

**Congress of the United States**  
**House of Representatives**

COMMITTEE ON OVERSIGHT AND REFORM

2157 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6143

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<https://oversight.house.gov>

August 1, 2022

Mr. Alexander Hoehn-Saric  
Chairman  
Consumer Product Safety Commission  
4330 East-West Highway  
Bethesda, MD 20814

Dear Chairman Hoehn-Saric:

In 1986, the Environmental Protection Agency (EPA) issued a report pressing the Consumer Product Safety Commission (CPSC) to focus on the dangers of gas stove emissions.<sup>1</sup> Five years later, in 1991, CPSC and EPA—in conjunction with the American Lung Association—published a short pamphlet discussing the dangers of indoor air pollution and combustion appliances and warning that possible health effects could include headaches, breathing difficulties, or even death.<sup>2</sup> And just last fall, CPSC began holding meetings with industry stakeholders to discuss the establishment of an independent task force to address indoor air pollution from gas stove emissions.<sup>3</sup> Yet today, more than 35 years after first learning of the potential risks associated with indoor gas stove emissions, CPSC still has issued no regulations or guidelines limiting indoor emissions of harmful pollutants such as nitrogen dioxide, which commonly exceed even the outdoor pollution standards established by EPA.<sup>4</sup> I write to request documents and information about the CPSC's failure to establish safety standards and provide adequate warnings to consumers addressing the significant health risks posed by indoor air pollution from gas stoves.

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<sup>1</sup> Environmental Protection Agency, *Report of the Clean Air Scientific Advisory Committee: A Review of the Consumer Product Safety Commission's Health Effects and Exposure Assessment Documents on Nitrogen Dioxide* (May 1986) (online at <https://tinyurl.com/7va67ays>).

<sup>2</sup> Consumer Product Safety Commission, Environmental Protection Agency, American Lung Association, *What You Should Know About Combustible Appliances and Indoor Air Pollution* (1991) (online at <https://tinyurl.com/3cvz729x>). It is not clear how or to whom the CPSC, EPA, and ALA distributed this pamphlet.

<sup>3</sup> Consumer Product Safety Commission, *Gas Range and Indoor Air Quality Meeting with Stakeholders* (Sept. 1, 2021) (online at [www.cpsc.gov/s3fs-public/2021-09-01-Gas-Range-and-IAQ-Log-of-Meeting.pdf?VersionId=P.JkImnSuyAeOqm6yphxuDkhzW7ziqMw](http://www.cpsc.gov/s3fs-public/2021-09-01-Gas-Range-and-IAQ-Log-of-Meeting.pdf?VersionId=P.JkImnSuyAeOqm6yphxuDkhzW7ziqMw)).

<sup>4</sup> Rocky Mountain Institute, *Health Effects of Gas Stove Pollution* (May 2020) (online at <https://rmi.org/insight/gas-stoves-pollution-health/>).

Gas stoves—used by more than one-third of U.S. households—emit harmful levels of several pollutants, including nitrogen dioxide (NO<sub>2</sub>).<sup>5</sup> Homes with gas stoves have average NO<sub>2</sub> levels ranging from roughly 50% to 400% higher than homes with electric stoves.<sup>6</sup> When using gas ranges, basic cooking activities, such as baking a cake or roasting meat, can produce indoor NO<sub>2</sub> emissions two to three times greater than both the World Health Organization’s indoor NO<sub>2</sub> guideline of 106 parts per billion (ppb) and EPA’s outdoor NO<sub>2</sub> standard of 100 ppb.<sup>7</sup> Indoor gas stove emissions can exceed EPA’s outdoor NO<sub>2</sub> standard after only a few minutes of stove usage.<sup>8</sup>

Measured NO <sub>2</sub> Emissions from Gas Stoves	Peak (ppb)
Baking cake in oven	230
Roasting meat in oven	296
Frying bacon	104
Boiling water	184
Gas cooktop - no food	82–300
Gas oven - no food	130–546

