

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

ARCHITECTS & ENGINEERS FOR 9/11 TRUTH)
2342 Shattuck Ave.,)
Suite 189 Berkeley, CA 94704)
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AND)
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MATT CAMPBELL)
[address to be supplied])
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AND)
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DIANA HETZEL)
[address to be supplied])
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AND)
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ROBERT MCILVAINE)
[address to be supplied])
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AND)
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HELEN MCILVAINE)
[address to be supplied])
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AND)
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DREW DEPALMA)
[address to be supplied])
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AND)
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BARBARA KRUKOWSKI-RASTELLI)
[address to be supplied])
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AND)
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KATHLEEN PAPA)
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AND)
)

FRANCINE SCOCOZZO

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AND

LYNN AFFLECK, PE

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AND

WILLIAM BRINNIER

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AND

RONALD H. BROOKMAN

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AND

CHARLES MICHAEL HENRY

[address to be supplied]

AND

PETER KOSMOSKI, PE

[address to be supplied]

AND

SETH MCVEY, PE

[address to be supplied]

AND

JUSTIN MYERS

[address to be supplied]

AND

KAMAL OBEID, SE

[address to be supplied]

AND

DAVID A. PARKER)
[address to be supplied])

AND)

WILLIAM PREVATEL, AIA)
[address to be supplied])

Plaintiffs,)

v.) **Civil No. 21-2365**

GINA M. RAIMONDO, in her official capacity as)
Secretary of Commerce,)
Office of the Secretary)
U.S. Department of Commerce)
1401 Constitution Ave NW)
Washington, DC 20230)

AND)

DR. JAMES OLTHOFF, in his official capacity)
as Director of the National Institute for Standards and)
Technology,)
100 Bureau Drive, Stop 1000)
Gaithersburg, MD 20899-1000)

AND)

THE NATIONAL INSTITUTE OF STANDARDS)
AND TECHNOLOGY)
100 Bureau Drive, Stop 1000)
Gaithersburg, MD 20899-1000)

Defendants.)

COMPLAINT

1. This is an action for declaratory and injunctive relief under the Administrative Procedures Act.

2. This Complaint concerns actions contrary to law, and arbitrary and capricious actions, taken by the federal agency National Institute of Standards and Technology (NIST)

during the conduct of and reporting of results from a study of the collapse of World Trade Center Building 7 (WTC 7) on the day of the September 11, 2001, terrorist attacks in New York City.

3. NIST's Final Report on the Collapse of the World Trade Center Building 7 ("NCSTAR 1A") and NIST's Fire Response and Probable Collapse Sequence of World Trade Center Building 7 ("NCSTAR 1-9"), are collectively referred to herein as the "WTC 7 Report."

4. This Complaint is submitted by eight family members of people killed on September 11, 2001, by ten architects and structural engineers, and by the nonprofit organization Architects & Engineers for 9/11 Truth, Inc. ("Plaintiffs").

JURISDICTION

5. This court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331. This action involves claims under a federal statute, the Administrative Procedures Act.

6. The Plaintiffs each have standing to bring this action as reflected by the facts alleged herein.

VENUE

7. Venue is proper pursuant to 28 U.S.C. § 1391(e)(1) as one of the Defendants, Secretary of Commerce Raimondo, is a public official who resides, performs her official duties, in Washington, D.C.

PLAINTIFFS

8. All the Plaintiffs were Requestors in the Request for Correction (RFC) submitted to NIST under the Information Quality Act, and were parties to the subsequent appeal of NIST's denial of that RFC, which NIST actions are the focus of this Complaint.

9. Plaintiff Architects & Engineers for 9/11 Truth (AE) is a non-profit organization, incorporated in California that has conducted an independent multi-year scientific investigation

of the causes of the collapse of the WTC towers and WTC Building 7 on 9/11.

10. AE's mission includes investigation and education of the public as to the true reasons these WTC buildings collapsed on 9/11. AE pursues its mission by conducting research and educating the public about the scientific evidence related to the destruction of the three World Trade Center towers and by working with victims' families and others to advocate for a new investigation.

11. AE has submitted a petition to the U.S. Congress, signed by more than three thousand verified architects and engineers, calling upon the U.S. Congress to open a new investigation of the causes of the collapse of WTC 1, WTC 2, and WTC 7 on 9/11.

12. AE has made numerous public presentations over the years after the 9/11 Commission Report was issued in 2004 regarding various aspects of the technical evidence that supports the conclusion that pre-placed explosives and/or incendiaries, including nano-thermite or nano-thermate, were used to destroy WTC1, WTC2, and WTC7 on 9/11.

13. At the heart of AE's work is the deeply held conviction of its leaders and stakeholders that establishing the truth is essential to achieving justice for the nearly 3,000 people murdered on 9/11 and their families.

14. AE as an organization also supports the Petition submitted by the Lawyers' Committee for 9/11 Inquiry, Inc. ("Lawyers' Committee") to the United States Attorney for the Southern District of New York (see *infra*) and AE has authorized the Lawyers' Committee to add its name as an organization to the list of Petition signers submitted to the United States Attorney.

15. AE also joined in the Lawyers' Committee's August 30, 2019, application to the State Department's Rewards for Justice Program which involved submission to the State

Department of the Lawyers' Committee's Petition to the U.S. Attorney and federal grand jury and the evidentiary exhibits thereto related to the as-of-yet unprosecuted terrorist and other federal crimes related to the use of explosives and incendiaries to destroy WTC 1, WTC 2, and WTC 7 on 9/11.

16. Plaintiff Matt Campbell, a British national, is the brother of Geoffrey Thomas Campbell. Geoffrey Campbell was attending a Risk Waters conference on the 106th floor of WTC 1 (also known as the North Tower) when the building was struck by an aircraft at 8:46 AM on September 11, 2001. He died in the destruction of WTC 1 at 10:28 AM. His fragmented remains were identified by DNA analysis in 2002, 2004, 2008, and 2013.

17. An inquest into Geoffrey Campbell's death was held at West London Coroner's Court before Her Majesty's Coroner Alison Mary Thompson on January 29, 2013. In the same hearing the coroner also heard and concluded inquests into the deaths of nine other British victims who perished in the destruction of the Twin Towers and whose remains had been repatriated to the UK. This coroner concluded that Geoffrey's death was due to an aircraft being flown into the building by the terrorist organization Al Qaeda which this coroner concluded caused the building to collapse.

18. On the basis of substantial evidence not considered at the first inquest, the Campbell family, including Matt Campbell, disputes the coroner's finding that the impact of the aircraft into WTC 1 caused the building's subsequent total destruction.

19. Matt Campbell, and the Campbell family, on August 26, 2021, applied for a new inquest pursuant to the UK Coroners Act 1988, citing significant evidence not heard by the coroner at Mr. Campbell's first inquest in 2013. The family contends that the unheard evidence contradicts the coroner's official finding that the impact of the aircraft into World Trade Center 1

at 8:46 AM and the ensuing fires are what caused the building's total destruction at 10:28 AM, taking Geoffrey Campbell's life. They allege that the unheard evidence overwhelmingly supports the conclusion that the destruction of WTC 1 — as well as the destruction of WTC 2 and WTC 7 — was caused by the use of explosives and incendiaries.

20. The Campbell family has suffered for twenty years from Geoffrey being taken from them long before it was his time. Their grief was compounded by the gradual realization that they did not have the full truth about his murder. They need the truth in order to heal.

21. The Campbell family's application for a new inquest includes witness statements from six scientific experts and from five eyewitnesses to the World Trade Center's destruction, four of whom were first responders that day. The application contains around 2,500 pages of evidence as well as select volumes of the official reports issued by NIST.

22. The Campbell family submitted their application for a new inquest to the attorney general for England and Wales whose authority is sought for the family to apply to the High Court for an order granting a fresh inquest. For the attorney general's authority to be granted and a new inquest to be ordered, the Campbell family only needs to demonstrate that evidence not considered at the first inquest may lead to a different verdict. The family does not have the burden of proving to the attorney general or the High Court that a different verdict is likely.

23. The Campbell family also submitted their application for a new inquest to the senior coroner at the West London Coroner's Court, inviting him to consent to a fresh inquest. If he consents, the High Court can order a fresh inquest without the need for the attorney general's authority or a court hearing.

24. Should a new inquest be held, the Campbell family will pursue the verdict that their son was killed in the explosive demolition of WTC 1.

25. The Campbell family is represented in their application for a new inquest by Nick Stanage, a barrister at Doughty Street Chambers in London. Mr. Stanage specializes in actions and complaints against the police and in inquests, public inquiries, human rights, and judicial review. He sits as an Assistant Coroner and as a Legally Qualified Chair of Police Misconduct Hearings.

26. Plaintiff Diana Hetzel is the widow of Fire Fighter Thomas J. Hetzel, Ladder #13. They were married over 5 years. Their daughter, Amanda, was 2.5 years old at the time of 9/11. Tom was a wonderful loving husband who adored his daughter Amanda. He was a positive person and lover of life who always helped his family, friends, and neighbors. He dreamed of becoming a firefighter since he was a boy, and at 18, joined the local volunteer fire department. His dream of becoming a New York City fireman came true in October 1995 when he was inducted into the NYC Fire Service Academy. After graduation, Tom went to his dream firehouse, the one located on 85th Street between 3rd Avenue and Lexington Avenue in Manhattan. He liked being where the action was.

27. Tom Hetzel was working his 24-hour shift from the evening of September 10 through the days shift on September 11, 2001. He was called to duty downtown at the World Trade Center site right after the second plane hit the South Tower at approximately 9:04am. They were assigned to the South Tower but ended up operating in the North Tower. Tom's position that day was the outside vent man (OV), at the Trade Center his job entailed operating the elevator, bringing firemen up to certain floors and others back down. After the South Tower fell, Tom was bringing another fire man down when their elevator shook, and it got trapped between floors. Tom and the other firefighter managed to escape the elevator and found a staircase to descend. The other firefighter managed to escape, but Tom met up with someone

from his company and went down with them and went missing when Tower One collapsed at 10:29am.

28. Ms. Hetzel was not notified of Tom being missing until after 10pm on September 11, 2001. Throughout that day she believed that he was working rescuing and saving people and had no opportunity to reach out to her because the cell phone towers were out. She eventually reached out to another Fire Department wife. She believed at that time that the other wife she contacted knew that Ms. Hetzel's husband and the 9 other men from his truck company were all unaccounted for, but she didn't want to say so.

29. Eventually a Lieutenant from Ladder #13/Engine#22 called her to say Tom was missing. She asked how could a 6'4' guy be missing. She was in shock, not knowing what to say or how to react. The Lieutenant said he would keep in touch throughout the night and let her know if they found her husband. Tom was found three weeks after September 11th in a stairwell during the recovery operation. Ms. Hetzel and her daughter, Amanda, will forever have a huge void in their hearts and home without Tom. They each still seek counseling and do the best they can to deal with their new "normal" life.

30. Plaintiffs Robert and Helen McILvaine are the parents of Bobby McILvaine. Bobby McILvaine was killed at the World Trade Center on 9/11. Before entering Princeton, Bobby McILvaine was an honor student who played basketball and soccer at Upper Dublin High School in Fort Washington, Pa. After excelling in his studies at Princeton, Bobby entered the New York publishing world, working for Random House and Henry Holt & Co. He eventually moved to Merrill Lynch, where he was assistant vice president for Media Relations. At the time of his death on 9/11, he had been applying to graduate programs at Penn and Harvard.

31. When the McILvaines received word of the Twin Towers being attacked, they

weren't overly concerned because Bobby did not work at the Towers. He had an office in the World Financial Centre, just across the street. They later learned, much to their dismay, that Bobby had been in charge of setting up a banking conference at the Towers that morning. Their worry had become acute by nightfall when Bobby hadn't telephoned, which was so unlike him, since he called every day.

32. The next morning the McILvaines felt compelled to drive to New York and search for him. They went from hospital to hospital searching for any information on Bobby but found nothing. On Thursday, they received word that a body identified possibly as Bobby had been brought to the morgue. Their hearts fell as they headed there to identify their beloved son. Bobby's body was identified by dental records.

33. The coroner disclosed that Bobby suffered massive trauma to his upper body and face. Based on the injuries that Bobby sustained, Mr. McILvaine has concluded that Bobby was killed by a massive explosion as he was entering the WTC North Tower. He was one of the first bodies to be found and identified.

34. Because of the circumstances of Bobby's death and because government officials were not giving direct and complete answers to 9/11 family members regarding what happened on that day, Mr. McILvaine has felt an on-going need to investigate what really happened at the WTC on 9/11, an investigation he has pursued to this day for his son, Bobby.

35. Robert McILvaine, Bobby's father, supports the Petition submitted by the Lawyers' Committee to the United States Attorney for the Southern District of New York and the federal grand jury and has authorized the Lawyers' Committee to add his name to the list of Petition signers submitted to the United States Attorney.

36. Mr. McILvaine has been requesting, since 9/11, federal government agencies and

Congress to provide a true and complete explanation of how and why his son Bobby died at the WTC on 9/11.

37. In the above referenced Petition, Mr. McIlvaine and the other petitioners requested that the United States Attorney present the information in the Petition concerning alleged federal crimes to a federal special grand jury pursuant to the United States Attorney's duty to do so under 18 U.S.C. § 3332(a). On July 30, 2018, Mr. McILvaine and the other petitioners delivered to the Office of the United States Attorney for the Southern District of New York their fifty-eight page "First Amended Petition to Report Federal Crimes Concerning 9/11 to Special Grand Jury or in the Alternative to Grand Jury Pursuant to the United States Constitution and 18 U.S.C. § 3332(A)" (hereafter "Amended Petition"). The Petition and the Amended Petition presented extensive scientific evidence demonstrating the use of explosives and incendiaries to destroy WTC 1, WTC 2, and WTC 7.

38. Plaintiffs Drew DePalma and Francine Scocozzo are family members of Jean DePalma who was killed at the World Trade Center on 9/11. Drew DePalma is the son of Jean DePalma. He signed the Lawyers' Committee's Petition and joined in the aforementioned Lawyers' Committee's request to the United States Attorney. Francine Scocozzo is the sister of Jean DePalma.

39. Plaintiff Barbara Krukowski-Rastelli is the mother of William E. Krukowski who was killed at the World Trade Center on 9/11. Ms. Krukowski-Rastelli signed the Lawyers' Committee's Petition and joined in the aforementioned Lawyers' Committee's request to the United States Attorney.

40. Kathleen Papa is the daughter of Edward Papa, who was killed at the World Trade Center on 9/11.

41. If NIST is required to correct its WTC 7 Report as requested by Plaintiffs, such corrected report, which is required to be made available to the Public under the NCST Act, is reasonably expected to result in a better public understanding of the events of 9/11 and a more complete picture of the truth of what happened on 9/11, assisting the family members of the 9/11 victims, including those named above as plaintiffs herein, in coming to closure regarding this tragedy. This information has been sought by Plaintiffs who are family members of 9/11 victims for twenty years.

