

Department of Health and Human Services
Office of Inspector General



Office of Audit Services

April 2026 | A-02-23-01022

Most Nursing Homes Throughout the United States Do Not Have Adequate or Reliable Emergency Power Systems



April 2026 | A-02-23-01022

Most Nursing Homes Throughout the United States Do Not Have Adequate or Reliable Emergency Power Systems

Why OIG Did This Audit

- During Hurricane Ida, seven nursing home residents in Louisiana died in unsafe and unsanitary conditions after nursing homes evacuated residents into an overcrowded warehouse after reports of massive power outages throughout the State. During Winter Storm Uri, 118 nursing homes in Texas lost power and residents from many of the nursing homes had to be evacuated.
- This audit assessed the reliability and adequacy of emergency power systems in nursing homes throughout the United States that participate in the Medicare and Medicaid programs.

What OIG Found

- We identified emergency power system deficiencies at 72 of the 100 sampled nursing homes that we audited. These 72 nursing homes had a total of 119 deficiencies. These deficiencies occurred because of inadequate nursing home resources and frequent management and staff turnover.

72 of 100 audited nursing homes had unreliable and/or inadequate emergency power systems.

Generator Deficiencies	Number of Nursing Homes
Inadequate Maintenance	53
Inadequate Circuit Coverage	38
Out of Date (Aged >=40 Years)	10

Note: The total number of nursing homes exceeds 72 because we identified multiple maintenance deficiencies at several nursing homes.

- On the basis of our sample results, we estimated that for the 15,115 nursing homes throughout the United States, 10,983 (73 percent) nursing homes have inadequate or unreliable emergency power systems. Specifically, we estimated that 7,967 (53 percent) nursing homes have inadequate generator maintenance, 5,869 (39 percent) nursing homes have generators with inadequate circuit coverage, and 1,447 (10 percent) nursing homes have generators 40 years of age or older.
- As a result of the identified deficiencies, residents, staff, and visitors at these nursing homes are at an increased risk of injury or death during a power failure.

What OIG Recommends

We recommend that [CMS](#) share the results of this report with nursing homes and emphasize the importance of having adequate and reliable emergency power systems.

CMS concurred with our recommendation.

TABLE OF CONTENTS

INTRODUCTION.....	1
Why We Did This Audit.....	1
Objective	1
Background	1
Medicare and Medicaid Nursing Home Survey Requirements	1
Federal Requirements for Emergency Power Systems	2
How We Conducted This Audit.....	3
FINDINGS	4
Nursing Homes Had Inadequate or Unreliable Emergency Power Systems	5
Generator Maintenance	5
Generator Circuit Coverage	6
Generator Age	6
Management and Staff Turnover and Lack of Resources Contributed to Deficiencies.....	7
RECOMMENDATION	8
CMS COMMENTS	8
APPENDICES	
A: Audit Scope and Methodology	9
B: Related Office of Inspector General Reports.....	11
C: Statistical Sampling Methodology	12
D: Sample Results and Estimates	14
E: Deficiencies at Each Nursing Home in Sample.....	15
F: CMS Comments	18

INTRODUCTION

WHY WE DID THIS AUDIT

Power outages caused by natural disasters have led to tragic consequences at nursing homes in the United States. As a result of Hurricane Irma in September 2017, 12 nursing home residents in Florida died due to extremely hot temperatures in their nursing home after the facility lost power and no means of emergency power was available to cool the building. During Winter Storm Uri in February 2021, 118 nursing homes in Texas lost power and residents from many nursing homes had to be evacuated.¹ During Hurricane Ida in August 2021, seven nursing home residents in Louisiana died in unsafe and unsanitary conditions after seven nursing homes evacuated residents into an overcrowded warehouse after reports of massive power outages throughout the State.²

Beginning in 2018, the Office of Inspector General (OIG) conducted a series of audits in eight States to assess nursing homes' compliance with Centers for Medicare & Medicaid Services (CMS) life safety and emergency preparedness requirements. In July 2022, OIG issued a report to CMS summarizing the results of those audits. OIG then completed a second series of similar audits that also included a review of nursing homes' infection control procedures. See Appendix B for a list of related OIG reports, including the audit report summarizing the first series and each of the audit reports from the second series. During our on-site inspections of nursing homes, OIG found numerous deficiencies related to generators, including some generators that had not been properly tested and maintained.

OBJECTIVE

Our objective was to determine the adequacy and reliability of emergency power systems in nursing homes that participate in the Medicare or Medicaid programs.

BACKGROUND

Medicare and Medicaid Nursing Home Survey Requirements

Medicare and Medicaid programs cover care in nursing homes for eligible enrollees. Sections 1819 and 1919 of the Social Security Act establish requirements for CMS and States to perform surveys of nursing homes to determine whether they meet Federal participation requirements. For Medicare and Medicaid, these statutory participation and survey requirements are implemented in Federal regulations at 42 CFR part 483, subpart B, and 42 CFR part 488, subpart

¹ U.S. Senate Finance Committee and Committee on Aging, [Left in the Dark: The impact of the 2021 Texas Blackout on Long-Term Care Residents and the Need to Improve Emergency Preparedness](#), Feb. 23, 2023. The Senate report also noted that, as a result of the winter storm, 168 long-term care facilities sheltered in place without a generator and reported operational problems that included no power, no water, burst pipes, or no transportation to evacuate. Internal temperatures at some of these facilities reportedly plunged into the 50s.

