack of communication placed officers in a potentially dangerous position with inmates inside and protestors outside as the week progressed.

2. The Whole-Community Approach to Emergency Planning Is Undervalued in Correctional Institutions.

Both cases suggest that local and federal levels of corrections are not collaborating with the organizations that represent their communities. As a result, correctional institutions are missing an opportunity to ensure their emergency plans align with surrounding agencies and pool resources with them for an emergency. A whole-community approach requires a correctional institution to step outside its organization if it wants to build a resilient agency. Its resilience is defined by how it mitigates hazards. If it works with community partners to plan for emergencies, it further strengthens its hazard mitigation plans. However, hazard assessments cannot be conducted within an organization without the consequences experienced by OPP and MDC Brooklyn.

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388 Correal, "Officials See 'Nightmare.'"

389 Correal.

390 Department of Justice, Office of the Inspector General, *Review and Inspection*, 49.

OPP worked in a silo as the flooding grew out of control in the facility during Hurricane Katrina. Hazard mitigation plans had warned leaders of the dangers that a Category 5 hurricane would have on New Orleans. Mayor Nagin and others preemptively issued orders to protect citizens and evacuate the city, and weather reports warned of the incoming threat. If OPP and city officials had planned before the possibility of Hurricane Katrina, and OPP heeded the citywide order, they might have mitigated the delay in evacuations. Furthermore, meetings between OPP and the DOC in advance of Hurricane Katrina might have mitigated injury, illness, escape, and staff walkouts.

3. Emergency Planning Has Minimal Value If the Ones Who Respond Do Not Receive Training.

Leaders at OPP and MDC Brooklyn failed to train their staff on emergency plans in their institutions. Supervisors at MDC Brooklyn activated the correct emergency plan for their power outage, but their officers were unfamiliar with the plan.[391] For example, several employees responded to an electrical fire in the mechanical room and donned SCBA masks as they were required to do, but only one was properly trained, and none were fit-tested. Likewise, in New Orleans, deputies received no training on emergency planning before Hurricane Katrina.[392] Several employees reported there was no emergency plan while others reported that if one existed, they did not know where it was.[393] This caused a delay in response, violence, escapes, and medical issues.

In conclusion, the case studies looked significantly different from the outside. Dissecting them with an emergency management lens revealed foundational gaps that suggested even greater problems. Effective communication provides the base for a successful emergency management program, requiring collaborative efforts with stakeholders, open lines of communication, and updated communication plans. Correctional institutions should seek support from organizations that represent their communities in developing and reviewing their emergency plans. Using this approach,

[391] Department of Justice, Office of the Inspector General, ii.

[392] American Civil Liberties Union, "Horrors Suffered by Orleans Parish Prisoners."

[393] American Civil Liberties Union.

corrections can work with other agencies and organizations to synchronize their emergency plans for a successful emergency response that aligns with public needs and expectations. Once emergency plans are adopted, it is critical to properly train staff and build a culture that prioritizes emergency preparedness. While an approved plan may be activated, there is little value when responders cannot locate or understand the plan for use in an emergency.

C. RECOMMENDATIONS

The aforementioned findings include guiding principles in the emergency planning process that correctional administrators may be able to use, depending on administrative oversight or organizational structure.

Correctional institutions, like other HROs, are at a high-risk of "unexpected and complicated system interactions," capable of causing a disaster with the potential for catastrophic effects.[394] Five "interrelated behavior processes" allow them to identify and correct problems in advance of a potential failure to mitigate the impacts of future disasters: sensitivity to operations, deference to experts, preoccupation with failure, reluctance to simplify, and commitment to resilience.[395] While these principles are recognized as individual practices, they intersect through collaboration.[396] Using these principles, this thesis provides the following recommendations.

1. Sensitivity to Operations

Maintaining a safe institution should be a priority. HROs that are "sensitive to operations" emphasize a need for situational awareness. Leadership focuses heavily on maintaining a culture in which staff understand that safety is a top priority, and something could go wrong at any time. Personnel are trained to expect the unexpected and always keep that in mind while they work.

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394 Milosevic, Bass, and Combs, "The Paradox of Knowledge Creation," 1177.

395 Vogus and Sutcliffe, "Organizational Resilience," 3420.

396 Bogue, "Principles of High Reliability Organizations."

Staff shortages affect an institution's response to emergencies, placing officers and inmates in danger. Institutions should monitor and ensure adequate staffing levels within their facilities.[397] A staffing plan with contingencies for emergency events would allow facilities to identify staffing and training gaps. It would also provide opportunities for the organization to gauge adequate staffing levels with a new focus on the unexpected.

2. Deference to the Experts

By "deferring to the experts," correctional institutions support subject-matter experts' making decisions when appropriate. When these individuals identify and report or correct red flags that should receive attention within the facility, they should receive support from leadership. HROs encourage staff to expect the unexpected, which requires them to look for mitigable hazards.

Administrative leadership may not be familiar with the operational challenges officers and inmates face each day. Those working in the units are most familiar with the infrastructure, inmate population, and technology. Decisions made by members of an agency based on rank may have devastating consequences in an emergency.[398] Therefore, leaders should maintain open communications vertically and horizontally with members of their institution.[399] Doing so allows those with expertise to feel comfortable bringing issues forward when identified.