42. Plaintiffs Lynn Affleck, PE, a structural engineer, William Brinnier, an architect, Ronald H. Brookman, a structural engineer, Charles Michael Henry, an architect, Peter Kosmoski, PE, a structural engineer, Seth McVey, PE, a structural engineer, Justin Myers, an architect, Kamal Obeid, SE, a structural engineer, David A. Parker, an architect, and William Preatel, AIA, an architect, were each Requestors in the Request for Correction (RFC) submitted to NIST under the Information Quality Act, and were parties to the subsequent appeal of NIST's denial of that RFC, which NIST actions are the focus of this Complaint.

DEFENDANTS

43. Gina M. Raimondo is Secretary of Commerce, head of the Department of Commerce (DOC), the federal agency of which NIST is a part. Officials of the DOC participated in and/or consulted with NIST officials regarding NIST's decisions on Plaintiffs' RFC and Plaintiffs' administrative appeal to NIST of NIST's denial of the RFC.

44. Dr. James Olthoff serves as the Director of NIST, and Defendant NIST is the federal agency whose actions are the subject of this Complaint.

STATUTORY AND REGULATORY FRAMEWORK

45. Section 515 of Public Law 106-554 is commonly known as the Data Quality Act or Information Quality Act (herein referred to as the “IQA”).

46. The IQA, enacted in 2000, provides that the Director of the Office of Management and Budget (“OMB”) shall, with public and federal agency involvement, issue guidelines under sections 3504(d)(1) and 3516 of title 44, United States Code, that provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies in fulfillment of the purposes and provisions of the Paperwork Reduction Act. 44 U.S.C. § 3516, note.

47. The IQA required OMB’s Guidelines to direct each Federal agency to which the guidelines apply to issue agency specific guidelines ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by such agency.

48. The IQA also required OMB’s Guidelines to direct each Federal agency to establish administrative mechanisms allowing affected persons to seek and obtain correction of information maintained and disseminated by the agency that does not comply with the OMB and agency information quality guidelines.

49. The OMB, pursuant to the IQS, issued government-wide Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies (“OMB Guidelines”). On June 28, 2001, the OMB issued its proposed guidelines implementing the IQA and requesting public comment. 66 Fed.Reg. 34489. OMB issued its updated final guidelines on February 22, 2002. 67 Fed.Reg. 8452.

50. The OMB guidelines require agencies to “adopt a basic standard of quality (including objectivity, utility, and integrity) as a performance goal,” including “specific standards of quality that are appropriate for the various categories of information they disseminate.” 67

Fed.Reg. 8458–59. “Quality is to be ensured and established at levels appropriate to the nature and timeliness of the information to be disseminated.” *Id.* at 8458.

51. The OMB Guidelines state that “‘Objectivity’ includes whether disseminated information is being presented in an accurate, clear, complete, and unbiased manner.” *Id.* at 8460.

52. The OMB Guidelines also require that agencies provide “administrative mechanisms allowing affected persons to seek and obtain, where appropriate, timely correction of information maintained and disseminated by the agency that does not comply with OMB or agency guidelines.” *Id.* at 8459.

53. The OMB commentary provided when the OMB Guidelines were published states, in regard to an agency’s administrative mechanism allowing affected persons to seek and obtain timely correction of information, that “an objective process will ensure that the office that originally disseminates the information does not have responsibility for both the initial response and resolution of a disagreement.” *Id.* at 8458.

54. NIST in turn, pursuant to the IQA and the OMB Guidelines, issued its own “Guidelines, Information Quality Standards, and Administrative Mechanism” (“NIST IQS”).

55. The NIST IQS define information as follows:

Information means any communication or representation of knowledge such as facts or data, in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual forms. This definition includes information that an agency disseminates from a Web page but does not include the provision of hyperlinks to information that others disseminate. This definition does not include opinions, where the agency’s presentation makes it clear that what is being offered is someone’s opinion rather than fact or the agency’s views.

56. The NIST IQS defines dissemination as follows:

Dissemination means agency initiated or sponsored distribution of information to the public. Dissemination does not include distribution

limited to government employees or agency contractors or grantees; intra- or inter-agency use or sharing of government information; and responses to requests for agency records under the Freedom of Information Act, the Privacy Act, the Federal Advisory Committee Act or other similar law. This definition also does not include distribution limited to correspondence with individuals or persons, press releases, archival records, public filings, subpoenas or adjudicative processes.

57. Under the OMB Guidelines and the NIST IQS, information quality comprises three elements: utility, integrity, and objectivity.

58. “Utility” under the NIST IQS means that the information is “useful to its intended users.” The term “useful,” in turn, means that the information is “helpful, beneficial, or serviceable to its intended users.” The NIST IQS further provides that “Where the usefulness of information will be enhanced by greater transparency, care is taken that sufficient background and detail are available, either with the disseminated information or through other means, to maximize the usefulness of the information. The level of such background and detail is commensurate with the importance of the particular information, balanced against the resources required, and is appropriate to the nature and timeliness of the information to be disseminated.”

59. “Integrity” under the NIST IQS means that before information is disseminated by NIST, it is “safeguarded from improper access, modification, or destruction.” Furthermore, the integrity of information is protected “to a degree commensurate with the risk and magnitude of harm that could result from the loss, misuse, or unauthorized access to or modification of such information.”

60. “Objectivity” under the NIST IQS means that the information is “accurate, reliable, and unbiased.” Moreover, “objective” information is “presented in an accurate, clear, complete, and unbiased manner.” In the case of scientific information, “the original and supporting data are generated, and the analytic results are developed, using sound statistical and

research methods.”

61. The OMB Guidelines and the NIST IQS apply stricter quality standards to the dissemination of information that is considered “influential.” The OMB Guidelines define as “influential” information that “will have or does have a clear and substantial impact on important public policies or important private sector decisions.” The NIST IQS defines “influential” similarly.

62. Regarding influential scientific information and analytic results related thereto, the OMB Guidelines dictate that “agency guidelines shall generally require sufficient transparency about data and methods that an independent reanalysis could be undertaken by a qualified member of the public.” (See 67 F.R. 8460.) Citing OMB Guidelines, the NIST IQS states that “agency guidelines shall include a high degree of transparency about data and methods to facilitate the reproducibility of such information by qualified third parties.”

63. “Reproducibility” under the NIST IQS means that the information is “capable of being substantially reproduced, subject to an acceptable degree of imprecision. For information judged to have more (less) important impacts, the degree of imprecision that is tolerated is reduced (increased).” The NIST IQS states that “With respect to analytic results, ‘capable of being substantially reproduced’ means that independent analysis of the original or supporting data using identical methods would generate similar analytic results, subject to an acceptable degree of imprecision or error.” (See *id.*) In other words, if independent analysis of the original or supporting data using identical methods does not generate similar analytic results, the disseminated information does not meet the reproducibility standard imposed on “influential” information.

64. NIST was required by law to generate the NIST WTC 7 Report under the

National Construction Safety Team Act (“NCST Act”) (Pub. Law 107-231, 15 U.S.C. § 7301 et seq.), and did so generate the NIST WTC 7 Report in November 2008.

65. The NCST Act, 15 U.S.C. § 7307, mandates the issuance of a final public report following a NIST investigation of a building collapse subject to the Act.

FACTS COMMON TO ALL COUNTS

66. The preceding paragraphs are incorporated herein by reference.

67. The horrendous attacks of September 11, 2001 (9/11) were the worst attacks on American soil since Pearl Harbor, and perhaps the worst such attacks in the history of the United States.

68. It is well known that on 9/11, on the morning of the terrorist attacks in New York City, the two World Trade Center (WTC) towers (WTC 1 and WTC 2) completely and rapidly collapsed, resulting in the tragic deaths of over two thousand people, including first responders and citizens working in and visiting the WTC, and exacerbating the already tragic loss of the passengers and crews on the hijacked aircraft. What is less well known is that also on 9/11 a third WTC building, WTC 7, completely collapsed, much later in the day, without having been struck by an aircraft.

69. WTC 7’s collapse was rapid, symmetrical, and in every respect appeared to be a controlled demolition.

70. There were also reports on 9/11 from witnesses that there were explosions at the WTC and in WTC 7 prior to and at the time of the collapses of WTC 1, WTC 2, and WTC 7.

71. Many more people have died after 9/11 as a result of exposure to the toxic and corrosive materials that contaminated the air following the collapse on 9/11 of WTC 7, WTC 1, and WTC 2.

72. The National Institute of Standards and Technology (NIST) was charged with investigating and reporting the cause of WTC 7's collapse.

73. NIST in November 2008 issued its findings and conclusions regarding the collapse of WTC 7 in its WTC 7 Report.

74. NIST, through the NIST WTC 7 Report and the NIST WTC 7 FAQs, has disseminated inaccurate, unreliable, or biased information about the collapse of the WTC 7.

75. As alleged *infra* in more detail, the NIST WTC 7 Report and the NIST WTC 7 FAQs contain information that violates the IQA, the OMB Guidelines, and the NIST IQS.

76. As alleged *supra* and *infra* in more detail, NIST's violations of the IQA, the OMB Guidelines, and the NIST IQS significantly and adversely affect Plaintiffs, some of whom are family members of those who died in the 9/11 attacks at the WTC, and some of whom are professional architects and engineers.

77. The dissemination by NIST of inaccurate, unreliable, or biased information concerning the collapse of WTC 7 may lead to (and may have already led to) the adoption of unnecessary and improper changes to building codes, standards, and practices. These changes to building codes, standards, and practices could, in turn, lead to needless deaths and injuries if such codes and standards are too lenient or to unnecessary expenses if they are too strict.

78. The NIST WTC 7 Report is "influential" information under the IQA.

79. The correction of the WTC 7 Report would serve a useful purpose.

80. Should the correction of the NIST WTC 7 Report render a finding that the collapse of WTC 7 was caused not by fires but by a controlled demolition, it would instantly cast extreme doubt on NIST's separate findings that the total destruction of two other WTC buildings on 9/11, the WTC Towers, was caused by the airplane impacts and ensuing fires alone, and

would most likely lead to congressional and criminal investigations to identify those responsible for the destruction of all three buildings.

81. Should the correction of the NIST WTC 7 Report render a finding that the collapse of WTC 7 was caused not by fires but by a controlled demolition, government efforts and efforts by architects and engineers and building owners could and would, of necessity, change focus from being concerned with illusory design defects thought to create vulnerability to fire induced collapse in steel framed high-rise buildings to the real threat that steel framed high-rise buildings are (only) vulnerable to collapse if terrorists (whether foreign or domestic) breach security and can access the weight bearing structures of the building to plant explosives and incendiaries. This real threat is an imminently preventable threat by implementation of security measures once this threat is recognized.

82. Information contained in the NIST WTC 7 Report and the NIST WTC 7 FAQs is a communication of facts and data. The NIST WTC 7 Report was disseminated by NIST via the following webpage: <https://www.nist.gov/el/final-reports-nist-world-trade-center-disaster-investigation>.

83. Information contained in the NIST WTC 7 FAQs is information disseminated from a webpage. The NIST WTC 7 FAQs were disseminated by NIST via the following webpage: <https://www.nist.gov/topics/disaster-failure-studies/faqs-nist-wtc-7-investigation>.

84. Nowhere within the NIST WTC 7 Report or the NIST WTC 7 FAQs does NIST make it clear that what is being offered is someone's opinion rather than fact or the agency's views.

85. NIST has publicly stated that, although it consulted an outside advisory committee, the content of NIST's WTC 7 Report and recommendations are solely the responsibility of NIST.

86. Plaintiffs submitted their Request for Correction (RFC) under the IQA to NIST on April 15, 2020.

87. Plaintiffs filed their RFC with NIST because NIST's conclusion that fires initiated by debris damage from the collapse of one of the towers, WTC 1, caused the collapse of WTC 7 was simply incompatible with the then-available scientific and witness evidence.

88. Plaintiffs' RFC presented a scientifically and logically irrefutable case based on careful documentation of dispositive evidence clearly showing that the NIST WTC 7 Report's conclusion and rationale that the collapse of WTC 7 on 9/11 was due to fires and not the use of explosives and incendiaries was more than just wrong, it was also factually inaccurate, methodologically unreliable, scientifically unsound, illogical, and biased that it blatantly violated NIST's IQS requirements of objectivity, utility, transparency, and reproducibility.

89. The Initial Decision by NIST denying Plaintiffs' RFC was issued on August 28, 2020.

90. Plaintiffs' administrative Appeal of the Initial Decision Regarding the Request for Correction to NIST's Final Report on the Collapse of World Trade Center Building 7 (Information Quality #20-01) was submitted to NIST on September 28, 2020.

91. Plaintiffs submitted to NIST on June 1, 2021, a Request for Issuance of Final Decision, and Alternative Notice of Intent to Sue due to NIST's eight-month delay in deciding Plaintiffs' Appeal.

92. On June 30, 2021, NIST issued its decision denying Plaintiffs' administrative Appeal of NIST's denial of Plaintiffs' RFC.

93. The corrected information regarding the collapse of WTC 7 that Plaintiffs sought to obtain via their RFC and administrative Appeal to NIST, via a corrected WTC 7 Report, a report required to be made available to the Public under the NCST Act and required to meet transparency standards under the IQA, is information that goes to the heart of the organizational mission of Plaintiff AE.

94. NIST's denial of the Plaintiffs' RFC and subsequent administrative appeal, and NIST's underlying lack of transparency, and use of information in the WTC 7 Report that lacks integrity, objectivity, utility, and reproducibility obstructs Plaintiff AE's ability to perform its nonprofit public interest mission.

95. Plaintiff Matt Campbell, Plaintiff Robert McILvaine, and Plaintiff Architects and Engineers for 9/11 Truth each have one or more petitions pending under either the Constitution of the United States, 18 U.S.C. § 3332(a), British law regarding opening an inquest, and/or the U.S. State Department's Rewards for Justice Program, including a petition to Congress and a petition to a U.S. Attorney and a federal grand jury, the outcome of which could be materially affected by whether NIST corrects its WTC 7 Report and acknowledges that the cause of the collapse of WTC 7 was the use of explosives and incendiaries. Plaintiffs have invested considerable time and significant amounts of money into preparing and prosecuting these petitions, as well as the RFC and administrative Appeal.