² For purposes of this audit, we reviewed compliance with Federal requirements. However, some States including Florida, Texas, and Louisiana have additional requirements for nursing homes' emergency power systems.

E, respectively. CMS lists applicable requirements on emergency preparedness in its *Emergency Preparedness Surveyor Checklist* and life safety requirements in Form CMS-2786R, Fire Safety Survey Report.^{3, 4}

Federal Requirements for Emergency Power Systems

Nursing homes are required to operate and provide services in compliance with all Federal, State, and local laws, regulations, and codes, as well as accepted professional standards and principles that apply to professionals providing services in such a facility (42 CFR § 483.70). In general, nursing homes are required to have emergency preparedness policies and procedures that address alternate sources of energy (usually generators) to maintain temperatures that protect residents' health and safety, as well as for food storage, emergency lighting, fire protection, and sewage disposal (if applicable).⁵ Specifically, an emergency electrical power system must supply power adequate at least for lighting all entrances and exits; equipment to maintain fire detection, alarm, and extinguishing systems; and life support systems in the event the normal electrical supply is interrupted. Further, facilities must establish policies and procedures on heating and cooling their facility if they lose power during an emergency.⁶

Nursing homes with generators must have them installed in a safe location and are required to perform weekly maintenance checks, monthly load tests (tests used to evaluate how a system behaves under expected or peak user load), and annual fuel quality tests if fueled with diesel.⁷ Nursing homes that maintain an onsite fuel source to power emergency generators must also have a plan to keep generators operational for the duration of an emergency, unless it evacuates.⁸ According to industry best practices, generators that operate on diesel fuel or propane gas are generally designed with a minimum fuel tank capacity to last for 3 days at half-load, which factors in an emergency fuel stock and lead time for refueling.

Federal regulations for life safety (42 CFR § 483.90) require nursing homes to comply with fire safety standards set by the National Fire Protection Association (NFPA). These standards require that nursing homes that utilize life support systems must provide emergency electrical power with an emergency generator located on the premises and essential electrical systems, panels, and circuits should be marked, readily identifiable, and separate from normal power

³ CMS provides online guidance for emergency preparedness at "[Emergency Preparedness Rule](#)" and "[Surveyor-Tool-EP-Tags](#)." Accessed on Aug. 26, 2025.

⁴ CMS, "[Form CMS-2786R](#)." Accessed on Aug. 26, 2025.

⁵ 42 CFR §483.73(b).

⁶ 42 CFR §483.73(b)(1)(ii)(A).

⁷ 42 CFR §483.73(e)(1).

⁸ 42 CFR § 483.73(e)(3). This regulation permits evacuation as an alternative during an emergency. However, we note that evacuation may not always be possible during a widespread disaster due to the tremendous efforts required to transport residents to a safe and healthy evacuation environment. Thus, sheltering-in-place may be necessary.

circuits.⁹ Further, CMS requires that a generator, or other alternate power source and associated equipment, is capable of supplying service within 10 seconds.¹⁰ Generators are required to be inspected weekly and tested under load at various intervals, and written records of maintenance and testing must be maintained and readily available.^{11, 12, 13}

HOW WE CONDUCTED THIS AUDIT

As of September 2023, 15,115 nursing homes participated in the Medicare or Medicaid programs throughout the United States and its territories. We selected a stratified random sample of 100 of these nursing homes for audit. We stratified our sample based on high-risk, medium-risk, and low-risk States and territories, as categorized in the Federal Emergency Management Agency's (FEMA's) National Risk Index.¹⁴ We selected nursing homes in States and territories from each of the risk categories. See Appendix C for details of our statistical sampling methodology.

We interviewed nursing home officials, reviewed nursing homes' records for their emergency power systems, and conducted site visits at 95 of the sampled nursing homes.¹⁵ For the purposes of this report, we considered noncompliance with a Federal requirement and inadequate or unreliable emergency power systems to be deficiencies, regardless of the number of instances of the noncompliance we observed at a facility.¹⁶ For example, if we found a nursing home's maintenance records for its generator were missing load test records for more than 1 month, we considered it a single deficiency for reporting purposes.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain

⁹ NFPA 99, Health Care Facilities Code.

¹⁰ NFPA 110, Standard for Emergency and Standby Power Systems.

¹¹ NFPA 110, Standard for Emergency and Standby Power Systems.

¹² CMS and NFPA require that load test intervals include testing under load for 30 minutes, 12 times a year in 20- to 40-day intervals and testing once every 36 months for 4 continuous hours.

¹³ Maintenance and testing of stored energy power sources should be performed in accordance with NFPA 111, Standard on Stored Electrical Energy Emergency and Standby Power Systems. Main and feeder circuit breakers should be inspected annually and a program for periodically exercising the components should be established according to manufacturer requirements.