3. Preoccupation with Failure

Correctional institutions can improve their emergency preparedness programs by focusing on potential failures. Staff should identify and report any hazards as soon as they identify them and continuously look for safety failures that require correction, including building issues, system issues, resource shortages, and training gaps.

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[397] Mandy Johnson, "How to Prepare for Emergencies in Your Correctional Facility ahead of Time," Corrections1, April 26, 2018, https://www.corrections1.com/products/communications/emergency-response/articles/how-to-prepare-for-emergencies-in-your-correctional-facility-ahead-of-time-xosiXTUrk6gNLwRJ/.

[398] Spence and Roberts, "High Reliability Organization Theory," 466.

[399] Spence and Roberts, 466–67.

As a core action of HROs, the preoccupation with failure intertwines with other behaviors. For example, officers should be encouraged to identify and report small problems. These problems are not only building failures but any failure that could have a detrimental impact on the institution's response to a disaster. While a preoccupation with failure is the lead actor of an HRO, the supporting actors bring everything full circle.

Correctional institutions should promote a culture of emergency preparedness. Using positive reinforcement, they should train staff to remain preoccupied with failures of safety, security, infrastructure, technology, power, resources, training, emergency plans, and anything else that could fail. Institutions should always expect the unexpected.

4. Reluctance to Simplify

Correctional institutions should also embrace the HRO principle of "reluctance to simplify," which requires leadership and staff to challenge old policies and operating protocols that may not align with the agency's vision of improved resilience. Often, aged directives remain in place with an informal understanding that this is "the way it has always been."

Emergency plans should be reviewed regularly. They should also be relevant to the agency and applicable to the hazards threatening the institution. Moreover, plans should be shared with frontline staff, in conjunction with proper training and exercises following approval and annual updates. Policies and standard operating procedures should also receive an annual review. Any changes to emergency plans, policies, directives, or standard operating procedures should be shared immediately with staff.

In corrections, everything is neither black nor white—but gray. Agencies lose control in a disaster when emergencies "outpace the system's ability to manage them, exhausting the capacity to adapt to increasing disturbances," when agencies do not follow interfacing response protocols they put in place, or when they depend on old plans that are no longer adaptable and interfacing.[400] Therefore, it is important for policymakers and

[400] Collis, Schmid, and Tobias, "Managing Incidents in a Complex System," 180.

planners to collaborate consistently with those impacted by the facility's emergency response plans when updating plans, training personnel, or exercising protocols.[401]

5. Commitment to Resilience

A correctional institution should have a reputation for prioritizing safety, which allows an agency to focus on mitigating failures within its facility. By remaining preoccupied with failures, institutions are committing to resilience in every aspect of their operations. They are always assessing the safety of inmates and officers. They are evaluating the emergency plans and employee training programs. Infrastructure and operational systems can be repaired before small problems become bigger problems.

Institutions should consider the adjustment from a reactive to proactive operation as an investment in future events. Promoting a culture of preparedness before an emergency strengthens resilience because personnel have learned to quickly adapt to the unexpected in an emergency. They have received the right training and have been prepared to respond to these crises.

When an institution invests in its personnel with ongoing training and exercising of emergency response protocols and emergency operation plans, it strengthens the resilience of the entire organization. Staff members should also be encouraged to participate in the development and review of plans to make certain they align with operations on the frontline. Training should include simulated drills to improve muscle memory. For those who develop and update emergency plans, the only way to determine whether the plan will work is to test it in a drill or exercise—or a real emergency. Institutions can identify improvements necessary in their emergency plans through simulated and real disasters.

Emergency plans are intended to serve as all-hazard response plans that are adaptable and scalable to an emergency or disaster. These plans are supplemented by resources including incident specific annexes and checklists to ensure critical tasks are completed during specific emergencies.[402] Emergency plans should allow flexibility, so

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[401] Collis, Schmid, and Tobias, 178.

[402] Robbins, "Lessons from Hurricane Katrina," 12.

others can support the response needs in a disaster using common language and a command structure that is universal among institutions. They should be interchangeable depending on the hazard.[403] It is easier to train staff on one comprehensive emergency plan than on several difficult emergency plans.[404]

D. FUTURE RESEARCH

This thesis is an early step toward understanding and managing emergency planning in correctional institutions, specifically for long-term power outages and catastrophic events. The research and analysis presented here suggests that the work conducted in correctional institutions is in its infancy. The analysis of preparedness in correctional institutions provided here is merely an examination at the surface level of organizational resilience for corrections. Furthermore, the United States has not yet experienced a widespread, catastrophic power outage to catalog the impacts or identify additional literature for review.

Applying the framework of HROs in correctional institutions requires research and follow-up to determine the effectiveness of employing the practices in various facilities. Research should examine the changes in emergency planning and response within correctional institutions that implement the framework. HROs accept that reality and focus their attention on building a resilient organization. They are focused on what could go wrong and how to mitigate those errors in advance because the impacts are potentially catastrophic. Accidents cannot be 100 percent preventable 100 percent of the time.

[403] Collis, Schmid, and Tobias, "Managing Incidents in a Complex System," 174.

[404] Robbins, "Lessons from Hurricane Katrina," 14.

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