96. Plaintiff Architects and Engineers for 9/11 Truth filed an application, along with the Lawyers' Committee, to the State Department under the Rewards for Justice Program (RFJ). The RFJ is the U.S. Department of State's Counter-Terrorism Rewards Program, and was

established by the 1984 Act to Combat International Terrorism, Public Law 98-533 (codified at 22 U.S.C. § 2708). Administered by the State Department's Bureau of Diplomatic Security, RFJ's goal is to bring international terrorists to justice and prevent acts of international terrorism against U.S. persons or property. Under this program, the Secretary of State may authorize rewards for information that leads to the arrest or conviction of anyone who plans, commits, or attempts international terrorist acts against U.S. persons or property.

97. Most RFJ reward offers are for up to \$5 million. However, reward offers can range from under \$1 million to up to \$25 million. In addition, RFJ can also pay rewards in cases where there is no prior reward offer, in appropriate circumstances. Since its inception, RFJ has paid more than \$125 million to over 80 individuals for information that prevented international terrorist attacks or helped bring to justice those involved in prior acts. Reward payment amounts are based on a number of factors, including, but not limited to, the threat posed by a given terrorist, the severity of the danger or injury to U.S. persons or property, and the value of the information provided.

98. Although the collapse of WTC 7 on 9/11 is not known to have directly caused the death of any member of the family of the Plaintiffs, the collapse on 9/11 of WTC 1 and WTC 2 did. If evidence were revealed or confirmed by NIST that any one of these three WTC buildings, WTC 1, WTC 2, or WTC 7, collapsed on 9/11 due to the use of explosives and incendiaries, then the collapses of the other two of these WTC buildings on 9/11 would be immediately suspect as having had the same cause. The ensuing investigations, government and private, would lead to the discovery that explosives and incendiaries were used to cause the complete collapse of all three of these WTC buildings.

COUNT I: Defendant Agency NIST Acted Arbitrarily and Capriciously in Denying

Plaintiffs' IQA Request for Correction, and Subsequent Administrative Appeal, Regarding NIST's WTC 7 Report, in Adopting an Irrational Rationale for Omitting a Known WTC 7 Structural Feature, the Presence of Which Would Have Precluded NIST's Asserted Collapse Sequence

99. All of the foregoing and subsequent paragraphs are incorporated herein by reference.

100. This claim is brought pursuant to the Administrative Procedures Act (APA), 5 U.S.C. §§ 702, 706.

101. NIST's modelling is reported by NIST in NIST's WTC 7 Report to have shown that World Trade Center Building 7 (WTC 7) collapsed due to Girder A2001, the girder spanning between Columns 79 and 44, walking off of its support at Column 79 due to stresses and flexure caused by heat from fires in WTC 7 on 9/11, heat that caused Beam K3004 to expand pushing Girder A2001 off of its seat.

102. WTC 7 Girder A2001 had partial height web stiffeners measuring 3/4 inches thick x 5.5 inches wide x 18 inches high, as indicated in WTC 7 fabrication shop drawing "Frankel 9114."

103. A primary purpose of the web stiffeners is to prevent web crippling failures, a purpose NIST has acknowledged.

104. In addition to stiffening a girder web, these stiffeners significantly increase the bending resistance of the girder flange and would have prevented it from failing due to the stresses and flexure NIST's WTC 7 modelling predicted.

105. NIST in its final 16-story ANSYS modelling and WTC 7 Report omitted the presence of web stiffeners on WTC 7 Girder A2001 that significantly increase the bending resistance of the Girder A2001 flange and would have prevented Girder A2001 from failing due

to flexure, thus preventing it from walking off its support at Column 79. When the web stiffeners that NIST omitted from its analyses are included, the first major step leading to the initiating local failure in NIST's Probable Collapse Sequence is physically impossible.

106. Those web stiffeners would have prevented the girder flange failure and walk-off of Girder A2001 from its support on Column 79, which NIST concluded was a necessary step in the sequence of events that NIST asserts caused the collapse of WTC 7 on 9/11.

107. NIST's omission of these web stiffeners is evident in Figure 8-21 of NIST's NCSTAR 1-9 report.

108. The omission of these web stiffeners was also confirmed via email on October 25, 2013, by NIST public affairs officer Michael Newman.

109. NIST did not address the omission of the Girder A2001 web stiffeners either in the NIST WTC 7 Report or in the NIST WTC 7 FAQs.

110. The NIST WTC 7 Report provides no analysis, calculations, or figures explaining how or why Girder A2001 actually walked off of its support at Column 79 in its 16-story ANSYS model. NIST provided only a conclusory, but erroneous, assertion that the thermal expansion of Beam K3004 pushed Girder A2001 far enough to cause this walk-off.

111. NIST's excuse in its Initial Decision for omitting the partial height web stiffeners in its final 16-story ANSYS modelling was that the stiffeners were not needed to prevent flange bending because no flange bending occurred in NIST's preliminary LS-DYNA analysis.

112. This NIST excuse is simply irrational because NIST's Final Report notes that flange bending is an instrumental part of the WTC 7 Girder A2001 walk-off of its support at Column 79, a failure that NIST concludes occurred, and because in NIST's preliminary LS-

DYNA analysis, Girder A2001 was not pushed to a position where flange bending and walk-off would occur.

113. Plaintiff AE did request and fund a study by Professor Leroy Hulsey of the University of Alaska (“UAF Report”) which conducted computer modelling of the WTC 7 collapse. That study cost AE \$316,153.

114. The UAF report, and basic engineering analysis, make clear that the girder flange bending and Girder A2001 walk-off at Column 79 reported by NIST in its WTC 7 Report would not occur if the stiffener plates were included in the computer modelling.

115. When the web stiffeners that NIST omitted from its analyses are included in computer modelling, the first major step leading to the initiating local failure in NIST’s Probable Collapse Sequence presented in NIST’s WTC 7 Report is shown to be physically impossible.

116. There was no rational basis for NIST to exclude the stiffeners from its 16-story ANSYS model final modelling of the WTC 7 collapse. NIST arbitrarily and intentionally omitted a known structural feature of WTC 7 that materially affected the result of NIST’s analysis of the cause of the collapse of WTC 7 on 9/11.

117. NIST had no rational basis to deny Plaintiffs’ request in the Plaintiffs’ RFC and subsequent Appeal to re-run its computer modelling with the stiffeners included.

118. There is no reasonable basis for NIST not performing the new analyses requested by Plaintiffs in their RFC and subsequent Appeal since NIST has acknowledged it omitted the web stiffeners from its analyses, and this omission has been shown to have materially affected the results of NIST’s analyses.

119. Apart from and in addition to NIST’s above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in omitting the stiffeners, NIST’s

WTC 7 Report is also contrary to the IQA, the OMB Guidelines and the NIST IQS standards for Quality, which include Objectivity, Utility, and Integrity, because it is inaccurate, unreliable, and biased due to the intentional omission of a known structural feature, the stiffeners, that materially affects the result of the analysis. This violates the objectivity element of information quality under the OMB Guidelines and NIST IQS.

120. NIST's claim also violates the objectivity element of information quality because it is not presented in a complete manner.

121. NIST's claim also violates the utility element of information quality because care was not taken to make sufficient background and detail available regarding its analysis and claims regarding Girder A2001 walk off in the presence or absence of the Stiffeners, even though greater transparency would have enhanced the usefulness of the information disseminated. NIST merely provides a brief summary of its analysis results and provides no statement regarding the omission of a known structural feature.

122. NIST's WTC 7 Report and its analysis therein violates the transparency standard imposed upon influential information because NIST did not practice a degree of transparency sufficient to facilitate reproducibility. NIST's assertion that Girder A2001 walked off of its seat at Column 79, without addressing NIST's intentional omission of the stiffeners and the effect thereof, violates the reproducibility standard imposed upon influential information because — to the extent that independent analysis of the original data using identical methods could be performed — contradictory analytic results were generated by the UAF study.

123. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in omitting the stiffeners, NIST's WTC 7 Report is also contrary to the NIST IQS standards for Quality of "influential"

information, which standards include Transparency and Reproducibility, due to the intentional omission of a known structural feature, the stiffeners, that materially affects the result of the analysis. If independent investigators, scientists, researchers, or another government agency attempted to reproduce NIST's WTC 7 study results with the information provided in the NIST WTC 7 Report, they would not know that NIST had omitted the stiffeners and their independent modelling would result in significantly different conclusions (because the presence of the stiffeners in the independent modelling would effectively prevent the WTC 7 collapse sequence, and collapse, that NIST asserts in its WTC 7 Report).

124. In light of the admitted fact that the stiffeners were present on WTC 7 Girder A2001, NIST's claim that Girder A2001 walked off its support at Column 79 based on computer modelling that did not include the stiffeners, fails to comply with the OMB Guidelines and NIST IQS.

125. NIST, in its actions alleged in this Count I, and also in its actions alleged in Counts II-VIII and X, abdicated its statutory responsibilities under the IQA.

126. For all the reasons stated herein, this Court should issue an order declaring NIST to have acted irrationally, and therefore arbitrarily and capriciously, in its denial of Plaintiffs' RFC and subsequent appeal, and issue a mandatory injunction requiring NIST to correct its WTC 7 Report to include valid and transparent computer modelling of the collapse of WTC 7 that incorporates the presence of the partial height web stiffeners on WTC 7 Girder A2001 (and in all locations on WTC 7 where these stiffeners were actually installed).

127. This injunction should also require NIST, pending the results of its new analysis, to revise the NIST WTC 7 Report to reflect that Girder A2001 would not have walked off its

support at Column 79 and require NIST to discard its Probable Collapse Sequence and develop a new Probable Collapse Sequence for WTC 7 that is physically possible.

COUNT II: Defendant Agency NIST Acted Arbitrarily and Capriciously in Denying Plaintiffs' IQA Request for Correction, and Subsequent Administrative Appeal, Regarding NIST's WTC 7 Report, in Adopting an Irrational Rationale, Contrary to Established Scientific Principles, Mathematics, and the Available Evidence, that the Thermal Expansion of Beam K3004 Could Cause Girder A2001 to Walk Off Its Column 79 Support Initiating NIST's WTC 7 Probable Collapse Sequence

128. All of the foregoing and subsequent paragraphs are incorporated herein by reference.

129. This claim is brought pursuant to the Administrative Procedures Act (APA), 5 U.S.C. §§ 702, 706.

130. In NIST's WTC 7 Report, NIST concluded that the thermal expansion of beam K3004 (from fires in the building) could and probably did cause Girder A2001 to walk off its Column 79 support (seat), which was the key initiating event in NIST's asserted WTC 7 collapse sequence.

131. Beam K3004 was the closest beam to Column 79, framing into Girder A2001 from the east. Therefore, the thermal expansion of Beam K3004 dictated the extent of westward displacement of Girder A2001 at Column 79.

132. Initially, the NIST WTC 7 Report stated that the amount of westward displacement required to make Girder A2001 walk off its support at Column 79 was 5.5 inches, based on the bearing seat having a width of 11 inches (see NCSTAR 1-9, p. 527).

133. Subsequently, independent researchers discovered that the bearing seat at Column 79 was actually 12 inches wide and informed NIST of the error.

134. NIST was then forced to revise its dimensions for the seat to 12 inches wide. In

response to the independent researchers' discovery and report to NIST, NIST issued an erratum in June 2012 that adjusted the bearing seat width to 12 inches and the distance needed for walk-off to 6.25 inches.

135. In its erratum, NIST claimed that the errors were merely typographical and that “[t]he dimensions and lateral displacements used in the analyses were correct. (See Errata for NIST NCSTAR 1A, NIST NCSTAR 1-9, and NIST NCSTAR 1-9A, p. 2.).

136. NIST acknowledged, given this correction/erratum, that 6.25 inches of expansion of beam K3004 would be required to cause Girder A2001 to walk off its Column 79 seat.

137. This correction regarding the amount of expansion of Beam K3004 required, from 5.5 inches to 6.25 inches, made the walk-off of Girder A2001 under NIST's Probable Collapse Sequence physically impossible, a fact NIST has yet to admit.

138. Mathematical calculations show that the maximum thermal expansion of beam K3004 that could be reached at any of the different temperatures experienced in WTC 7 on 9/11 is 5.728 inches, which occurs at 654 °C. It is at this temperature that the marginal increase in *shortening* due to heat-induced *sagging* begins to *exceed* the marginal increase in heat-induced *expansion*. Beyond this temperature, Beam K3004 becomes progressively *shorter* as it is heated to higher temperatures.

139. It was physically impossible for beam K3004 to push Girder A2001 westward at least 6.25 inches, because the furthest beam K3004 could expand was 5.728 inches.

140. Mathematical analysis of the thermal expansion potential of beam K3004 shows that Beam K3004 could not expand far enough to push girder A2001 off its seat.

141. NIST has provided no analysis calculations, or figures in its WTC 7 Report, in its FAQ, in its Erratum, in its Initial Decision on Plaintiffs' RFC, or in its final decision on

Plaintiffs' Appeal, showing otherwise.

142. Because the width of the Column 79 seat supporting Girder A2001 was 12 inches, one inch wider than NIST initially reported and one inch wider than NIST assumed in its computer modelling calculations, the first major step leading to the initiating local failure in NIST's WTC 7 Probable Collapse Sequence -- Girder A2001 walk off of its Column 79 seat due to thermal expansion of Beam K3004 -- is physically impossible.

143. NIST ignored the limit of how far Beam K3004 could thermally expand and its resulting inability to cause the walk-off of Girder A2001.

144. NIST did not re-run its computer modelling of the WTC 7 building collapse after learning that the width of the Column 79 seat for Girder A2001 was 12 inches rather than 11 inches.

145. In light of the fact that Beam K3004 could not have thermally expanded 6.25 inches, and therefore WTC 7 Girder A2001 could not have been pushed off of its Column 79 seat, NIST's claim that Girder A2001 walked off its support at Column 79 fails to comply with the OMB Guidelines and NIST IQS because it lacks objectivity, utility, transparency, and reproducibility.

146. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in its calculation of thermal expansion of Beam K3004 and use of an incorrect width for Girder A2001's Column 79 seat, NIST's WTC 7 Report is also contrary to the IQA, the OMB Guidelines and the NIST IQS standards for Quality, which include Objectivity, Utility, and Integrity because it is inaccurate, unreliable, and biased due to use of knowingly false or clearly incorrect calculations of thermal expansion of Beam K3004, and/or knowingly false or clearly in error dimensions for the Column

79 seat for Girder A2001. Such use of false or clearly incorrect information of these types materially affects the result of the analysis of the collapse of WTC 7.

147. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in its calculation of thermal expansion of Beam K3004 and use of an incorrect width for Girder A2001's Column 79 seat, NIST's WTC 7 Report is also contrary to the NIST IQS standards for Quality of "influential" information, which standards include Transparency and Reproducibility, due to use of knowingly false or clearly incorrect calculations of thermal expansion of Beam K3004, and/or knowingly false or clearly in error dimensions for the Column 79 seat for Girder A2001.