Source: Rocky Mountain Institute<sup>9</sup>

NO<sub>2</sub> is not the only harmful pollutant about which families living in homes with gas stoves have to worry. A recent study of homes in the Boston area conducted by researchers from the Harvard T.H. Chan School of Public Health concluded that, even when combustion appliances were not in use, “natural gas used in homes ... contains varying levels of volatile organic chemicals that when leaked are known to be toxic, linked to cancer, and can form secondary health-damaging pollutants such as particulate matter and ozone.”<sup>10</sup> More

<sup>5</sup> Institute for Policy Integrity, *The Emissions in the Kitchen: How the Consumer Product Safety Commission Can Address the Risks of Indoor Air Pollution from Gas Stoves* (Apr. 2022) (online at [https://policyintegrity.org/files/publications/Emissions\\_in\\_the\\_Kitchen\\_Report\\_v3\\_%281%29.pdf](https://policyintegrity.org/files/publications/Emissions_in_the_Kitchen_Report_v3_%281%29.pdf)).

<sup>6</sup> Environmental Protection Agency, *Integrated Science Assessment for Oxides of Nitrogen—Health Criteria 2-38* (July 2008) (online at <https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=194645>).

<sup>7</sup> Rocky Mountain Institute, *Health Effects of Gas Stove Pollution* (May 2020) (online at <https://rmi.org/insight/gas-stoves-pollution-health/>).

<sup>8</sup> Eric Lebel et al., *Methane and NO<sub>x</sub> Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes*, *Environmental Science & Technology* (Jan. 27, 2022) (online at <https://pubs.acs.org/doi/pdf/10.1021/acs.est.1c04707>).

<sup>9</sup> Rocky Mountain Institute, *Health Effects of Gas Stove Pollution* (May 2020) (online at <https://rmi.org/insight/gas-stoves-pollution-health/>).

<sup>10</sup> Harvard Chan C-Change, *Natural Gas Used in Homes Contains Hazardous Air Pollutants* (June 28, 2022) (online at [www.hsph.harvard.edu/c-change/news/natural-gas-used-in-homes/](http://www.hsph.harvard.edu/c-change/news/natural-gas-used-in-homes/)).

specifically, the study found worrying levels of benzene, hexane, toluene, heptane, and cyclohexane.<sup>11</sup>

The high levels of indoor pollution from gas stoves present significant health risks, particularly to children. Studies have shown that children living in homes with gas stoves have a 42% greater risk of experiencing asthma symptoms and a 24% greater risk of being diagnosed with asthma.<sup>12</sup> In other words, living in a home with a gas stove presents a similar asthma risk to children as does second-hand cigarette smoke.<sup>13</sup>

Proper stove ventilation (*e.g.*, using an exhaust hood) has the potential to reduce indoor pollution from gas stoves to acceptable levels.<sup>14</sup> However, unlike with gas furnaces, water heaters, and dryers, no federal laws or guidelines require that gas stove emissions be vented outdoors. In the absence of any such requirement, many homes lack exhaust hoods altogether, and others have hoods that merely recirculate air, which does not lower the pollution levels inside a home. And even when exhaust hoods are present in a home, many people do not use them.<sup>15</sup> Furthermore, because no federal regulations govern their capture efficiency in homes, the quality of exhaust hoods varies greatly.<sup>16</sup> While some commercially available hoods can capture up to 98% of indoor pollution from a gas stove, other exhaust hoods capture as little as

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<sup>11</sup> Drew R. Michanowicz et al., *Home Is Where the Pipeline Ends: Characterization of Volatile Organic Compounds Present in Natural Gas at the Point of the Residential End User*, Environmental Science & Technology (June 28, 2022) (online at <https://pubs.acs.org/doi/pdf/10.1021/acs.est.1c08298>).