¹⁴ FEMA, "[Learn More: National Risk Index.](#)" Accessed on Aug. 26, 2025.

¹⁵ We did not conduct site visits at five nursing homes in our sample because two of the facilities had closed, two facilities did not have generators, and one facility was located in a remote location. We obtained supporting documentation and interviewed personnel for the remote facility's generator. We treated the two closed facilities as non-errors. The two facilities that did not have generators are included in the generator circuit coverage finding below. These two facilities did not have rooms where electric life support equipment was required.

¹⁶ Deficiencies included in this report were determined by OIG. If a CMS or State surveyor conducted the same review, the deficiencies may have varied.

sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

See Appendix A for the details of our audit scope and methodology.

FINDINGS

Seventy-two of 100 selected nursing homes that participate in the Medicare or Medicaid programs did not have adequate or reliable emergency power systems. Specifically, 53 nursing homes had deficiencies related to generator maintenance, 38 nursing homes had deficiencies related to generator circuit coverage; and 10 nursing homes had generators 40 years of age or older.¹⁷ The total number of nursing homes exceeds 72 because we identified multiple deficiencies at several nursing homes.¹⁸

On the basis of our sample results, we estimated that for the 15,115 nursing homes throughout the United States, 10,983 (73 percent) nursing homes have inadequate or unreliable emergency power systems. Specifically, we estimated that:

- 7,967 (53 percent) nursing homes have inadequate generator maintenance
- 5,869 (39 percent) nursing homes have generators with inadequate circuit coverage
- 1,447 (10 percent) nursing homes have generators 40 years of age or older

Appendix D contains the details of our sample results and estimates.

According to nursing home officials, the deficiencies we identified regarding circuit coverage and generator age occurred because of a lack of resources. The deficiencies we identified regarding generator maintenance occurred because of frequent management and staff turnover at the nursing homes.

As a result of the identified deficiencies, residents, staff, and visitors at these nursing homes are at an increased risk of injury or death during a power failure.

Appendix E summarizes the deficiencies, if any, that we identified at each nursing home.

¹⁷ We assessed the reliability of a nursing home's emergency power system based on the age of the system and its operating history and maintenance record. We assessed the adequacy of the system based on whether all required circuits, including HVAC, were covered by the system.

¹⁸ Of the remaining 28 selected nursing homes, 26 had adequate and reliable emergency power systems and we did not review the emergency power systems at the 2 closed nursing homes.

NURSING HOMES HAD INADEQUATE OR UNRELIABLE EMERGENCY POWER SYSTEMS

We identified 72 nursing homes, with 119 deficiencies, that had inadequate or unreliable emergency power systems. Specifically, we identified 53 nursing homes that had a total of 71 deficiencies related to generator maintenance. Also, we identified 38 nursing homes that had deficiencies related to generator circuit coverage and 10 nursing homes that had generators 40 years of age or older.

Generator Maintenance

Nursing homes with generators are required to perform weekly maintenance checks, monthly load tests, annual fuel quality tests if fueled with diesel; and must keep the generator in a safe location.^{19, 20} As part of essential electric system maintenance, nursing homes must test whether their generator is capable of supplying service, also referred to as a transfer time, within 10 seconds.²¹ Nursing homes that maintain an onsite fuel source to power emergency generators must also have a plan to keep generators fueled during an emergency, unless it evacuates.²² Generators that operate on diesel fuel or propane gas are generally designed with a minimum fuel tank capacity to last for 3 days at half-load, which factors in an emergency fuel stock and lead time for refueling.²³

At 53 of the 100 nursing homes in our sample, we identified a total of 71 deficiencies related to weekly maintenance checks, monthly load tests, annual fuel quality tests, fuel level, generator location, and generator transfer time. Specifically, we identified:

- 42 deficiencies related to incomplete maintenance records (i.e., logs did not include all monthly load tests or weekly inspections or an annual fuel quality test)²⁴
- 18 deficiencies related to generators that did not have sufficient fuel levels to last 3 days
- 9 deficiencies related to maintenance logs that did not track whether the transfer time

¹⁹ NFPA 110, Standard for Emergency and Standby Power Systems.

²⁰ Specifically, the generator location must be in accordance with the location requirements found in NFPA 99, NFPA 101, and NFPA 110 when a new structure is built or when an existing structure or building is renovated.

²¹ NFPA 110, Standard for Emergency and Standby Power Systems.

²² 42 CFR § 483.73(e)(3).

²³ The 3-day standard is a best practice recommendation—not a requirement. However, for the purposes of this report, we considered noncompliance with this best practice recommendation to be a deficiency. We noted that the Department of Homeland Security (DHS) recommends being prepared with supplies to last “several days.” See DHS, “[Build a Kit](#).” Accessed on Dec. 16, 2025.