148. If independent investigators, scientists, researchers, or another government agency attempted to reproduce NIST's WTC 7 study results with the information provided in the NIST WTC 7 Report, they would either: A) Be forced to use key factual information either known to be false or clearly in error regarding the dimensions for the Column 79 seat for Girder A2001, and/or regarding calculations of thermal expansion of Beam K3004, or B) Would have to find their own correct sources of fact information for the Column 79 seat dimensions and for the thermal expansion calculations for Beam K3004.

149. The consequence of this data dilemma created by NIST's improper non-IQA approach to the WTC 7 modelling and the WTC 7 Report is that the independent researchers' modelling would, if they followed approach "B" referenced immediately above, result in significantly different conclusions (because they would have used the correct data and calculations) than NIST's WTC 7 collapse sequence, i.e. the independent researchers would not be able to replicate or reproduce NIST's results.

150. Alternatively, these independent researchers would, if they followed approach “A” referenced above, use the false and inaccurate dimensions and calculations in NIST’s WTC 7 Report. Although this approach would, theoretically, replicate NIST’s WTC 7 collapse sequence asserted in NIST’s WTC 7 Report (if NIST were to make its modelling program and inputs available to independent researchers, which has yet to occur, and that modelling was functional and valid), at minimum this approach would not comply with the IQA and would be arbitrary and capricious, if not fraudulent, because it would be based on false dimensions for a key structural component and false calculations for the thermal expansion of a key beam, which materially alter the results.

151. NIST’s claim is inaccurate, unreliable, and apparently biased because it is inconsistent with the limit of how far beam K3004 could thermally expand.

152. NIST’s failure to show how far beam K3004 expanded in its 16-story ANSYS model violates the objectivity element of information quality because NIST’s claim is not presented in a complete manner. If the analyses indicated that Girder A2001 was pushed laterally at least 6.25 inches, as NIST claimed in its June 2012 erratum, NIST should specify how far beam K3004 expanded. NIST’s failure to show how far beam K3004 expanded also violates the utility element of information quality because care was not taken to make sufficient background and detail available regarding its claim, even though greater transparency would have enhanced the usefulness of the information disseminated.

153. NIST’s claim violates the transparency standard imposed upon influential information because NIST did not practice a degree of transparency sufficient to facilitate reproducibility.

154. NIST's claim violates the reproducibility standard imposed upon influential information because — to the extent that independent analysis of the original data could be performed — contradictory analytic results were generated by the UAF study.

155. For all the reasons stated herein, this Court should issue an order declaring NIST to have acted irrationally, and therefore arbitrarily and capriciously, in its denial of Plaintiffs' RFC and subsequent appeal, and issue a mandatory injunction requiring NIST to correct its WTC 7 Report to include valid and transparent computer modelling of the collapse of WTC 7 that incorporates the correct width for the Column 79 seat for Girder A2001 and that correctly calculates the maximum thermal expansion of Beam K3004.

156. This injunction should also require NIST, pending the results of its new analysis, to revise the NIST WTC 7 Report to reflect that Beam K3004 could not thermally expand enough to cause Girder A2001 to walk off its support at Column 79 and require NIST to discard its Probable Collapse Sequence and develop a new Probable Collapse Sequence for WTC 7 that is physically possible.

COUNT III: Defendant Agency NIST Acted Arbitrarily and Capriciously in Denying Plaintiffs' IQA Request for Correction, and Subsequent Administrative Appeal, in Omitting and Failing to Analyze Key Available Evidence of Sulfidation and Erosion of WTC 7 Steel on 9/11, Evidence that Is Inconsistent with NIST's WTC 7 Report Conclusion of a Fire Driven Collapse, and which Supports the Alternative Explanation that Use of Explosives and Incendiary Materials Caused the WTC 7 Collapse

157. All of the foregoing and subsequent paragraphs are incorporated herein by reference.

158. This claim is brought pursuant to the Administrative Procedures Act (APA), 5 U.S.C. §§ 702, 706.

159. Photos, physical samples, and expert analysis of WTC steel, after the collapse on 9/11 of WTC 1, WTC 2, and WTC 7, demonstrate the occurrence of sulfidation and erosion of WTC steel.

160. As documented in Appendix C of the FEMA World Trade Center Building Performance Study (referred to herein as the “FEMA Report”), published in May 2002, a metallurgical examination was conducted on samples taken from two structural members found in the World Trade Center debris. The three authors of Appendix C — Jonathan Barnett, Ronald R. Biederman, and R. D. Sisson, Jr., who were all professors at the Worcester Polytechnic Institute (WPI) — conducted the metallurgical examination. One of the samples they examined was taken from a beam that appeared to be from WTC 7. The second sample was taken from a beam that appeared to be from WTC 1 or WTC 2. Although the exact location of the beam in the WTC 7 structure could not be determined, the authors noted that “the severe erosion found in several beams warranted further consideration.”

161. Appendix C of the FEMA Report provided the following analysis of the sample taken from WTC 7 (see FEMA Report, p. C-1 to C-2):

Evidence of a severe high temperature corrosion attack on the steel, including oxidation and sulfidation with subsequent intergranular melting, was readily visible in the near-surface microstructure. A liquid eutectic mixture containing primarily iron, oxygen, and sulfur formed during this hot corrosion attack on the steel. This sulfur-rich liquid penetrated preferentially down grain boundaries of the steel, severely weakening the beam and making it susceptible to erosion. The eutectic temperature for this mixture strongly suggests that the temperatures in this region of the steel beam approached 1,000 °C (1,800 °F), which is substantially lower than would be expected for melting this steel.

162. The concluding section of Appendix C, entitled “Suggestions for Future Research,” stated 7 (see FEMA Report, p. C-13):

The severe corrosion and subsequent erosion of Samples 1 and 2 are a

very unusual event. No clear explanation for the source of the sulfur has been identified. The rate of corrosion is also unknown. It is possible that this is the result of long-term heating in the ground following the collapse of the buildings. It is also possible that the phenomenon started prior to collapse and accelerated the weakening of the steel structure. A detailed study into the mechanisms of this phenomenon is needed to determine what risk, if any, is presented to existing steel structures exposed to severe and long-burning fires. (Emphasis added.)

163. The observed erosion of the steel was such an unusual event that The New York Times published a story in February 2002 calling it “perhaps the deepest mystery uncovered in the investigation.” Transformations, a publication at WPI, published an article entitled “The ‘Deep Mystery’ of Melted Steel,” which described the eroded steel as follows:

[S]teel — which has a melting point of 2,800 degrees Fahrenheit — may weaken and bend, but does not melt during an ordinary office fire. Yet metallurgical studies on WTC steel brought back to WPI reveal that a novel phenomenon — called a eutectic reaction — occurred at the surface, causing intergranular melting capable of turning a solid steel girder into Swiss cheese. . . . The New York Times called these findings “perhaps the deepest mystery uncovered in the investigation.” The significance of the work on a sample from Building 7 and a structural column from one of twin towers becomes apparent only when one sees these heavy chunks of damaged metal. A one-inch column has been reduced to half-inch thickness. Its edges — which are curled like a paper scroll — have been thinned to almost razor sharpness. Gaping holes — some larger than a silver dollar — let light shine through a formerly solid steel flange. This Swiss cheese appearance shocked all of the fire-wise professors, who expected to see distortion and bending — but not holes.

164. The NIST WTC 7 Report omits any mention of the severely eroded steel from WTC 7, and the NIST WTC 7 FAQs go as far as claiming that no identifiable steel from WTC 7 was recovered.

165. The documented phenomenon of sulfidation and erosion of WTC steel cannot be accounted for by a jet fuel fire in, or by a gravity-driven collapse of, WTC 1, WTC 2, and WTC 7. Experiments by independent scientists attempted to reproduce the sulfidation and erosion observed in the WTC steel using fire and fuels representing office building fires but those

experiments did not produce such sulfidation or erosion of steel.

166. The documented phenomenon of sulfidation and erosion of WTC steel can be accounted for by the use of thermate-based explosives and/or incendiaries. This hypothesis was first posited by retired BYU physics professor Steven Jones in the paper “Revisiting 9/11/2001 — Applying the Scientific Method,” which, in addition to being published in *The Journal of 9/11 Studies*, is archived on NIST’s website. “Thermate” is made by adding sulfur to thermite, which is a well-known incendiary consisting of a mixture of powdered aluminum and iron oxide. According to Jones, thermate “combines aluminum powder and iron or other metal oxides with sulfur. The thermate reaction proceeds rapidly and is in general faster than basic thermite in cutting through steel due to the presence of sulfur. (Elemental sulfur forms a low-melting-temperature eutectic with iron).”

167. Professor Jones notes that, in addition to explaining the observed eutectic reaction, thermate also explains the observed oxidation and sulfidation: “When you put sulfur into thermite it makes the steel melt at a much lower temperature, so instead of melting at about 1538 °C it melts at approximately 988 °C, and you get sulfidation and oxidation in the attacked steel . . .” (See Jones, 2007.)

168. NIST offers three reasons for dismissing the use of thermite/thermate: (1) the amount needed and the impracticality of applying it, (2) that the observed fires have been shown to explain WTC 7’s collapse, and (3) that testing for thermite and thermate would not necessarily have been conclusive.

169. With respect to the amount of thermite/thermate needed and the impracticality of applying it, NIST’s answer totally ignores the possible use of thermite cutter charges capable of directing molten iron from the thermite/thermate reaction toward a steel member so as to rapidly

and efficiently cut through the steel member. This technology was well developed prior to 9/11. Therefore, the first reason NIST gives for dismissing the use of thermite/thermate in FAQ #14 of the NIST WTC 7 FAQs is arbitrary, misleading, and totally insufficient as a grounds for dismissing the thermate hypothesis.

170. Second, with respect to NIST's claim that the observed fires have been demonstrated to explain WTC 7's collapse, Plaintiffs' RFC and subsequent Appeal make it clear, as alleged in the other counts of this Complaint, that the observed fires have not been demonstrated to explain the collapse. NIST's Probable Collapse Sequence both is physically impossible and fails to explain the observed structural behavior. Thus, NIST cannot use the alleged viability of its demonstrably unviable hypothesis to dismiss a competing hypothesis.

171. Third, with respect to NIST's claim that "analysis of the WTC steel for the elements in thermite/thermate would not necessarily have been conclusive," the possibility of a scientific investigation or experiment not confirming a hypothesis (or confirming it) is not a logical or legally justifiable reason for NIST not performing its statutory duty to identify the cause of WTC 7's collapse.

172. NIST claims irrationally in its Initial Decision that it does not need to test the steel at WPI and perform other experiments to determine the cause of sulfidation and erosion of certain WTC steel because it has not been shown with absolute certainty that this steel came from WTC 7.

173. While Appendix C of the FEMA Report does state that the first sample "appeared" to be from WTC 7, there is no doubt expressed throughout the rest of the appendix, nor in a prior paper co-authored by the WPI professors in the JOM journal (see Barnett et al., Dec. 2001) nor in a follow-up 2006 paper co-authored by Sisson and Biederman, that the beam

was from WTC 7. In the BBC documentary 9/11: The Third Tower referenced by Dr. Sunder in the 2008 technical briefing, Jonathan Barnett explains how his team was able to determine that the steel member was from WTC 7: “This was the size of steel that they used in the construction of Tower 7. They didn't use this particular kind of steel in Towers 1 or Towers 2. So that’s why we know its pedigree. It was a surprise to me because it was so eroded and deformed, and so we took it for analysis in the lab.”

174. Appendix D of the FEMA Report, which documents the steel data collection efforts undertaken at the WTC site and nearby salvage yards, indicates that several pieces of recovered steel were identified as being from WTC 7 (see FEMA Report, p. D-1, D-10, and D-13), and several pieces of WTC steel were shipped to NIST. The spreadsheet documenting the inspected steel includes 4 entries that are explicitly regarding steel from WTC 7 (see page 2 of 13 in the Steel Data Collection Summary of Appendix D) as well as several references to “burnt” and “fire-damaged” steel members, which may have been identified as being from WTC 7 but not noted as such in the spreadsheet. Appendix D includes two photos of columns identified as being from WTC 7.

175. There are numerous fact indications that this steel is from WTC 7. NIST’s representative on the FEMA investigation, John Gross, was present for the documentation and preservation of the severely eroded steel from WTC 7. At a technical briefing on August 26, 2008, for the release of NIST’s WTC 7 draft report, NIST’s lead investigator Dr. Shyam Sunder was asked if NIST had tested “any WTC 7 debris for explosive or incendiary chemical residues.” Dr. Sunder gave the following response: “With regard to the issue of residue, there is reference often made to a piece of steel from Building 7 that is documented in the earlier FEMA report that deals with some kind of a residue that was found, sulfur-oriented residue. ...”

176. If testing did conclude that the erosion and sulfidation of this WTC steel could only be caused by thermate, and if there is sufficient evidence to establish with reasonable certainty that this WTC steel came from WTC 7, it would then be clear that such use of thermate would be related to the intentional destruction of WTC 7 by use of explosives and/or incendiaries. There is no other plausible explanation that would account for the presence of thermate at the WTC on 9/11, particularly in quantities sufficient to cause the sulfidation and erosion observed in the WTC steel after 9/11.

177. In the alternative, if testing did conclude that the erosion and sulfidation of this WTC steel could only be caused by thermate, but there is insufficient evidence to establish with reasonable certainty that this WTC steel came from WTC 7, it would then nonetheless be clear that such use of thermate would be related to the intentional destruction of one or more of the WTC buildings that collapsed on 9/11, by use of explosives and/or incendiaries.

178. There is no other plausible explanation that would account for the presence of thermate at the WTC on 9/11, particularly in quantities sufficient to cause the sulfidation and erosion observed in the WTC steel after 9/11.

179. If thermate was used to destroy one of the WTC buildings that collapsed on 9/11 (WTC 1, WTC 2, and WTC 7), there is a reasonable probability that it was used to destroy all three of these WTC buildings, including WTC 7.

180. NIST avoids analysis of this evidence of sulfidation and erosion of WTC steel by merely assuming that the evidentiary steel at issue came from, or may have come from, another WTC building and not WTC 7.

181. NIST has no rational basis for failing to determine the cause of the erosion and sulfidation in the WTC steel.

182. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in ignoring WTC steel sulfidation and erosion evidence, NIST's WTC 7 Report is also contrary to the IQA, the OMB Guidelines and the NIST IQS standards for Quality, which include Objectivity, Utility, and Integrity, because it is inaccurate, unreliable, and biased due to the intentional omission of known material evidence that could and likely would materially affect the results of NIST's WTC 7 Report analysis regarding the cause of WTC 7's collapse thus violating the objectivity element of information quality under the OMB Guidelines and NIST IQS. NIST's omission of this evidence violates the objectivity element of information quality because NIST's WTC 7 Report and NIST's analysis is not presented in a complete manner.