<sup>12</sup> Institute for Policy Integrity, *The Emissions in the Kitchen: How the Consumer Product Safety Commission Can Address the Risks of Indoor Air Pollution from Gas Stoves* (Apr. 2022) (online at [https://policyintegrity.org/files/publications/Emissions\\_in\\_the\\_Kitchen\\_Report\\_v3\\_%281%29.pdf](https://policyintegrity.org/files/publications/Emissions_in_the_Kitchen_Report_v3_%281%29.pdf)); Weiwei Lin et al., *Meta-Analysis of the Effects of Indoor Nitrogen Dioxide and Gas Cooking on Asthma and Wheeze in Children*, International Journal of Epidemiology (Dec. 2013) (online at <https://academic.oup.com/ije/article/42/6/1724/737113>).

<sup>13</sup> Climate Council, *Kicking the Gas Habit: How Gas Is Harming Our Health* (May 2021) (online at [www.climatecouncil.org.au/wp-content/uploads/2021/05/Kicking-the-Gas-Habit-How-Gas-is-Harming-our-Health.pdf](http://www.climatecouncil.org.au/wp-content/uploads/2021/05/Kicking-the-Gas-Habit-How-Gas-is-Harming-our-Health.pdf)).

<sup>14</sup> Wanyu Chan et al., *Simulations of Short-Term Exposure to NO<sub>2</sub> and PM<sub>2.5</sub> to Inform Capture Efficiency Standards*, Lawrence Berkeley National Laboratory (Mar. 30, 2020) (online at <https://escholarship.org/content/qt6tj6k06j/qt6tj6k06j.pdf>). EPA's Air Quality Index has a value range from 0 to 500. Air quality values between 51 and 100 are considered "acceptable," while air quality values between 0 and 50 are considered "satisfactory." Environmental Protection Agency, *Air Quality Index (AQI) Basics* (online at [www.airnow.gov/aqi/aqi-basics/](http://www.airnow.gov/aqi/aqi-basics/)) (accessed July 29, 2022).

<sup>15</sup> Rocky Mountain Institute, *Health Effects of Gas Stove Pollution* (May 2020) (online at <https://rmi.org/insight/gas-stoves-pollution-health/>).

<sup>16</sup> Institute for Policy Integrity, *The Emissions in the Kitchen: How the Consumer Product Safety Commission Can Address the Risks of Indoor Air Pollution from Gas Stoves* (Apr. 2022) (online at [https://policyintegrity.org/files/publications/Emissions\\_in\\_the\\_Kitchen\\_Report\\_v3\\_%281%29.pdf](https://policyintegrity.org/files/publications/Emissions_in_the_Kitchen_Report_v3_%281%29.pdf)); Weiwei Lin et al., *Meta-Analysis of the Effects of Indoor Nitrogen Dioxide and Gas Cooking on Asthma and Wheeze in Children*, International Journal of Epidemiology (Dec. 2013) (online at <https://academic.oup.com/ije/article/42/6/1724/737113>); Rocky Mountain Institute, *Health Effects of Gas Stove Pollution* (May 2020) (online at <https://rmi.org/insight/gas-stoves-pollution-health/>).

15%.<sup>17</sup> Research indicates that exhaust hoods must capture at least 70% of pollutants like nitrogen oxide to make the indoor air quality “acceptable” for residents of homes with gas stoves—meaning many exhaust hoods do not provide adequate safety.<sup>18</sup>

CPSC has the authority either to issue mandatory standards and require warning labels or to work with industry to develop voluntary standards and labels that would address indoor air pollution from gas stoves. Despite this authority, the Commission has failed, among other things, to develop standards limiting most types of indoor air pollution from gas stoves, require effective exhaust hoods, or facilitate the introduction of meaningful warning labels to inform consumers about the health risks from gas stoves and the importance of proper ventilation.<sup>19</sup> CPSC’s Safety Education Materials Library offers only a general, high-level guide about indoor air quality that contains a few cursory mentions of gas stoves.<sup>20</sup>