²⁴ We reviewed generator maintenance records for the period from October 2023 to the date of our site visit. Site visits occurred from May 2024 through July 2024. If the nursing home did not provide documentation of a monthly load test or other scheduled maintenance due during this period, we considered it a deficiency.

to essential electrical systems was less than 10 seconds

- 2 deficiencies related to generators that were in an unsafe location within a structure that did not have a fire-rated door

Generator Circuit Coverage

Nursing homes' emergency electrical power systems must supply power adequate at least for lighting at all entrances and exits and equipment to maintain fire detection, alarm, and extinguishing systems.²⁵ In addition, nursing homes are required to develop and implement emergency preparedness policies and procedures that address alternate sources of energy to maintain: (1) temperatures to protect patient health and safety and for the safe and sanitary storage of provisions; (2) emergency lighting; (3) fire detection, extinguishing, and alarm systems; and (4) sewage and waste disposal.²⁶

We identified 38 deficiencies related to generator circuit coverage at 38 of the 100 nursing homes in our sample. Specifically, 33 nursing homes' generators did not provide power to all required circuits, 3 nursing homes were unable to provide support for what their generator provided power to, and 2 nursing homes did not have a generator.²⁷

Generator Age

Nursing homes are required to operate and provide services in compliance with all Federal, State, and local laws, regulations, and codes, as well as accepted professional standards and principles that apply to professionals providing services in such a facility.²⁸ According to manufacturers and trade groups, a commercial generator with a diesel engine should generally last between 10,000 and 30,000 operating hours or 30 years or 40 years, depending on the availability of parts.²⁹ Older generators are more likely to experience mechanical issues and need unexpected repairs, placing nursing home residents and staff at an increased risk during

²⁵ 42 CFR § 483.90(c).

²⁶ 42 CFR §483.73(b).

²⁷ The two nursing homes that did not have an emergency electrical system provided their plans for evacuation. These nursing homes were both part of stratum 2 (medium-risk States and territories), as described in Appendix C.

²⁸ 42 CFR § 483.70.

²⁹ The actual lifespan of a generator depends heavily on several factors, including frequency of use, maintenance history, load management, and availability of parts, which may become a limiting factor in its continued operation and repair. For example, see GenServe, "[Commercial Generator Maintenance: How Much Does It Cost?](#)" Accessed on Sept. 24, 2025. Also see Depco Power Systems, "[What is the lifespan of a diesel generator \(how long do they last?\)](#)" Accessed on Dec. 16, 2025.

an emergency.³⁰ CMS does not require generators to be under a specific age.

We determined that 10 of our sampled nursing homes had generators that were 40 years of age or older. Specifically, 4 nursing homes had generators that were 40 to 49 years old, and 6 nursing homes had generators that were 50 years old or older.³¹ The photographs that follow depict some of the older generators we observed during our site visits.



Photograph 1 (left): Generator manufactured in 1972.
Photograph 2 (right): Generator manufactured in 1980.

Management and Staff Turnover and Lack of Resources Contributed to Deficiencies

Nursing home officials stated that the deficiencies related to generator maintenance occurred because of frequent management and staff turnover at the nursing homes that contributed to a lack of awareness of, or failure to address, certain Federal requirements. In addition, some nursing home officials noted that nursing homes could better ensure that emergency power systems were adequate and reliable if additional resources were available.

While nursing home management and staff are ultimately responsible for ensuring resident safety, CMS could better ensure that nursing homes comply with Federal emergency preparedness requirements and industry standards by emphasizing the importance of maintaining adequate and reliable emergency power systems.

³⁰ For purposes of this audit, we considered generators that were at least 40 years old as unreliable based on the industry standards noted earlier in the report.

³¹ We also noted that 14 nursing homes had generators that were 30 to 39 years old.

RECOMMENDATION

We recommend that CMS share the results of this report with nursing homes and emphasize the importance of having adequate and reliable emergency power systems.

CMS COMMENTS

In written comments on our draft report, CMS concurred with our recommendation and stated that it would take action to share this report with the nursing home community. Specifically, it stated that it will remind the nursing home community of the importance of having adequate and reliable emergency power systems in nursing homes.

CMS acknowledged that it is charged with developing and enforcing quality and safety standards across the nation's healthcare system. CMS also noted that, in 2023, it released a memo addressing Health Care Microgrid Systems that reminded healthcare facilities that they are required to have a normal electrical power source and an alternate emergency power source provided to certain patient care rooms, equipment, and systems by an essential electric system, where the loss of normal power is likely to result in injury or death.³²

CMS also provided technical comments, which we addressed as appropriate. CMS's comments, excluding technical comments, are included as Appendix F.

³² Health Care Microgrid Systems are small-scale electrical grids where the sources of electricity can be provided by clean energy technologies (e.g., fuel cells, solar, wind, energy storage, etc.).

APPENDIX A: AUDIT SCOPE AND METHODOLOGY

SCOPE

As of September 30, 2023, there were 15,115 nursing homes that participated in the Medicare or Medicaid programs throughout the United States. We selected a stratified random sample of these nursing homes for our audit. Our sample was stratified based on high-risk, medium-risk, and low-risk States, as listed in FEMA's National Risk Index.

We did not assess CMS's overall internal control structure. Rather, we limited our assessment of CMS's internal controls to those applicable to our audit objective. Our assessment would not necessarily disclose all material weaknesses in CMS's internal controls.