183. The objectivity and integrity IQS standards are also violated because NIST has intentionally avoided evidence that would be inconsistent with its reported conclusions regarding the cause of the collapse of WTC 7.

184. NIST's WTC 7 Report violates the utility element of information quality because care was not taken to make sufficient background and detail available regarding its conclusions as to the cause of the collapse of WTC 7, specifically a description and analysis of this evidence of WTC steel that was subject to sulfidation and erosion.

185. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in ignoring WTC steel sulfidation and erosion evidence, NIST's WTC 7 Report is also contrary to the NIST IQS standards for Quality of "influential" information, which standards include Transparency and Reproducibility, because it is based on the intentional omission of known material evidence that could and likely

would materially affect the results of NIST's WTC 7 Report analysis regarding the cause of WTC 7's collapse.

186. Greater transparency by NIST as to what this steel sulfidation and erosion evidence could indicate regarding the cause of the collapse of WTC 7 would have enhanced the usefulness of the NIST WTC 7 Report and related information that was disseminated.

187. If independent investigators, scientists, researchers, or another government agency attempted to reproduce NIST's WTC 7 study results, with the WTC steel sulfidation and erosion evidence omitted and ignored as NIST did, then they would not know that this omitted evidence strongly evinces the use of explosives and incendiaries to destroy WTC 7, but had that evidence been analyzed and the results disclosed by NIST, the independent researchers would likely reach a significantly different conclusion about the cause of the collapse of WTC 7 than NIST did, because the steel sulfidation and erosion evidence would support the conclusion that use of explosives and incendiaries (thermate or nano-thermate) caused WTC 7 to collapse.

188. For all the reasons stated herein, this Court should issue an order declaring NIST to have acted irrationally, and therefore arbitrarily and capriciously, in its denial of Plaintiffs' RFC and subsequent appeal, and issue a mandatory injunction requiring NIST to include in its WTC 7 Report an analysis of WTC steel samples showing evidence of sulfidation and erosion, and requiring NIST to conduct experiments to attempt to reproduce the severe erosion observed in the WTC 7 steel. This injunction should also, pending the results of its new analysis, require NIST to revise the NIST WTC 7 Report to reflect that the only plausible cause of such sulfidation and erosion of WTC steel is the use of thermate and require NIST to discard its Probable Collapse Sequence and develop a new Probable Collapse Sequence for WTC 7 that is

physically possible and reflects the intentional use of such incendiary and/or explosive material to cause WTC 7 to collapse.

COUNT IV: Defendant Agency NIST Acted Arbitrarily and Capriciously in Denying Plaintiffs' IQA Request for Correction, and Subsequent Administrative Appeal, in Omitting and Failing to Analyze Key Available Evidence of Eyewitness Reports of Explosions Inside WTC 7 on 9/11, Evidence that Is Inconsistent with NIST's WTC 7 Report Conclusion of a Fire Driven Collapse, and which Supports the Alternative Explanation of Use of Explosives and Incendiary Materials

189. All of the foregoing and subsequent paragraphs are incorporated herein by reference.

190. This claim is brought pursuant to the Administrative Procedures Act (APA), 5 U.S.C. §§ 702, 706.

191. According to NIST, "Considerable effort was expended to compile evidence and to determine whether intentionally set explosives might have caused the collapse of WTC 7." (See NCSTAR 1A, p. 26.) This statement is inaccurate and misleading. NIST's analysis of "Hypothetical Blast Scenarios," described in Appendix D of NCSTAR 1-9, consisted of determining the lowest mass of explosive needed to sever a critical structural member (Column 79 was chosen) and performing blast modeling to determine the amount of window breakage and noise that would result. Working with contractors from Loizeaux Group International and Applied Research Associates, NIST determined the lowest mass of explosive needed to sever Column 79 was 4 kg (9 lb) of RDX explosives in linear shaped charges, and that detonating this amount of RDX explosives would result in a sound level of approximately 130 to 140 decibels 1 km away for locations where sound propagation was unobstructed. However, NIST and its contractors assumed no attempts at noise abatement and dismissed the possibility of much quieter thermite-based devices being used, despite the fact that steel recovered from WTC 7

exhibited severe erosion indicative of a thermate reaction.

192. Using the strawman premise that a noise of 130 to 140 decibels would need to have been emitted from WTC 7 if the building had been destroyed with explosives, NIST ignored and distorted eyewitness reports and audio recordings indicative of explosions occurring at the onset of and during WTC 7's collapse.

193. NIST's claim that "there were no witness reports of such a loud noise, nor was such a noise heard on the audio tracks of video recordings of the WTC 7 collapse" fails to comply with the OMB Guidelines and NIST IQS because it lacks objectivity. NIST's claim is inaccurate, unreliable, and biased because it ignores and distorts a number of eyewitness reports and audio recordings indicative of explosions, in part based on the strawman premise that a noise of 130 to 140 decibels would need to have been emitted from WTC 7 if the building had been destroyed with explosives.

194. There are a number of eyewitness reports and audio recordings of noises that indicate the occurrence of explosions at the onset of and during WTC 7's collapse. Far more important than whether the observed noises reached NIST's strawman decibel level (based on the flawed premise that RDX was used to sever a column) is whether these noises could have been caused by structural failures and/or the impact of falling debris. Careful review of the eyewitness reports and audio recordings supports the conclusion that the noises could not have been caused by structural failures or the impact of falling debris, leaving explosions as the only remaining explanation.

195. The NIST WTC 7 Report distorts eyewitness reports of an explosion occurring inside WTC 7 on the morning of 9/11. These eyewitness reports were first given on television on September 11, 2001, by Michael Hess, the New York City corporation counsel, and Barry

Jennings, deputy director of the Emergency Services Department for the New York City Housing Authority, after the two men had been trapped together inside WTC 7 for at least 90 minutes. Both men were also interviewed by NIST in the spring of 2004. Jennings then gave two more videotaped interviews in subsequent years, before his untimely death in 2008, and Hess gave one more videotaped interview.

196. NIST's account of Hess and Jennings' experience in WTC 7 is striking for the fact that it omits the most notable aspect of what Jennings, and initially Hess, described witnessing as they reached the 6th floor: a big explosion occurring inside the building, which, according to Jennings, caused the landing they were standing on to give way.

197. Although Hess later changed his account to the narrative put forward by NIST — according to which the event that Hess and Jennings experienced was actually debris from the collapse of WTC 1 impacting WTC 7 at 10:28 AM — Jennings continued to maintain that he had witnessed an explosion. In any case, assuming that Jennings provided the same account to NIST that he did in every other interview he gave, the NIST WTC 7 Report ignores and distorts the vast majority of his account.

198. Without even mentioning Jennings' interpretation of what he witnessed, the NIST WTC 7 Report claims that the event Jennings witnessed on the 6th floor landing that he perceived as an explosion was actually caused by debris from the collapse of WTC 1 impacting WTC 7 at 10:28 AM. However, NIST's account is untenable for the simple reason that Hess and Jennings must have reached the 6th floor well before 10:28 AM.

199. As Jennings noted in his 2007 interview with Dylan Avery, he recalls reaching the 6th floor before the collapse of WTC 2 at 9:59 AM. His account is based on his recollection of being called to WTC 7 shortly after the first airplane strike at 8:46 AM, reaching the 23rd the

floor around the time of the second airplane strike at 9:03 AM, and leaving the 23rd floor with Hess after finding the emergency operations center (EOC) already evacuated. Also, Jennings distinctly remembers, after busting out the 8th floor window and calling for help, watching firefighters come to their aid and then run away twice — the first time following the collapse of WTC 2 at 9:59 AM and the second time following the collapse of WTC 1 at 10:28 AM.

200. Contrary to Jennings' account, the NIST WTC 7 Report states that Hess and Jennings began to leave the 23rd floor at 9:59 AM. But even if it is assumed that Hess and Jennings began to leave the 23rd floor at 9:59 AM, it is improbable that it would take them 29 minutes to descend 17 floors, which would mean an average of 1 minute and 42 seconds per floor. As noted above, Jennings said in his interview with the BBC, "I wanted to get out of that building in a hurry. So I started, instead of taking one step at a time, I'm jumping landings."

201. Given the speed at which Hess and Jennings were probably descending the staircase, even a conservative estimate of 20 seconds per floor means that it would have taken them about 6 minutes to reach the 6th floor. Add 1 minute for the amount of time it might have taken them to find the stairwell starting at 9:59 AM (although NIST's account suggests no delay in finding the stairwell), and they would still reach the 6th floor by 10:06 AM, which is 22 minutes before the collapse of WTC 1.

202. There is no factual or rational basis for NIST's conclusion that debris impacting the south face of WTC 7 could cause a landing in a stairwell on the northern side of the building's core to give way or at least make the stairwell impassable. Apparently recognizing this issue, the NIST WTC 7 Report fails to disclose Mr. Jennings' mention of the landing giving way and structural damage to the stairwell. Instead, the NIST WTC 7 Report implies that Hess and Jennings retreated to the 8th floor because the staircase "filled with smoke and debris." The

NIST WTC 7 Report does not explain how debris impacting the south face of WTC 7 could cause a stairwell on the northern side of the building's core to fill with debris. Nor does it attempt to account for the damage described by Jennings.

203. As a result, NIST's claim that the event witnessed by Hess and Jennings was caused by the collapse of WTC 1 at 10:28 AM fails to comply with the OMB Guidelines and NIST IQS because it lacks objectivity. This NIST claim is inaccurate, unreliable, and biased because it distorts the initial reports of Hess and Jennings, as well as the account that Jennings continued to stand by in subsequent interviews.

204. NIST's WTC 7 Report is inaccurate, unreliable, and biased because it relies on the untenable assertion that it took Hess and Jennings approximately 29 minutes to descend 17 stories despite the fact that they were rushing to evacuate the building ("jumping landings").

205. NIST in its Initial Decision gave no rational basis justifying its untenable assertion that it took Hess and Jennings approximately 29 minutes to descend 17 stories, merely stating: "NIST disagrees with the assertion that it distorted eyewitness reports of an explosion occurring inside WTC 7. The rescue events documented in NCSTAR 1-9, Section 6.5.2, are based on eight independent interviews."

206. NIST's WTC 7 Report is inaccurate, unreliable, and biased because it does not explain how debris impacting the south face of WTC 7 could cause a stairwell on the northern side of the building's core to fill with debris, nor does it attempt to account for the damage described by Jennings.

207. NIST's WTC 7 Report is inaccurate, unreliable, and biased because it ignores other video and eyewitness evidence that is consistent with Jennings' account. NIST ignored media reports and first responder reports of explosions occurring on 9/11 at WTC 7. Numerous

examples of such eyewitness reports of explosions are presented and documented in Plaintiffs' RFC submitted to NIST.

208. There is no rational basis for NIST discounting the eyewitness accounts that were submitted and no rational basis for NIST not interviewing witness Gigi Stone Wood and other eyewitnesses to explosions identified by Plaintiffs in their submissions to NIST.

209. NIST's WTC 7 Report violates the utility element of information quality because care was not taken to make sufficient background and detail available regarding NIST's assertions in this Report, even though greater transparency would have enhanced the usefulness of the information disseminated. Given the obvious importance of Hess' and Jennings' interviews, NIST should have published all, or at least relevant portions of, these interviews.

210. NIST's claim violates the transparency standard imposed upon influential information because NIST did not practice a degree of transparency sufficient to facilitate reproducibility. NIST's WTC 7 Report conclusions, which NIST asserts are based on its interviews with Hess and Jennings, cannot be validated or invalidated because the public has not been given access to NIST's interviews with Hess and Jennings.

211. If independent investigators, scientists, researchers, or another government agency attempted to reproduce NIST's WTC 7 study results with only the information provided in the NIST WTC 7 Report, they would not know of most of the eyewitness reports, and their independent modelling would proceed in ignorance of all these eyewitness reports of explosions at the WTC, including at least one *in* WTC 7, on 9/11. Absent NIST's omission of these reports of explosions from credible witnesses including firefighters and police, the independent researchers' attempts to reproduce NIST's findings as to the cause of the collapse of WTC 7 would result in significantly different conclusions than NIST's because the eyewitness reports of

explosions that would be available in this scenario not only would directly evince use of explosives but would cause closer scrutiny by the researchers of various scientific evidence indicating the use of explosives, such as the sulfidation and erosion of WTC steel and the WTC 7 collapse period of free fall.

212. For all the reasons stated herein, this Court should issue an order declaring NIST to have acted irrationally, and therefore arbitrarily and capriciously, in its denial of Plaintiffs' RFC and subsequent appeal, and issue a mandatory injunction requiring NIST to correct its WTC 7 Report to include a full and complete analysis of the available eyewitness reports of explosions at the WTC generally and in WTC 7 specifically.

213. The Court's injunction should require NIST, pending the results of NIST's new analysis, to revise the NIST WTC 7 Report to reflect that there are eyewitness reports and audio recordings indicative of explosions at the onset of and during the collapse of WTC 7.

214. The Court's injunction should require NIST to revise Section 6.5.2 of NCSTAR 1-9 to faithfully reflect the account of Barry Jennings, according to which there was a big explosion inside WTC 7 before 10:28 AM that caused the 6th floor landing he and Michael Hess were standing on to give way.

215. The Court's injunction should require NIST, pending the results of NIST's new analysis, to discard its Probable Collapse Sequence and develop a new Probable Collapse Sequence that is consistent with the occurrence of an explosion at the onset of the east penthouse collapse as well as explosions later in the collapse sequence and explosions earlier in the day. This could be accomplished by simulating the failure of Columns 79, 80, and 81 high in the building, followed by the near-simultaneous failure of all columns lower in the building over 8 stories.

216. Because NIST's assertion that the testimony of Hess and Jennings is "not directly related to the building failure" defies reason, these interviews should not be considered exempt from disclosure and should be ordered to be released to the public by NIST in order to satisfy the IQA, OMB, and NIST information quality Transparency standard.

COUNT V: Defendant Agency NIST Acted Arbitrarily and Capriciously in Denying Plaintiffs' IQA Request for Correction, and Subsequent Administrative Appeal, in Mischaracterizing the Initiation of the WTC 7 Collapse, in Adopting in Its WTC 7 Report a Computer Modelling of the WTC 7 Collapse the Results of which Are Facially Contrary to Or Omit Observable and Measurable Features of the Videotaped Actual WTC 7 Collapse, Including a Period of Free Fall, and in Keeping Its Computer Modelling Secret

217. All of the foregoing and subsequent paragraphs are incorporated herein by reference.

218. This claim is brought pursuant to the Administrative Procedures Act (APA), 5 U.S.C. §§ 702, 706.

219. NIST mischaracterized the initiation of WTC 7's collapse.

220. NIST's computer modelling failed to reproduce the observable and video recorded features of the collapse of WTC7 as the collapse progressed.