I am deeply concerned by the Commission’s failure to establish safety standards and communicate clearly to the public about this issue, especially given the serious health risks to children. To assist the Subcommittee in its review of this matter, please produce, by August 15, 2022, the following documents in your possession, custody, or control:

1. All documents, including internal memoranda and analyses, regarding indoor emissions or indoor air pollution from gas stoves, including documents related to the EPA’s May 1986 report entitled *Report of the Clean Air Scientific Advisory Committee: A Review of the Consumer Product Safety Commission’s Health Effects and Exposure Assessment Documents on Nitrogen Dioxide*;
2. All documents, including internal memoranda and analyses, regarding CPSC’s regulation or oversight of indoor emissions or indoor air pollution from gas stoves, including but not limited to draft indoor emissions standards or warning labels for gas stoves; and
3. All documents, including internal memoranda and analyses, discussing the creation of an indoor joint task force related to indoor air quality and gas ranges.

To assist the Subcommittee in its review of this matter, please provide answers to the following questions by August 8, 2022:

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<sup>17</sup> Rocky Mountain Institute, *Health Effects of Gas Stove Pollution* (May 2020) (online at <https://rmi.org/insight/gas-stoves-pollution-health/>).

<sup>18</sup> Institute for Policy Integrity, *The Emissions in the Kitchen: How the Consumer Product Safety Commission Can Address the Risks of Indoor Air Pollution from Gas Stoves* (Apr. 2022) (online at [https://policyintegrity.org/files/publications/Emissions\\_in\\_the\\_Kitchen\\_Report\\_v3\\_%281%29.pdf](https://policyintegrity.org/files/publications/Emissions_in_the_Kitchen_Report_v3_%281%29.pdf)).

<sup>19</sup> *Id.* CPSC has only established voluntary standards relating to carbon monoxide poisoning from gas stove emissions.

<sup>20</sup> Consumer Product Safety Commission, *The Inside Story: A Guide to Indoor Air Quality* (online at [www.cpsc.gov/safety-education/safety-guides/home/inside-story-guide-indoor-air-quality](http://www.cpsc.gov/safety-education/safety-guides/home/inside-story-guide-indoor-air-quality)).

1. Has the Commission considered issuing mandatory or recommending voluntary standards or warning labels to address the health risks of indoor air pollution from gas stoves? If it has, please explain the status of the Commission's work and explain why the Commission has not yet issued any such mandatory—or recommended any such voluntary—standards or warning labels? If it has not, will the Commission consider taking such action based on the publicly available evidence of health harms from gas stoves?
2. Please describe the Commission's plans, if any, to issue mandatory standards or to facilitate the adoption of voluntary standards addressing indoor air pollution from gas stoves.
3. Please describe the Commission's plans, if any, to require a mandatory warning label or facilitate the adoption of voluntary warning labels addressing the health risks of indoor air pollution from gas stoves.
4. Please describe the Commission's plans, if any, to publish public educational materials specifically focused on the significant health risks posed by gas stove emissions.
5. Are there any legislative or other measures that the Commission believes are necessary for it to issue regulations concerning indoor gas stove emissions?
6. Are the following substances toxic: (i) nitrogen dioxide; (ii) benzene; (iii) toluene; (iv) heptane; (v) hexane; and (vi) cyclohexane?

The Committee on Oversight and Reform is the principal oversight committee of the House of Representatives and has broad authority to investigate “any matter” at “any time” under House Rule X. An attachment to this letter provides additional instructions for responding to the Subcommittee's request. If you have any questions regarding this request, please contact Subcommittee staff at (202) 225-5051.