We conducted our audit work from November 2023 through February 2026.

METHODOLOGY

We took the following steps to accomplish our objective:

- Reviewed applicable Federal requirements
- Used CMS's Quality, Certification and Oversight Reports (QCOR) website to obtain a list of 15,115 nursing homes that participated in Medicare or Medicaid as of September 30, 2023
- Assessed the reliability of the QCOR data used to produce the list of nursing homes and determined that the data were sufficiently reliable for the purposes of this report
- Created a sampling frame of 15,115 nursing homes
- Selected a stratified random sample of 100 nursing homes for review and, for each selected nursing home:
 - Interviewed nursing home personnel
 - Conducted site visits³³
 - Obtained supporting documentation on the nursing home's emergency power systems, including maintenance records and emergency policies and procedures
- Estimated the number and percentage of nursing homes throughout the United States

³³ Site visits were conducted at 95 of the 100 nursing homes in our sample. We did not conduct site visits at five facilities in our sample because two of the facilities had closed, two facilities did not have generators, and one facility was located in a remote location. However, we obtained supporting documentation on the remote facility's generator.

that have inadequate and unreliable emergency power systems

- Discussed the results of our audit with CMS officials

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

APPENDIX B: RELATED OFFICE OF INSPECTOR GENERAL REPORTS

Report Title	Report Number	Date Issued
<i>Massachusetts Could Better Ensure That Nursing Homes Comply With Federal Requirements for Life Safety, Emergency Preparedness, and Infection Control</i>	A-01-23-00003	10/4/2024
<i>Colorado Could Better Ensure That Nursing Homes Comply With Federal Requirements for Life Safety, Emergency Preparedness, and Infection Control</i>	A-07-22-07009	2/2/2024
<i>Oklahoma Could Better Ensure That Nursing Homes Comply With Federal Requirements for Life Safety, Emergency Preparedness, and Infection Control</i>	A-06-22-09007	1/4/2024
<i>Ohio Could Better Ensure That Nursing Homes Comply With Federal Requirement for Life Safety, Emergency Preparedness, and Infection Control</i>	A-05-22-00019	12/20/2023
<i>Washington State Did Not Ensure That Selected Nursing Homes Complied With Federal Requirements for Life Safety, Emergency Preparedness, and Infection Control</i>	A-09-22-02006	12/8/2023
<i>Pennsylvania Could Better Ensure That Nursing Homes Comply With Federal Requirements for Life Safety, Emergency Preparedness, and Infection Control</i>	A-03-22-00206	11/8/2023
<i>New Jersey Could Better Ensure That Nursing Homes Comply With Federal Requirements for Life Safety, Emergency Preparedness, and Infection Control</i>	A-02-22-01004	9/29/2023
<i>Georgia Could Better Ensure That Nursing Homes Comply With Federal Requirements for Life Safety, Emergency Preparedness, and Infection Control</i>	A-04-22-08093	9/6/2023
<i>Audits of Nursing Home Life Safety and Emergency Preparedness in Eight States Identified Noncompliance With Federal Requirements and Opportunities for the Centers for Medicare & Medicaid Services to Improve Resident, Visitor, and Staff Safety</i>	A-02-21-01010	7/15/2022

APPENDIX C: STATISTICAL SAMPLING METHODOLOGY

SAMPLING FRAME

The sampling frame consisted of 15,115 nursing homes in the United States and its associated territories that participated in the Medicare or Medicaid programs as of September 30, 2023.³⁴

SAMPLING UNIT

The sample unit was an individual nursing home.

SAMPLE DESIGN AND SAMPLE SIZE

We used a stratified random sample. We divided the sampling frame into three strata based on nursing homes located in high-,³⁵ medium-,³⁶ and low-risk³⁷ States and territories, as determined by information from FEMA's National Risk Index using an All-Hazards risk approach. FEMA's approach takes into account many factors, including the population of a county. Table 2 details our sample design.

Table 2: Sample Design

Stratum	Nursing Home Location Risk Status	States and territories Included in Stratum	Nursing Homes in Frame	Sample Size
1	High-risk States and territories	AZ, CA, CT, DE, DC, FL, GU, HI, MA, NJ, OR, PR, and WA	3,373	30
2	Medium-risk States and territories	AL, GA, IL, KY, LA, MI, MN, MS, MO, NE, NV, NY, NC, OK, PA, SC, TN, TX, and UT	7,395	40
3	Low-risk States and territories	AK, AR, CO, ID, IN, IA, KS, ME, MD, MT, NH, NM, ND, OH, RI, SD, VT, VA, WV, WI, and WY	4,347	30
Total			15,115	100

³⁴ The 15,115 nursing homes include those located in the 50 States, the District of Columbia, Guam, and Puerto Rico.

³⁵ We defined high-risk States and territories as those having predominantly high-risk or medium-risk counties, as identified in FEMA's National Risk Index.

³⁶ We defined medium-risk States and territories as those having predominantly low-risk counties with some medium-risk counties and at least one high-risk county, as identified in FEMA's National Risk Index.