221. In the section of the NIST WTC 7 Report titled "Accuracy of the Probable Collapse Sequence," NIST states (emphasis added):

Given the complexity of the modeled behavior, the global collapse analyses matched the observed behavior **reasonably well**. The close similarity of the timing and the nature of the events **up to the initiation of global collapse** is strong confirmation of the extent and nature of the structural failures in the interior of the building and the accuracy of the four-step simulation process. The global collapse analysis confirmed the leading collapse hypothesis, which was based on the available evidence.

222. Contrary to the above assertions, NIST's global collapse analyses do not match

the observed behavior reasonably well and do not confirm NIST's leading collapse hypothesis. NIST's global collapse analyses fail to match most of the observed behavior — predicting fundamentally different structural behavior from what was observed — and therefore they actually disconfirm NIST's leading collapse hypothesis.

223. NIST's modelling fails to replicate the lack of deformation, vertical descent, and free fall nature of the WTC 7 collapse.

224. NIST's global collapse analysis predicts significant deformation of the upper exterior walls both before and after the initiation of global collapse. Yet, per NIST's own observations, there is no observed deformation or displacement of the upper exterior corners as late as 7.5 seconds after the initiation of the east penthouse collapse (which is .6 seconds after NIST claims that global collapse initiated). The figures in NIST's WTC 7 Report (i.e. from NCSTAR 1-9) which compare the position of WTC 7's exterior at 5.0 seconds and 7.5 seconds after the initiation of the east penthouse collapse, demonstrate the total absence of deformation or displacement in the upper exterior corners, with NIST actually commenting: "Interestingly, little movement of the northeast and northwest corners of the building is indicated." (NCSTAR 1-9, p. 274.)

225. NIST claims in NIST WTC 7 FAQ #35 that "Only in the later stages of the animation, after the initiation of global collapse, do the upper exterior wall deformations from the NIST analysis differ from the video images." That NIST claim is simply false. The upper exterior wall deformations appear in the animation prior to the initiation of collapse.

226. The second way that NIST's global collapse analysis fails to match most of the observed behavior is in the direction of the collapse. The northwest edge of WTC 7 descended

nearly symmetrically during the first 4 seconds of the global collapse. NIST stated in its WTC 7 Report:

In this sequence of images, both the northeast and northwest edges began to tilt toward the north shortly after the building began to move downward. The northeast edge tilt continued to increase until the edge was obscured by dust and smoke. The northwest edge initially tilted in a similar manner, but then settled back to its original line and fell nearly vertically (or directly toward or away from the camera).

In contrast, NIST's global collapse analysis predicts both the northeast and northwest edges of WTC 7 tipping to the south — not to the north — in a manner that appears they would not have tilted back to the north and, in the case of the northwest edge, that it would not have settled back to its original line.

227. The third way that NIST's global collapse analysis fails to match most of the observed behavior is by its failure to predict the observed rate of downward motion from the initiation of global collapse through to the end of free fall. This downward motion as video recorded during the actual collapse is characterized by a sudden transition from stasis to free fall followed by a period of free fall lasting approximately 2.5 seconds, during which WTC 7 fell downward approximately 8 stories without encountering any resistance (at the acceleration of gravity).

228. The NIST WTC 7 Report mischaracterizes the sudden transition to free fall, instead alleging an initial stage of 1.75 seconds where “the descent was slow and the acceleration was less than that of gravity.” NIST's measurements of the downward motion are based on the video that NIST labeled as Camera 3. NIST's method of measuring the building's downward motion by tracking the vertical position of a single point “near the center of the roofline” oversimplifies and misrepresents the actual downward motion of the entire roofline.

229. Careful measurement by physicist and researcher David Chandler using the video

that NIST labeled as Camera 2, which has a line of sight approximately level with the roofline, shows that a point near the center of the roofline did indeed begin to move downward at about 6.9 seconds after the east penthouse collapse initiation, but that the northeast and northwest corners of the roofline did not begin to move downward until about 8.2 seconds after the east penthouse collapse initiation.

230. Chandler's measurement is corroborated by Figure 5-201 of NCSTAR 1-9, which shows a slight displacement at the middle of the roofline and zero displacement of the upper exterior corners 7.5 seconds after the east penthouse collapse initiation. Then, at 8.2 seconds, within a tenth of a second, all three points along the roofline suddenly began descending uniformly in free fall. While the northeast corner became difficult to track partway into the descent because of smoke, the measurements indicate that the middle of the roofline and the northwest corner stayed in free fall for approximately 2.5 seconds.

231. Thus, the downward motion of WTC 7's north face roofline at the onset of global collapse is more accurately characterized as a sudden transition to free fall.

232. NIST's mischaracterization of the sudden transition to free fall is significant not only because it misrepresents the nature of the observed behavior so as to make it seem more consistent with a natural, progressive collapse, but also because it helped NIST claim that its global collapse analysis "matched the observed behavior reasonably well." The NIST WTC 7 Report makes this claim when it asserts: "The three stages of collapse progression described above are consistent with the results of the global collapse analyses discussed in Chapter 12 of NIST NCSTAR 1-9."

233. In addition to failing to predict the sudden transition to free fall, NIST's global collapse analysis fails to predict the observed period of free fall itself. Because NIST terminates

the animation of the global collapse analysis 8.1 seconds after the initiation of the east penthouse collapse, the model effectively cuts off just as it might have been expected to show the observed period of free fall.

234. The NIST WTC 7 Report states the following about the global collapse analysis in a subsection titled “Aspects following the Global Collapse Initiation” (see NCSTAR 1A, p. 44):

Once simulation of the global collapse of WTC 7 was underway, there was a great increase in the uncertainty in the progression of the collapse sequence, due to the random nature of the interaction, break up, disintegration, and falling debris. The uncertainties deriving from these random processes increasingly influenced the deterministic physics-based collapse process, and the details of the progression of the horizontal failure and final global collapse were increasingly less precise. (Emphasis added.)

But because free fall means that there is no interaction between the falling top section of the building and the structure below it, it should have been easier for NIST’s global collapse analysis to simulate the observed period of free fall, not more difficult.

235. The evidence supports the conclusion that NIST terminated its global collapse analysis 8.1 seconds after the east penthouse collapse initiation because the model had failed to match most of the observed behavior up until that point, and the model’s ability to match the observed behavior only worsened after that point, as noted by NIST. In NIST’s model, significant deformation and tipping were underway and likely to increase, and there was no indication in NIST’s model that the building was about to enter vertical free fall (but it was, and was recorded on videotape doing so).

236. NIST’s claim that “the three stages of collapse progression . . . are consistent with the results of the global collapse analyses discussed in Chapter 12 of NIST NCSTAR 1-9” is unambiguously false. The second stage, which NIST belatedly admitted based on teacher and

researcher David Chandler's work, to be 2.25 seconds of free fall, is not shown in NIST's global collapse analysis. Furthermore, NIST's admission that there was increasing uncertainty and less precision in NIST's model following global collapse initiation strongly supports the conclusion that NIST's model would not have shown the observed period of free fall if it had been allowed to continue.

237. Because NIST's global collapse analysis fails to match most of the observed behavior — predicting fundamentally different structural behavior from what was observed — NIST should have interpreted its global collapse analysis as disconfirming, not confirming, its leading collapse hypothesis.

238. One fundamental flaw in NIST's claim that its global collapse analysis “matched the observed behavior reasonably well” and therefore “confirmed the leading collapse hypothesis” is that all of the observables NIST relied on for this conclusion are also consistent with the hypothesis of controlled demolition, or more consistent. Further, the hypothesis of controlled demolition readily explains the other fundamental aspects of WTC 7's structural behavior that NIST's global collapse analysis fails to predict: lack of deformation, vertical descent, and free fall.

239. NIST asserts in its June 30, 2021, Response to the Requestors' IQA Appeal that both NIST's initial denial of the RFC and NIST's rejection of the Requestors' later appeal are justified because there are “differences” in NIST's modelling, assumptions, and evidence collection approaches compared to those of AE and the other Requestors, and therefore, NIST asserts, different results are to be expected.

240. Plaintiff AE's UAF modelling did obtain materially different results than NIST's WTC 7 Report, and the UAF study did reach materially different conclusions than NIST

regarding what was and what was not the cause of the collapse of WTC 7.

241. One conclusion of the UAF study is that only an analysis and model that provides for the simultaneous removal/failure of multiple building columns, as was done in Professor Hulseley's UAF study modelling, can predict and explain the WTC 7 collapse behavior actually observed and filmed.

242. The UAF team, under the direction of Professor Hulseley, after simulating other scenarios, simulated the simultaneous failure of all core columns over 8 stories followed 1.3 seconds later by the simultaneous failure of all exterior columns over 8 stories. The UAF team found that "the simultaneous failure of all core columns followed by the simultaneous failure of all exterior columns produces almost exactly the behavior observed in videos of the collapse."

243. The UAF team also found that the simultaneous failure of all core columns over 8 stories followed 1.3 seconds later by the simultaneous failure of all exterior columns over 8 stories resulted in a downward velocity and acceleration that matched almost exactly with the observed 2.5 seconds of free fall.

244. This simultaneous removal/failure of multiple columns in a building is the essence of a controlled demolition.

245. Unlike Professor Hulseley in the University of Alaska study, NIST fails to evaluate WTC 7 collapse scenarios involving the simultaneous removal/failure of multiple building columns as in a controlled demolition.

246. NIST arbitrarily included only certain "blast" scenarios, scenarios that could not have predicted/matched the observed behavior of WTC 7 during its collapse, and arbitrarily excluded other scenarios involving use of high-tech incendiaries and explosives that would predict — and do match — the actual behavior of WTC 7 as it collapsed.

247. NIST failed to evaluate WTC 7 collapse scenarios involving use of high-tech explosives/incendiaries such as thermate and nano-thermite to achieve a simultaneous removal of multiple columns.

248. NIST's WTC 7 Report did not explain how WTC 7 experienced, and was video recorded to have experienced, a symmetric straight-down collapse into its own footprint, despite incurring asymmetric damage due to impact from debris falling from the collapsing WTC1.

249. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in adopting computer modelling results that do not account for features of the actual WTC 7 collapse, NIST's WTC 7 Report is also contrary to the IQA, the OMB Guidelines and the NIST IQS standards for Quality, which include Objectivity, Utility, and Integrity, because it fails to predict or explain the observable video recorded features of the WTC 7 collapse, and any modelling that does predict and explain these observed features of the collapse would lead to materially different results for a predicted WTC 7 collapse sequence and cause of WTC 7's collapse.

250. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in adopting computer modelling results that do not account for features of the actual WTC 7 collapse, NIST's WTC 7 Report is also contrary to the NIST IQS standards for Quality of "influential" information, which standards include Transparency and Reproducibility, because it is based on a "black box" computer modelling that has been kept secret from the public and independent investigators who would like to see if NIST's modelling can be replicated.

251. NIST's secret "black box" computer model is suspect on its (hidden) face because it fails to predict or explain the observable video recorded features of the WTC 7 collapse.

252. NIST's claim that its global collapse analysis matched the observed behavior reasonably well violates the reproducibility standard imposed upon influential information because — to the extent that independent analysis of the original data using identical methods could be performed — contradictory analytic results were generated. The UAF analysis found that, contrary to NIST's WTC 7 Report, simulating the failure of Columns 79, 80, and 81 from the Floor 6 to Floor 13 did not cause the east penthouse to collapse into the building.

253. NIST's termination of its global collapse analysis 8.1 seconds after the east penthouse collapse initiation violates the utility element of information quality because care was not taken to make sufficient background and detail available regarding its claim. Similarly, NIST's termination of its global collapse analysis 8.1 seconds after the east penthouse collapse initiation also violates the transparency standard imposed upon influential information because NIST did not practice a degree of transparency sufficient to facilitate reproducibility. Specifically, even despite the increase in uncertainty and decrease in precision — or precisely because of it — NIST should have terminated its global collapse analysis later in order to increase the usefulness of the information and to better allow members of the public to evaluate whether the global collapse analysis matched the observed behavior well.

254. NIST's claim that its global collapse analysis confirmed its leading collapse hypothesis violates the NIST IQS because it is inaccurate, unreliable, and apparently biased because it matched only some of the observables, while the hypothesis of controlled demolition also explains those observables in addition to explaining the fundamental aspects of WTC 7's structural behavior that NIST's global collapse analysis failed to predict (lack of deformation, vertical descent, and free fall).

255. NIST's claim that its global collapse analysis matched the observed behavior reasonably well is inaccurate, unreliable, and apparently biased because NIST's global collapse analysis fails to match most of the observed behavior, actually predicting fundamentally different structural behavior from what was observed, thus violating the objectivity element of information quality under the OMB Guidelines and NIST IQS.

256. NIST's claim that there was 1.75-second period of slow descent prior to free fall, which helped NIST claim that its global collapse analysis matched the observed behavior reasonably well, is inaccurate, unreliable, and apparently biased because careful measurement shows a sudden transition to free fall.

257. NIST's claim that its global collapse analysis confirmed its leading collapse hypothesis violates the reproducibility standard imposed upon influential information because the UAF analysis found that simulating what is effectively a controlled demolition scenario matches the observed behavior far better than NIST's global collapse analysis does.

258. If independent investigators, scientists, researchers, or another government agency attempted to reproduce NIST's WTC 7 study results with the information provided in the NIST WTC 7 Report, they would not have access to the computer modelling code and inputs used by NIST because NIST continues to keep that modelling information secret, i.e. it remains a "black box." Absent access to the modelling code and inputs in the "black box", independent researchers attempting to replicate NIST's modelling would be driving blind and would have little chance of replicating NIST's modelling results and its WTC 7 Probable Collapse Sequence or fire-driven collapse conclusion.

259. If independent scientists cannot see the details of NIST's analysis and modelling, including the input and assumptions used therein, because all of these are being kept secret by NIST, there is a gross lack of transparency.

260. There can be no independent replication, no reproducibility, of NIST's analysis and findings based on NIST's "black box" approach of keeping the details of its WTC 7 collapse computer modelling secret.

261. NIST's refusal to simply run a valid computer model for WTC 7's collapse that adjusts inputs/modelling assumptions (such as which columns failed when) until it at least proximately simulates the observed and videotaped features of WTC 7's actual collapse, a collapse that visually closely resembles a controlled demolition using explosives, and to compare the results to the observable video recorded features of the WTC 7 collapse, is irrational and arbitrary and capricious under the circumstances.