Sincerely,



Raja Krishnamoorthi

Chairman

Subcommittee on Economic and Consumer Policy

Enclosure

cc: The Honorable Michael Cloud, Ranking Member  
Subcommittee on Economic and Consumer Policy

## Responding to Oversight Committee Document Requests

1. In complying with this request, produce all responsive documents that are in your possession, custody, or control, whether held by you or your past or present agents, employees, and representatives acting on your behalf. Produce all documents that you have a legal right to obtain, that you have a right to copy, or to which you have access, as well as documents that you have placed in the temporary possession, custody, or control of any third party.
2. Requested documents, and all documents reasonably related to the requested documents, should not be destroyed, altered, removed, transferred, or otherwise made inaccessible to the Committee.
3. In the event that any entity, organization, or individual denoted in this request is or has been known by any name other than that herein denoted, the request shall be read also to include that alternative identification.
4. The Committee's preference is to receive documents in electronic form (i.e., CD, memory stick, thumb drive, or secure file transfer) in lieu of paper productions.
5. Documents produced in electronic format should be organized, identified, and indexed electronically.
6. Electronic document productions should be prepared according to the following standards:
  - a. The production should consist of single page Tagged Image File ("TIF"), files accompanied by a Concordance-format load file, an Opticon reference file, and a file defining the fields and character lengths of the load file.
  - b. Document numbers in the load file should match document Bates numbers and TIF file names.
  - c. If the production is completed through a series of multiple partial productions, field names and file order in all load files should match.
  - d. All electronic documents produced to the Committee should include the following fields of metadata specific to each document, and no modifications should be made to the original metadata:  
  
BEGDOC, ENDDOC, TEXT, BEGATTACH, ENDATTACH, PAGECOUNT, CUSTODIAN, RECORDTYPE, DATE, TIME, SENTDATE, SENTTIME, BEGINDATE, BEGINTIME, ENDDATE, ENDTIME, AUTHOR, FROM, CC, TO, BCC, SUBJECT, TITLE, FILENAME, FILEEXT, FILESIZE, DATECREATED, TIMECREATED, DATELASTMOD, TIMELASTMOD,

INTMSGID, INTMSGHEADER, NATIVELINK, INTFILPATH, EXCEPTION,  
BEGATTACH.

7. Documents produced to the Committee should include an index describing the contents of the production. To the extent more than one CD, hard drive, memory stick, thumb drive, zip file, box, or folder is produced, each should contain an index describing its contents.
8. Documents produced in response to this request shall be produced together with copies of file labels, dividers, or identifying markers with which they were associated when the request was served.
9. When you produce documents, you should identify the paragraph(s) or request(s) in the Committee's letter to which the documents respond.
10. The fact that any other person or entity also possesses non-identical or identical copies of the same documents shall not be a basis to withhold any information.
11. The pendency of or potential for litigation shall not be a basis to withhold any information.
12. In accordance with 5 U.S.C. § 552(d), the Freedom of Information Act (FOIA) and any statutory exemptions to FOIA shall not be a basis for withholding any information.
13. Pursuant to 5 U.S.C. § 552a(b)(9), the Privacy Act shall not be a basis for withholding information.
14. If compliance with the request cannot be made in full by the specified return date, compliance shall be made to the extent possible by that date. An explanation of why full compliance is not possible shall be provided along with any partial production.
15. In the event that a document is withheld on the basis of privilege, provide a privilege log containing the following information concerning any such document: (a) every privilege asserted; (b) the type of document; (c) the general subject matter; (d) the date, author, addressee, and any other recipient(s); (e) the relationship of the author and addressee to each other; and (f) the basis for the privilege(s) asserted.
16. If any document responsive to this request was, but no longer is, in your possession, custody, or control, identify the document (by date, author, subject, and recipients), and explain the circumstances under which the document ceased to be in your possession, custody, or control.
17. If a date or other descriptive detail set forth in this request referring to a document is inaccurate, but the actual date or other descriptive detail is known to you or is otherwise apparent from the context of the request, produce all documents that would be responsive as if the date or other descriptive detail were correct.