³⁷ We defined low-risk States and territories as those having predominantly low-risk counties with some medium-risk counties and no high-risk counties, as identified in FEMA's National Risk Index.

SOURCE OF RANDOM NUMBERS

The source of the random numbers was the Office of Inspector General (OIG), Office of Audit Services (OAS), statistical software.

METHOD FOR SELECTING SAMPLE

We sorted the items in each stratum by the nursing home's CMS Certification Number in ascending order and then consecutively numbered the items in each stratum in the sampling frame. After generating the random numbers for each stratum according to our sample design, we selected the corresponding frame items for review.

ESTIMATION METHODOLOGY

We used the OIG, OAS, statistical software to estimate (for the sampling frame) the number and percentage of nursing homes with: (1) inadequate and/or unreliable emergency power systems; (2) inadequate generator maintenance; (3) inadequate circuit coverage; and (4) generators 40 years of age or older. We used the OIG, OAS, statistical software to calculate a point estimate and a two-sided 90-percent confidence interval. The estimates only apply to the items listed in the sampling frame.

APPENDIX D: SAMPLE RESULTS AND ESTIMATES

Table 4: Sample Detail and Results

Stratum	Nursing Homes in the Sampling Frame	Sample Size	Number of Nursing Homes in Sample with One or More Deficiencies			
			Inadequate/Unreliable Emergency Power Systems	Inadequate Emergency Power System Maintenance	Inadequate Emergency Power System Circuit Coverage	Emergency Power Systems 40 Years of Age or Older
1	3,373	30	20	17	11	5
2	7,395	40	30	21	18	4
3	4,347	30	22	15	9	1
Total	15,115	100	72	53	38	10

**Table 5: Estimated Nursing Homes in the Sampling Frame
(Limits Calculated for a 90-Percent Confidence Interval)**

	Estimated Nursing Homes in Sample with One of More Deficiencies			
	Inadequate/Unreliable Emergency Power Systems	Inadequate Emergency Power System Maintenance	Inadequate Emergency Power System Circuit Coverage	Emergency Power Systems 40 Years of Age or Older
Point Estimate	10,983 (73%)	7,967 (53%)	5,869 (39%)	1,447 (10%)
Lower Limit	9,850 (65%)	6,688 (44%)	4,625 (31%)	710 (5%)
Upper Limit	12,116 (80%)	9,247 (61%)	7,112 (47%)	2,183 (14%)

APPENDIX E: DEFICIENCIES AT EACH NURSING HOME IN SAMPLE

Table 6 Nursing Homes with Inadequate and Unreliable Emergency Power Systems in Sample

Note: If the total in the final column is greater than 1, the nursing home was considered to have an inadequate and unreliable emergency power system.

Nursing Home	Stratum	Site Visit Conducted	Inadequate Emergency Power System Maintenance	Inadequate Emergency Power System Circuit Coverage	Emergency Power Systems 40 Years of Age or Older	Total
1	1	Yes	2	1	0	3
2	1	Yes	2	1	0	3
3	1	Yes	1	1	1	3
4	1	Yes	1	1	0	2
5	1	Yes	2	1	0	3
6	1	Yes	1	0	0	1
7	1	Yes	2	1	0	3
8	1	Yes	0	1	1	2
9	1	Yes	1	0	0	1
10	1	Yes	0	0	0	0
11	1	Yes	0	0	0	0
12	1	Yes	1	0	0	1
13	1	Yes	0	0	0	0
14	1	Yes	1	0	0	1
15	1	Yes	1	0	0	1
16	1	Yes	0	1	0	1
17	1	Yes	1	0	0	1
18	1	Yes	2	0	1	3
19	1	Yes	1	0	0	1
20	1	Yes	0	0	0	0
21	1	Yes	0	0	0	0
22	1	Yes	1	0	1	2
23	1	Yes	0	0	0	0
24	1	Yes	0	0	0	0
25	1	Yes	0	0	0	0
26	1	Yes	2	1	1	4
27	1	Yes	0	0	0	0
28	1	Yes	2	1	0	3
29	1	Yes	0	0	0	0
30	1	Yes	0	1	0	1

Nursing Home	Stratum	Site Visit Conducted	Inadequate Emergency Power System Maintenance	Inadequate Emergency Power System Circuit Coverage	Emergency Power Systems 40 Years of Age or Older	Total
31	2	Yes	0	1	0	1
32	2	Yes	0	1	1	2
33	2	Yes	1	1	0	2
34	2	Yes	0	0	0	0
35	2	Yes	0	0	0	0
36	2	Yes	1	0	0	1
37	2	Yes	0	0	0	0
38	2	Yes	0	1	0	1
39	2	Yes	1	0	0	1
40	2	Yes	1	1	0	2
41	2	Yes	1	1	0	2
42	2	Yes	0	1	0	1
43	2	Yes	2	0	1	3
44	2	Yes	1	0	0	1
45	2	Yes	0	0	0	0
46	2	Yes	0	0	0	0
47	2	No	0	1	0	1
48	2	Yes	1	0	0	1
49	2	Yes	1	0	1	2
50	2	Yes	1	0	0	1
51	2	Yes	1	0	0	1
52	2	Yes	0	1	1	2
53	2	Yes	1	0	0	1
54	2	Yes	2	0	0	2
55	2	No	0	1	0	1
56	2	Yes	2	0	0	2
57	2	Yes	0	0	0	0
58	2	Yes	2	1	0	3
59	2	Yes	0	0	0	0
60	2	Yes	1	1	0	2
61	2	Yes	3	1	0	4
62	2	Yes	0	1	0	1
63	2	Yes	0	1	0	1
64	2	Yes	1	1	0	2
65	2	Yes	1	0	0	1
66	2	Yes	1	1	0	2