262. For all the reasons stated herein, this Court should issue an order declaring NIST to have acted irrationally, and therefore arbitrarily and capriciously, in its denial of Plaintiffs' RFC and subsequent appeal, and issue a mandatory injunction requiring NIST to correct its WTC 7 Report to include valid and transparent computer modelling of the global collapse of WTC 7 that does not involve walk-off of Girder A2001 at its Column 79 support, does not involve a cascade of floor failures (see Count VII below), and actually replicates the observable video recorded features of the WTC 7 collapse.

263. This Court's injunction should also require NIST to make its computer modelling code and inputs available to the public and independent researchers.

264. This Court's injunction should also require NIST to revise the NIST WTC 7 Report to reflect that, based on measurement of video footage of the movement of 3 points along the WTC 7 roofline, the north face roofline of WTC 7 underwent a sudden transition to free fall.

265. This injunction should also require NIST, pending the results of its new analysis, to revise the NIST WTC 7 report to discard its Probable Collapse Sequence and develop a new Probable Collapse Sequence for WTC 7 that matches and explains the observable video recorded features of the WTC 7 collapse.

COUNT VI: Defendant Agency NIST Acted Arbitrarily and Capriciously in Denying Plaintiffs' IQA Request for Correction and Subsequent Administrative Appeal, in Adopting Conclusions in NIST's WTC 7 Report Regarding 9/11 WTC Seismic Evidence that Are Unsupported by the Available Evidence and Contrary to the Laws of Physics

266. All of the foregoing and subsequent paragraphs are incorporated herein by reference.

267. This claim is brought pursuant to the Administrative Procedures Act (APA), 5 U.S.C. §§ 702, 706.

268. Plaintiffs submitted with their RFC the report of an expert in acoustic waves explaining why, using established scientific principles, the nature of the seismic waves generated on 9/11 from the WTC, their velocities, frequencies, and magnitudes, support the conclusion that there were explosives detonated in WTC 7.

269. The seismology expert whose report was submitted to NIST by Plaintiffs is Dr. André Rousseau. Dr. Rousseau has a doctorate degree in geophysics and geology and is a former researcher in geophysics and geology at the National Center for Scientific Research (CNRS) of France for 35 years, a specialist in acoustic waves, who has published 50 papers on the relationship between the characteristics of progressive mechanical waves and geology.

270. Two seismic events with Richter magnitudes of .6 occurred at approximately 5:20:42 PM and 5:20:50 PM on September 11, 2001, which is the approximate time of WTC 7's collapse. The seismic signals emitted from these events were recorded on seismometers at the Lamont-Doherty Earth Observatory of Columbia University (LDEO) in Palisades, New York, about 34 kilometers away from Lower Manhattan. Appendix B of NCSTAR 1-9 documents the occurrence of these seismic events and analyzes their possible source.

271. The NIST WTC 7 Report attributes the first seismic signal at approximately 5:20:42 PM to the alleged cascade of floor failures in its Probable Collapse Sequence, which allegedly led to the buckling of Column 79 and the collapse of the east penthouse. It then attributes the second seismic signal at approximately 5:20:50 to the initiation of global collapse. Although the NIST WTC 7 Report does not explicitly claim that the second signal corresponded to the initiation of global collapse, it is implied by the second signal being generated approximately 7 to 8 seconds after the first seismic signal (the initiation of the east penthouse collapse and the initiation of global collapse were approximately 7 to 8 seconds apart).

272. A fundamental flaw in NIST's interpretation of the seismogram data, i.e. that debris impact caused the observed seismic signals, is that debris impact, whether inside the building or directly against the ground, simply does not produce a force sufficient to create seismic waves that will travel further than several hundred meters. This fact is attested to by Plaintiffs' expert Dr. André Rousseau.

273. NIST's claim that the first seismic signal was generated by "interior debris falling onto the lower floors of WTC 7" is especially implausible. Dr. Rousseau concluded, "even if there were tremendous percussion caused by the impact of several floors [Floor 14 to Floor 6] in the northeastern corner of the building falling onto a lower, stronger floor [Floor 5], any seismic

wave created in the adjoining steel columns would hit the ground only in the form of seismic noise. Further, because the passage from metal to rock is a refraction that absorbs energy, there would be insufficient energy left to propagate in the ground.”

274. Dr. Rousseau concluded, “[t]he part of the collapse that would be most expected to generate seismic energy — the top section falling onto the lower section after free-falling for 8 stories, and then directly impacting the ground — did not generate a unique seismic signal.” In other words, NIST’s claim implies, irrationally, that the collapse of several floor sections onto one floor in one corner of the building somehow generated a stronger seismic signal than the impact load caused by the entire top section free-falling for 105 feet.

275. Dr. Rousseau concluded, “[t]he hypothesis of controlled demolition involving two subaerial explosions is perfectly consistent with the recorded seismic activity.” Dr. Rousseau offers four key scientific observations to support his conclusion. First, “[e]xplosions caused by demolition charges can create seismic waves that will travel further than several hundred meters.” Second, “explosions caused by demolition charges create seismic waves with frequencies around 1 Hz.” Third, “[t]he bell-like form in the LDEO seismogram is consistent with an impulsive source of energy such as that generated by an explosion.” Fourth, “[t]he occurrence of two seismic signals approximately 7 seconds apart, occurring just before the initiation of the east penthouse collapse initiation and just before the initiation of global collapse, is readily explained by the detonation of demolition charges.”

276. NIST’s claim that the two seismic signals were created by a cascade of floor failures and the initiation of global collapse, respectively, fails to comply with the OMB Guidelines and NIST IQS because it lacks objectivity. NIST’s claim is inaccurate, unreliable, and biased because it contradicts the straightforward and indisputable interpretation of the

seismogram data indicating that the seismic signals were created by explosions.

277. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in its treatment of the WTC seismic evidence, NIST's WTC 7 Report is also contrary to the IQA, the OMB Guidelines and the NIST IQS standards for Quality, which include Objectivity, Utility, and Integrity, because it is inaccurate, unreliable, and biased due to the omission and mischaracterization of the seismic evidence related to WTC 7's collapse.

278. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in its treatment of the WTC seismic evidence, NIST's WTC 7 Report is also contrary to the NIST IQS standards for Quality of "influential" information, which standards include Transparency and Reproducibility, because it is not transparent regarding NIST's analysis of the WTC seismic evidence, and its conclusions regarding the seismic evidence are contrary to established scientific principles.

279. For all the reasons stated herein, this Court should issue an order declaring NIST to have acted irrationally, and therefore arbitrarily and capriciously, in its denial of Plaintiffs' RFC and subsequent appeal, and issue a mandatory injunction requiring NIST to correct its WTC 7 Report and include a scientifically valid and transparent analysis of the seismic evidence, and modify its WTC 7 Probable Collapse Sequence consistent with that corrected analysis of the seismic evidence, including accounting for the occurrence of a subaerial explosion at the onset of the east penthouse collapse and a subaerial explosion at the onset of global collapse.

280. NIST should be required to revise the NIST WTC 7 Report to reflect that subaerial explosions as opposed to the NIST alleged cascade of floor failures and the initiation of

global collapse, were the actual source of the seismic signals generated during the collapse of WTC 7.

COUNT VII: Defendant Agency NIST Acted Arbitrarily and Capriciously in Denying Plaintiffs' IQA Request for Correction and Subsequent Administrative Appeal, in Concluding in NIST's WTC 7 Report that a Cascade of Floor Failures Would Occur, a Conclusion Unsupported by the Available Evidence and Contrary to the Laws of Physics

281. All of the foregoing and subsequent paragraphs are incorporated herein by reference.

282. This claim is brought pursuant to the Administrative Procedures Act (APA), 5 U.S.C. §§ 702, 706.

283. NIST in its WTC 7 Report asserts a scenario of a cascade of floor failures in its WTC 7 Probable Collapse Sequence, but never offers an explanation of how such a cascade of floor failures would be physically possible.

284. The NIST WTC 7 Report claims that after Girder A2001 walked off its support at Column 79, “[t]he unsupported girder and other local fire-induced damage caused Floor 13 to collapse, beginning a cascade of floor failures down to the 5th floor.” (See NCSTAR 1A, p. 22.) Aside from this brief summary, the NIST WTC 7 Report provides no other description, analysis, or calculations showing how the collapse of Floor 13 began a cascade of floor failures down to Floor 5. NIST’s Initial Decision and Final Decision also fail to provide any description, analysis, or calculations showing how the collapse of Floor 13 began a cascade of floor failures down to Floor 5.

285. The NIST WTC 7 Report neglects to specify which girder connections on Floor 12 were broken by the collapse of Floor 13. One might assume that the girder directly beneath Floor 13’s Girder A2001, Floor 12’s Girder A2001, would be impacted and have its connections

broken. But that assumption is contradicted by NIST's claim that "[t]here was still some lateral support in the north direction at Floors 8 to 12 and Floor 14, as the erection bolts in the seated connections had all failed at these girder ends, but the girders had not walked off the bearing seats." (See NCSTAR 1-9, p. 573.) NIST's Initial Decision and Final Decision also neglected to specify which girder connections on Floor 12 were broken by the collapse of Floor 13.

286. NIST relies on its LS-DYNA original modelling as support for this cascade of floor failures conclusion but has declined to disclose the results files of its LS-DYNA analysis on the grounds that releasing this data "might jeopardize public safety."

287. The UAF study calculations demonstrate unequivocally that the impact of Floor 13 falling onto Floor 12 would be greatly insufficient to shear the girder connections of any of the girders framing into Column 79 on Floor 12.

288. The impact force of Floor 13 falling onto Floor 12 is insufficient to shear the girder connection of Girder A2015 by a factor of more than 10 and is insufficient to shear the girder connection of Girder A2002 by a factor of more than 6.

289. The fire-induced damage at 4 hours of heating in NIST's 16-story ANSYS model, which NIST cites in the Initial Decision, does not help explain how the impact load of Floor 13 falling onto Floor 12 would be sufficient to cause Floor 12 to fail (presumably by breaking the girder connection of Floor 12's Girder A2002 on the south side of Column 79). As shown in Figure 11-34 of NCSTAR 1-9, Floor 12's Girder A2002 and its connections to both Column 79 and Column 80 were undamaged. Therefore, the calculation presented above of the force required to shear the undamaged Girder A2002 connection at Column 79 applies fully.

290. Given the above stated facts, the second major step leading to the initiating local failure in NIST's Probable Collapse Sequence — the cascade of floor failures from Floor 13

down to Floor 5 — was physically impossible.

291. NIST had no valid basis for its conclusion that the impact load of Floor 13 falling onto Floor 12 would be sufficient to cause Floor 12 to fail and initiate a cascade of floor failures down to Floor 5. NIST also offered no such valid basis in its Initial Decision or Final Decision.

292. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in assuming a cascade of floor failures, NIST's WTC 7 Report is also contrary to the IQA, the OMB Guidelines and the NIST IQS standards for Quality of Objectivity, Utility, and Integrity, because it concludes that a physically impossible cascade of floor failures will occur during its WTC 7 Probable Collapse Sequence based on false assumptions and erroneous inputs into its modelling, that remain secret.

293. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in assuming a cascade of floor failures, NIST's WTC 7 Report is also contrary to the NIST IQS standards for Quality of "influential" information, which standards include Transparency and Reproducibility, due to reliance on a physically impossible cascade of floor failures occurring during its WTC 7 Probable Collapse Sequence that is supported only by a "black box" (secret calculations, secret input data, secret assumptions, and secret computer code that would specify how scientific principles would or would not be properly applied to the data and assumptions to result in calculations supporting conclusions).

294. If independent investigators, scientists, researchers, or another government agency attempted to reproduce NIST's WTC 7 study results with the limited information provided in the NIST WTC 7 Report regarding the NIST hypothesized cascade of floor failures, they would not know what false assumptions and erroneous inputs NIST used in its final 16-

story ANSYS modelling because that information continues to be kept secret by NIST. Consequently, independent researchers could not reproduce NIST's modelling or analyses and their independent modelling, if done, would have to be based on guesses as to those NIST modelling assumptions and inputs.

295. NIST's claim is inaccurate, unreliable, and apparently biased because it severely overestimates the ability of Floor 13 falling onto Floor 12 to cause Floor 12 to fail, thus violating the objectivity element of information quality under the OMB Guidelines and NIST IQS. NIST's claim also violates the objectivity element of information quality because it is not presented in a complete manner, failing to even specify which girder connections on Floor 12 were broken by the collapse of Floor 13.

296. NIST's claim violates the utility element of information quality because care was not taken to make sufficient background and detail available regarding its claim, even though greater transparency would have enhanced the usefulness of the information disseminated. NIST merely provides a brief summary of its analysis results and has declined to disclose the results files of its LS-DYNA analysis.

297. NIST's claim violates the transparency standard imposed upon influential information because NIST did not practice a degree of transparency sufficient to facilitate reproducibility due to keeping critical modelling information secret.

298. NIST's claim violates the reproducibility standard imposed upon influential information because — to the extent that independent analysis of the original data could be performed notwithstanding NIST's secrecy — contradictory analytic results were generated by the UAF study.

299. For all the reasons stated herein, this Court should issue an order declaring NIST to have acted irrationally, and therefore arbitrarily and capriciously, in its denial of Plaintiffs' RFC and subsequent appeal, and issue a mandatory injunction requiring NIST to correct its WTC 7 Report to include valid and transparent computer modelling of the collapse of WTC 7, that reveals the assumptions and inputs that led NIST to conclude that there would be a cascade of floor failures during WTC 7's collapse, and that allows independent researchers to reproduce NIST's modelling of WTC 7's collapse.

300. This injunction should also require NIST, pending the results of its new analysis, to revise the NIST WTC 7 report to reflect that a cascade of floor failures would not have occurred, because such a cascade of floor failures would have been physically impossible, require NIST to discard its Probable Collapse Sequence, and require NIST to develop a new Probable Collapse Sequence for WTC 7 that is physically possible.

COUNT VIII: Defendant Agency NIST Acted Arbitrarily and Capriciously in Denying Plaintiffs' IQA Request for Correction, and Subsequent Administrative Appeal, Regarding NIST's WTC 7 Report, in Adopting an Irrational Rationale that Girder A2001 Would Not Become Trapped Behind the Side Plate Prior to Having the Opportunity to Walk Off of Its Column 79 Seat, Contrary to NIST's Own Prior Computer Modelling

301. All of the foregoing and subsequent paragraphs are incorporated herein by reference.

302. This claim is brought pursuant to the Administrative Procedures Act (APA), 5 U.S.C. §§ 702, 706.

303. Column 79 was a W14 x 730 standard structural shape column with 2" x 26" built-up side plates welded to its flanges at Floor 13.

304. The girder bearing seat at Column 79 is 12 inches wide. The flange width for

W33 x 130 girder A2001 is 11.510 inches wide and centered on the seat; its web is 0.580 inches thick. This would require a lateral travel distance of 6.290 inches for the web to be beyond the seat.