18. This request is continuing in nature and applies to any newly-discovered information. Any record, document, compilation of data, or information not produced because it has not been located or discovered by the return date shall be produced immediately upon subsequent location or discovery.
19. All documents shall be Bates-stamped sequentially and produced sequentially.
20. Two sets of each production shall be delivered, one set to the Majority Staff and one set to the Minority Staff. When documents are produced to the Committee, production sets shall be delivered to the Majority Staff in Room 2157 of the Rayburn House Office Building and the Minority Staff in Room 2105 of the Rayburn House Office Building.
21. Upon completion of the production, submit a written certification, signed by you or your counsel, stating that: (1) a diligent search has been completed of all documents in your possession, custody, or control that reasonably could contain responsive documents; and (2) all documents located during the search that are responsive have been produced to the Committee.

### **Definitions**

1. The term “document” means any written, recorded, or graphic matter of any nature whatsoever, regardless of how recorded, and whether original or copy, including, but not limited to, the following: memoranda, reports, expense reports, books, manuals, instructions, financial reports, data, working papers, records, notes, letters, notices, confirmations, telegrams, receipts, appraisals, pamphlets, magazines, newspapers, prospectuses, communications, electronic mail (email), contracts, cables, notations of any type of conversation, telephone call, meeting or other inter-office or intra-office communication, bulletins, printed matter, computer printouts, teletypes, invoices, transcripts, diaries, analyses, returns, summaries, minutes, bills, accounts, estimates, projections, comparisons, messages, correspondence, press releases, circulars, financial statements, reviews, opinions, offers, studies and investigations, questionnaires and surveys, and work sheets (and all drafts, preliminary versions, alterations, modifications, revisions, changes, and amendments of any of the foregoing, as well as any attachments or appendices thereto), and graphic or oral records or representations of any kind (including without limitation, photographs, charts, graphs, microfiche, microfilm, videotape, recordings and motion pictures), and electronic, mechanical, and electric records or representations of any kind (including, without limitation, tapes, cassettes, disks, and recordings) and other written, printed, typed, or other graphic or recorded matter of any kind or nature, however produced or reproduced, and whether preserved in writing, film, tape, disk, videotape, or otherwise. A document bearing any notation not a part of the original text is to be considered a separate document. A draft or non-identical copy is a separate document within the meaning of this term.
2. The term “communication” means each manner or means of disclosure or exchange of information, regardless of means utilized, whether oral, electronic, by document or otherwise, and whether in a meeting, by telephone, facsimile, mail, releases, electronic

message including email (desktop or mobile device), text message, instant message, MMS or SMS message, message application, or otherwise.

3. The terms “and” and “or” shall be construed broadly and either conjunctively or disjunctively to bring within the scope of this request any information that might otherwise be construed to be outside its scope. The singular includes plural number, and vice versa. The masculine includes the feminine and neutral genders.
4. The term “including” shall be construed broadly to mean “including, but not limited to.”
5. The term “Company” means the named legal entity as well as any units, firms, partnerships, associations, corporations, limited liability companies, trusts, subsidiaries, affiliates, divisions, departments, branches, joint ventures, proprietorships, syndicates, or other legal, business or government entities over which the named legal entity exercises control or in which the named entity has any ownership whatsoever.
6. The term “identify,” when used in a question about individuals, means to provide the following information: (a) the individual’s complete name and title; (b) the individual’s business or personal address and phone number; and (c) any and all known aliases.
7. The term “related to” or “referring or relating to,” with respect to any given subject, means anything that constitutes, contains, embodies, reflects, identifies, states, refers to, deals with, or is pertinent to that subject in any manner whatsoever.
8. The term “employee” means any past or present agent, borrowed employee, casual employee, consultant, contractor, de facto employee, detailee, fellow, independent contractor, intern, joint adventurer, loaned employee, officer, part-time employee, permanent employee, provisional employee, special government employee, subcontractor, or any other type of service provider.
9. The term “individual” means all natural persons and all persons or entities acting on their behalf.