Nursing Home	Stratum	Site Visit Conducted	Inadequate Emergency Power System Maintenance	Inadequate Emergency Power System Circuit Coverage	Emergency Power Systems 40 Years of Age or Older	Total
67	2	Yes	0	0	0	0
68	2	Yes	0	0	0	0
69	2	Yes	0	0	0	0
70	2	Yes	2	1	0	3
71	3	No	1	0	0	1
72	3	Yes	1	0	0	1
73	3	Yes	0	0	0	0
74	3	Yes	1	0	0	1
75	3	Yes	0	1	0	1
76	3	Yes	1	1	0	2
77	3	Yes	0	0	0	0
78	3	Yes	0	0	0	0
79	3	Yes	1	0	0	1
80	3	Yes	1	0	0	1
81	3	Yes	0	0	0	0
82	3	Yes	1	0	0	1
83	3	Yes	1	0	0	1
84	3	Yes	2	0	0	2
85	3	No	0	0	0	0
86	3	Yes	0	1	0	1
87	3	Yes	2	0	0	2
88	3	Yes	0	1	0	1
89	3	Yes	1	0	0	1
90	3	Yes	0	0	0	0
91	3	Yes	0	1	0	1
92	3	Yes	0	1	1	2
93	3	Yes	0	1	0	1
94	3	Yes	0	0	0	0
95	3	Yes	1	1	0	2
96	3	Yes	0	1	0	1
97	3	Yes	2	0	0	2
98	3	Yes	2	0	0	2
99	3	No	0	0	0	0
100	3	Yes	1	0	0	1
Total			71	38	10	119

APPENDIX F: CMS COMMENTS




DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Medicare & Medicaid Services

Administrator
Washington, DC 20201

DATE: March 23, 2026

TO: John D. Hagg
Acting Deputy Inspector General for Audit Services

FROM: Dr. Mehmet Oz 
Administrator

SUBJECT: Office of Inspector General Draft Report: Most Nursing Homes Throughout the United States Do Not Have Adequate Reliable Emergency Power Systems

The Centers for Medicare & Medicaid Services (CMS) appreciates the opportunity to review and comment on the Office of Inspector General's (OIG) draft report.

CMS is charged with developing and enforcing quality and safety standards across the nation's health care system, a responsibility we take seriously. This duty is especially important when it comes to the care provided for people covered by Medicare and Medicaid who live in nursing homes. Nursing homes certified by Medicare and Medicaid are required to meet health and safety requirements, including certain physical standards for their buildings.¹

Specifically, nursing homes must be in compliance with the 2012 edition of the National Fire Protection Association (NFPA) 101 Life Safety Code (LSC), which is a set of fire protection requirements designed to provide a reasonable degree of safety from fire and incorporated by reference in CMS regulations. It covers construction, protection, and operational features designed to provide safety from fire, smoke, and panic. Nursing homes must also be in compliance with applicable provisions of the Health Care Facilities Code (HCFC) requirements, which are intended to provide minimum requirements for the installation, inspection, testing, maintenance, performance and safe practices for facilities, material, equipment and appliances. The LSC and HCFC requirements are determined by the NFPA, which was founded to promote the science of and to improve the methods of fire protection since 1896.²

CMS partners with State Survey Agencies (SAs) to assess nursing homes' compliance with the LSC/HCFC requirements by conducting on-site surveys at least every 15.9 months. For the LSC/HCFC surveys, SAs may work with the State Fire Marshal offices, or other state agencies responsible for enforcing state fire code requirements.³ Each SA is responsible for surveying the nursing homes and investigating substantial allegation(s) of noncompliance with Medicare

¹ 42 CFR §483.90 Physical Environment

² CMS [website](#), Life Safety Code & Health Care Facilities Code Requirements

³ Id.

requirements. In some cases, the LSC/HCFC survey coincides with the health surveys, but LSC/HCFC surveys can happen separately and at any time.⁴

In 2023, CMS released a memo addressing Health Care Microgrid Systems (HCMSs) that reminded healthcare facilities that they are required to have a normal electrical power source and an alternate emergency power source provided to certain patient care rooms, equipment, and systems by an essential electric system, where the loss of normal power is likely to result in injury or death. Specifically, the 2012 edition of the NFPA 99 requires the emergency power source to be supplied by a generator set or battery system. Meanwhile, the 2021 edition of NFPA 99 now permits normal and emergency power to be supplied by sources other than a generator or battery system, including an HCMS. CMS regulations allow for waivers of the specific provisions of the 2012 edition of the NFPA 99 where the application would result in unreasonable hardship upon a provider or supplier, but only if the waiver does not adversely affect the health and safety of patients or residents. However, there is no waiver allowance for the requirements for nursing homes to provide emergency electrical power with an emergency generator when life support systems are used. Sources of energy power other than a generator are not permitted for life support systems for residents.⁵

CMS thanks OIG for their efforts on this issue and looks forward to working with OIG on this and other issues in the future.