305. However, the distance between the column side plates is 17.89 inches. The girder and bearing seat are slightly off center to the east, with just 3.678 inches between the girder's western edge and Column 79's western side plate.

306. Both NIST's preliminary LS-DYNA modelling and the AE funded study "A Structural Reevaluation of World Trade Center 7," an analysis conducted at the University of Alaska Fairbanks (UAF) using ABAQUS software, showed that Girder A2001, the girder spanning between Columns 79 and 44, would, if pushed by the thermally expanding Beam K3004 when heated according to NIST's assumptions, have become trapped behind the side plate, preventing Girder A2001 from walking off its support at Column 79 (contrary to NIST's purported final 16-story ANSYS computer modelling prediction).

307. NIST failed to explain to any acceptable degree of scientific precision why Girder A2001 became trapped behind the Column 79 side plate in NIST's preliminary LS-DYNA analysis but not in NIST's 16-story ANSYS model.

308. All available evidence (NIST's computer modelling code remains a "black box," secret from the public) indicates that NIST's 16-story ANSYS model ignored (i.e. was programmed to ignore) the effect that Column 79's side plate would have had in preventing the walk-off of Girder A2001.

309. Apart from and in addition to NIST's above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in reaching opposite conclusions in two different modellings as to whether Girder A2001 would become trapped behind the side

plate or instead “walk off,” NIST’s WTC 7 Report is also contrary to the IQA, the OMB Guidelines and the NIST IQS standards for Quality, which include Objectivity, Utility, and Integrity, because it is based on false assumptions and erroneous computer modelling inputs in NIST’s final 16-story ANSYS computer modeling. These assumptions and inputs differed so materially from NIST’s original WTC 7 LS-DYNA modeling that in the original NIST modelling Girder A2001 became trapped behind the side plate so that it could not walk off of its support at Column 79 and initiate a collapse of WTC 7. But, in the later NIST 16-story ANSYS modelling, Girder A2001 did not become trapped and did walk off its support at Column 79 (resulting in the collapse of WTC 7). NIST does not explain in the NIST WTC 7 Report nor in its Initial Decision or Final Decision what different assumptions or inputs were used in NIST’s final 16-story ANSYS model that resulted in this significant discrepancy, or otherwise justify this material difference in outcomes from NIST’s two different computer modelling attempts.

310. Apart from and in addition to NIST’s above referenced decisions and actions regarding the WTC 7 Report being arbitrary and capricious in its treatment of whether Girder A2001 would become trapped behind the side plate or instead “walk off,” NIST’s WTC 7 Report is also contrary to the NIST IQS standards for Quality of “influential” information, which standards include Transparency and Reproducibility, because it is based on a second computer modelling, the 16-story ANSYS modelling, that didn’t just ignore NIST’s earlier LS-DYNA modelling results that showed that Girder A2001 became trapped behind the side plate so that it could not walk off of its support at Column 79, it intentionally used different modelling inputs and assumptions, and kept that information secret, in order to achieve a materially different and false result (that Girder A2001 would *not* become trapped behind the side plate and *would* walk off of its support at Column 79).

311. NIST was not transparent in showing the public and independent investigators the different modelling inputs and assumptions used in the second modelling to get this materially different result, which remained in the secret “black box.”

312. If independent investigators, scientists, researchers, or another government agency attempted to reproduce NIST’s WTC 7 study results with the information provided in the NIST WTC 7 Report, they would not know what these different modelling assumptions and inputs were that allowed NIST in its second modelling, the 16-story ANSYS model, to create its WTC 7 Probable Collapse Sequence, and their independent modelling would consequently have to be based on essentially guesses as to NIST’s modelling assumptions and inputs. Such an uninformed process would not allow reproduction of NIST’s technical analysis and conclusions but would result in significantly different conclusions.

313. NIST’s WTC 7 Report claim regarding Girder A2001 being pushed off of its seat and not being trapped by the side plate is inaccurate, unreliable, and apparently biased because it contradicts the valid findings of its own analysis and those of the UAF analysis, thus violating the objectivity element of information quality under the OMB Guidelines and NIST IQS. NIST’s claim also violates the objectivity element of information quality because it is not presented in a complete manner.

314. NIST’s claim violates the utility element of information quality because care was not taken to make sufficient background and detail available regarding its claim, even though greater transparency would have enhanced the usefulness of the information disseminated. NIST merely provides a brief summary of its analysis results and a superficial FAQ that falls well short of explaining the discrepancies in its analyses to an acceptable degree of scientific precision.

315. NIST's claim violates the transparency standard imposed upon influential information because NIST did not practice a degree of transparency sufficient to facilitate reproducibility.

316. NIST's claim violates the reproducibility standard imposed upon influential information because — to the extent that independent analysis of the original data using identical methods could be performed — contradictory analytic results were generated by the UAF study.

317. For all the reasons stated herein, this Court should issue an order declaring NIST to have acted irrationally, and therefore arbitrarily and capriciously, in its denial of Plaintiffs' RFC and subsequent appeal, and issue a mandatory injunction requiring NIST to correct its WTC 7 Report to include valid computer modelling of the collapse of WTC 7 that is transparent in showing the assumptions and inputs used in NIST's second modelling, the 16-story ANSYS modelling, that differed from those used in NIST's first modelling, the LS-DYNA modelling, that resulted in NIST getting materially different results in the second modelling.

318. This Court should also issue an injunction requiring NIST to revise the NIST WTC 7 report to correct any false assumptions and erroneous inputs (still hiding in NIST's secret 16-story ANSYS modelling black box) that produced the factually false NIST prediction that Girder A2001 was able to and did walk off its support at Column 79, without being trapped behind the side plate, thus initiating NIST's WTC 7 Probable Collapse Sequence.

319. This Court should also issue an injunction, pending the results of NIST's new analysis, requiring NIST to develop a new Probable Collapse Sequence for WTC 7 that is not based on false assumptions and erroneous inputs.

COUNT IX: Defendant Agency NIST's WTC 7 Report and Investigation Were Arbitrary and Capricious and Not in Accordance with Law Because NIST's Report and Investigation Were Prepared and Conducted in a Manner Contrary to the

Spirit and Letter of the National Construction Safety Team Act

320. All of the foregoing and subsequent paragraphs are incorporated herein by reference.

321. This claim is brought pursuant to the Administrative Procedures Act (APA), 5 U.S.C. §§ 702, 706.

322. The NCST Act, 15 U.S.C. § 7301-7311, requires NIST to establish national construction safety teams to investigate major building failures in order to improve the safety and structural integrity of buildings in the United States. NIST, based on safety team investigations under this Act, is required to establish the likely technical cause or causes of a building failure that falls within the scope of the Act. NIST is also required under the Act to recommend, as necessary, specific improvements to building standards, codes, and practices based on its investigation findings.

323. NIST is required under the NCST Act, after completing an investigation, to have its safety team issue a public report which includes: (1) an analysis of the likely technical cause or causes of the building failure investigated; (2) any technical recommendations for changes to or the establishment of evacuation and emergency response procedures; (3) any recommended specific improvements to building standards, codes, and practices; and (4) recommendations for research and other appropriate actions needed to help prevent future building failures.

324. The NCST Act also requires NIST, after issuance of a public report, to comprehensively review the report and, working with other appropriate Federal and non-Federal agencies and organizations, (1) conduct, or enable or encourage the conducting of, appropriate research recommended by the Team; and (2) promote (consistent with existing procedures for the establishment of building standards, codes, and practices) the appropriate adoption by the

Federal Government, and encourage the appropriate adoption by other agencies and organizations, of the recommendations of the Team with respect to (A) technical aspects of evacuation and emergency response procedures; (B) specific improvements to building standards, codes, and practices; and (C) other actions needed to help prevent future building failures.

325. A copy of a record, information, or investigation submitted or received by a NIST national construction safety team is required to be made available to the public on request and at reasonable cost, unless one of the exceptions specified in the Act applies. Those exceptions are not applicable to the NIST WTC 7 computer modelling and other records and information that Plaintiffs request this Court to order released as a part of the remedy required on the Plaintiffs' claims asserted in the twelve counts of this Complaint.

326. The NCST Act requirements apply to activities of the National Institute of Standards and Technology in response to the attacks of September 11, 2001. 15 U.S.C. § 7311.

327. NIST was required by law to generate the NIST WTC 7 Report under the National Construction Safety Team Act ("NCST Act") (Pub. Law 107-231, 15 U.S.C. § 7301 et seq.)

328. NIST did generate the NIST WTC 7 Report in November 2008.

329. The "black box" secrecy implemented by NIST in regard to its WTC 7 Report and WTC 7 Probable Collapse Sequence analysis and computer modelling violates the NCST Act requirement for issuance of public reports by NIST, or at minimum represents an arbitrary and capricious failure to honor the spirit and purpose of the NCST Act.

330. NIST's actions failed to comply with the purpose and the requirements of the NCST Act by:

- a) Adopting an irrational rationale for omitting a known WTC 7 structural feature, the Stiffeners, the presence of which would have precluded NIST's asserted WTC 7 Probable Collapse Sequence;
- b) Adopting an irrational rationale, contrary to established scientific principles, mathematics, and the available evidence, that the thermal expansion of Beam K3004 could cause Girder A2001 to walk off its Column 79 support initiating NIST's WTC 7 Probable Collapse Sequence;
- c) Omitting and failing to analyze key available evidence of sulfidation and erosion of WTC steel on 9/11, evidence that is inconsistent with NIST's WTC 7 Report's conclusion of a fire driven collapse, and which supports the alternative explanation that use of explosives and incendiary materials caused the WTC 7 Collapse;
- d) Omitting and failing to analyze key available evidence of eyewitness reports of explosions at the WTC and inside WTC 7 on 9/11;
- e) Mischaracterizing the initiation of the WTC 7 collapse, adopting in its WTC 7 Report a computer modelling of the WTC 7 collapse the results of which are facially contrary to observable and measurable features of the videotaped actual WTC 7 collapse (including a period of free fall), and keeping its computer modelling secret;
- f) Adopting an irrational rationale that Girder A2001 would not become trapped behind the side plate prior to having the opportunity to walk off of its Column 79 seat, contrary to NIST's own prior computer modelling;
- g) Concluding in NIST's WTC 7 Report that a cascade of floor failures would occur, a conclusion unsupported by the available evidence and contrary to the laws of Physics; and
- h) Adopting conclusions in NIST's WTC 7 Report regarding 9/11 WTC seismic

evidence that are unsupported by the available evidence and contrary to the laws of Physics.

331. NIST, in its actions alleged in this Count IX abdicated its statutory responsibilities under the NCST Act.

332. For all the reasons stated herein, this Court should issue an order declaring NIST to have acted arbitrarily and capriciously, and contrary to law, and issue a mandatory injunction requiring NIST to correct its WTC 7 Report to comply with the requirements of the NCST Act.

COUNT X: Defendant Agency NIST's Decisions to Deny Plaintiffs' IQA Request for Correction and Subsequent Administrative Appeal Were without Observance of Procedure Required by Law Because the Agency Process for Making These Decisions Did Not Comport with Procedural Requirements of the IQA, OMB's IQA Guidelines, and NIST's Own IQS

333. All of the foregoing and subsequent paragraphs are incorporated herein by reference.

334. This claim is brought pursuant to the Administrative Procedures Act (APA), 5 U.S.C. §§ 702, 706.

335. Pursuant to OMB Guidelines, the NIST IQS provide an administrative appeal process to allow for objective and independent review of the agency's Initial Decision.

336. NIST, in deciding Plaintiffs' IQA Request for Correction, violated NIST's own adopted procedures intended to assure that the NIST official(s) deciding an RFC would be different than the NIST official(s) deciding an administrative appeal of an RFC denial, and that the agency processes of deciding an RFC and an administrative appeal would be independent, with agency officials involved in one of these processes not influencing the decision of agency officials involved in the other.

337. NIST officials involved in deciding Plaintiffs' RFC consulted with, prior to deciding Plaintiffs' RFC, higher level NIST and/or DOC officials regarding Plaintiffs RFC, and

those higher level NIST and/or DOC officials who were consulted on the decision to deny Plaintiffs' RFC were either involved in deciding Plaintiffs' appeal of NIST's denial of their RFC or were the superiors of such officials.

338. NIST's IQA procedures adopted pursuant to the OMB Guidelines require that NIST, in deciding an appeal of a RFC denial, provide in a NIST decision on an appeal a point-by-point response to each information quality argument presented in such appeal. NIST IQS, Part III(C)(3).

339. NIST failed to include in its decision on Plaintiffs' appeal of NIST's denial of Plaintiffs' RFC a point-by-point response to most of the information quality arguments presented in Plaintiffs' appeal, in violation of the NIST IQS, Part III(C)(3).

340. For all the reasons stated herein, this Court should issue an order declaring NIST to have acted arbitrarily and capriciously, and without observance of procedure required by law, and issue a mandatory injunction remanding this matter to NIST for a new decision on Plaintiffs' Appeal of NIST's denial of Plaintiffs' RFC to be made with observance of all procedures required under NIST's policies and procedures adopted pursuant to the IQA and the OMB Guidelines. Such remand should require that Plaintiffs' administrative appeal of NIST's denial of Plaintiffs' RFC be decided by officials within the DOC at a level higher than any agency official involved in or consulted on NIST's prior decisions denying Plaintiffs' RFC and denying Plaintiffs' administrative appeal of that RFC denial.

PRAYER FOR RELIEF

341. WHEREFORE, Plaintiff respectfully requests this Court, pursuant to its authority under the Administrative Procedures Act, 5 U.S.C. §§ 702, 706, to:

A. Declare that Defendants' denials of Plaintiffs' RFC and subsequent administrative

Appeal were arbitrary and capricious, not in accordance with law, and without observance of procedure required by law;

B. Issue an injunction requiring NIST to correct its WTC 7 Report so that this report complies with the IQA, including requiring NIST to develop a new WTC 7 “Probable Collapse Sequence” that is both physically possible and consistent with the evidence;

C. Issue an injunction requiring NIST to correct its WTC 7 Report so that this report complies with the NCST Act;

D. Issue an injunction requiring NIST to make public all of its WTC 7 computer modelling(s) including all computer code, data, assumptions, and input used with or for that modelling;

E. Issue an injunction requiring NIST to make public all evidence in its possession, and to disclose and describe all evidence that has been destroyed, and all other evidence known to Defendants to exist, that evinces or is consistent with the use of explosives and/or incendiaries having caused or contributed to the collapse of WTC 7;

F. Award Plaintiffs their reasonable attorney fees incurred in this action; and

G. Grant such other and further relief as the Court may deem just and proper.

Respectfully submitted

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