OIG's recommendation and CMS's response are below.

OIG Recommendation

We recommend that CMS share the results of this report with nursing homes and emphasize the importance of having adequate and reliable emergency power systems.

CMS Response

CMS concurs with OIG's recommendation. CMS will share this report with the nursing home community through its normal channels to remind them of the importance of having adequate and reliable emergency power systems in nursing homes.

⁴ Id.

⁵ CMS Memo, QSO-23-11-LSC, Categorical Waiver – Health Care Microgrid Systems, March 2023

Report Fraud, Waste, and Abuse

OIG Hotline Operations accepts tips and complaints from all sources about potential fraud, waste, abuse, and mismanagement in HHS programs. Hotline tips are incredibly valuable, and we appreciate your efforts to help us stamp out fraud, waste, and abuse.



TIPS.HHS.GOV

Phone: 1-800-447-8477

TTY: 1-800-377-4950

Who Can Report?

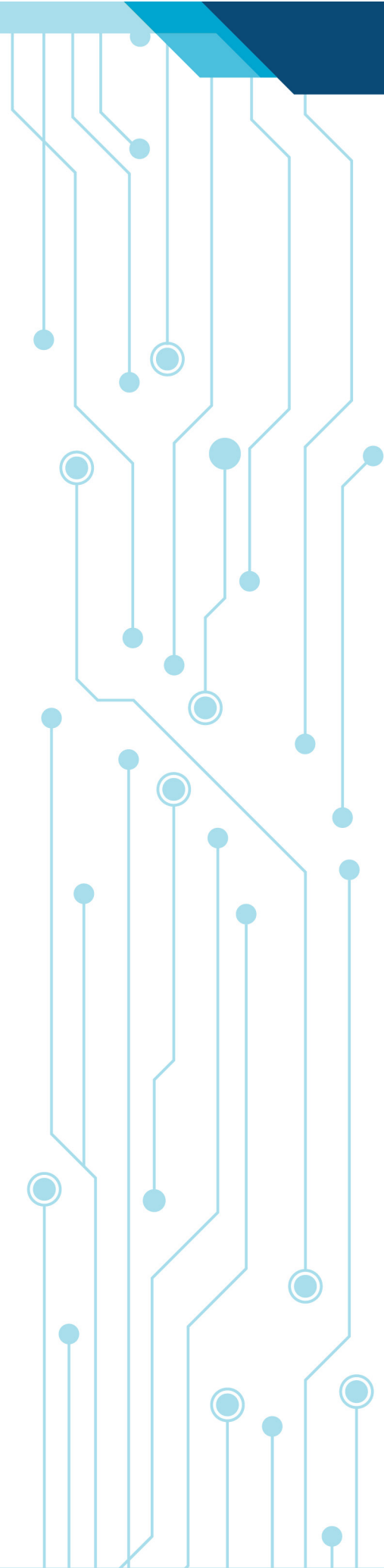
Anyone who suspects fraud, waste, and abuse should report their concerns to the OIG Hotline. OIG addresses complaints about misconduct and mismanagement in HHS programs, fraudulent claims submitted to Federal health care programs such as Medicare, abuse or neglect in nursing homes, and many more. [Learn more about complaints OIG investigates.](#)

How Does It Help?

Every complaint helps OIG carry out its mission of overseeing HHS programs and protecting the individuals they serve. By reporting your concerns to the OIG Hotline, you help us safeguard taxpayer dollars and ensure the success of our oversight efforts.

Who Is Protected?

Anyone may request confidentiality. The Privacy Act, the Inspector General Act of 1978, and other applicable laws protect complainants. The Inspector General Act states that the Inspector General shall not disclose the identity of an HHS employee who reports an allegation or provides information without the employee's consent, unless the Inspector General determines that disclosure is unavoidable during the investigation. By law, Federal employees may not take or threaten to take a personnel action because of [whistleblowing](#) or the exercise of a lawful appeal, complaint, or grievance right. Non-HHS employees who report allegations may also specifically request confidentiality.



Stay In Touch

Follow HHS-OIG for up to date news and publications.



OIGatHHS



HHS Office of Inspector General

[Subscribe To Our Newsletter](#)

[OIG.HHS.GOV](https://oig.hhs.gov)

Contact Us

For specific contact information, please [visit us online](#).

U.S. Department of Health and Human Services
Office of Inspector General
Public Affairs
330 Independence Ave., SW
Washington, DC 20201

Email: Public.Affairs@oig.hhs.gov