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December 26, 2025

Via Electronic Mail (rule-comments@sec.gov)

Ms. Vanessa Countryman, Secretary
U.S. Securities and Exchange Commission (SEC)
100 F Street NE., Washington, DC 20549

Re: Joint Industry Plan; Notice of Designation of a Longer Period for Commission Action on a Proposed Amendment, as modified by Amendment No. 1, to the National Market System Plan Governing the Consolidated Audit Trail Regarding the Customer and Account Information System

Release No. 34-104290 (File No. 4-698)[1]

Dear Ms. Countryman,

On behalf of Data Boiler Technologies, I am pleased to provide the SEC with our comments on the captioned release to "National Market System (NMS) Plan Governing the Consolidated Audit Trail (CAT) regarding the Customer and Account Information System (CAIS)." Data Boiler is a Pioneer in FinTech with patented inventions in signal processing, trade analytics, machine learning, time-lock cryptography, etc. We frequently comment on regulatory policy both domestically and abroad with over 12 years in business.

We are among the first[2] to comment on the outdated design of CAT,[3] the significant privacy and security issues,[4] and additionally argued that its funding model is inequitable.[5] The civic concerns on CAT about Massive Government Surveillance[6] should NOT be treated lightly. The current design of CAT and this proposed amendment are incompatible with Vice President JD Vance's remarks[7] about *"American AI will not be co-opted into a tool for authoritarian censorship."* We suggested a more effective and efficient real-time analytics approach that analogize the Internal Revenue Service (IRS) partnership with 13 tax preparation firms to offer FREE online Federal Tax Return service.[8] We applaud the SEC for the acknowledgement of Data Boiler's comments in disapproving CAT limited liability provisions[9] for SROs in the past.[10]

We strongly recommend the Commission to **DISAPPROVE the proposed amendment regarding CAIS**.

Takeaways:

(a) Neither the SEC nor the SROs have rights above the U.S. Constitution. Please be reminded that the Fourth Amendment, the right to be free of unwarranted search or seizure, is recognized by the Supreme Court as protecting a general right to privacy. No-one wants his/her data to be used by the regulator(s) to develop policies that potentially may discriminate against him/her. Suspicion of crime or anticipation of market turmoil should begin with some basis or require a 'search warrant' before the permissible collection or surveillance of information that would otherwise be considered as private.

[1] https://www.sec.gov/files/rules/sro/nms/2025/34-104290.pdf
[2] https://tabbforum.com/opinions/why-the-cat-is-a-bad-idea/
[3] https://www.linkedin.com/pulse/cat-outdated-design-since-2012-kelvin-to/
[4] https://www.linkedin.com/pulse/cat-through-z-security-privacy-requirements-kelvin-to/
[5] https://www.linkedin.com/pulse/cat-both-original-funding-executed-share-models-inequitable-kelvin-to/
[6] https://cs.stanford.edu/people/eroberts/cs181/projects/ethics-of-surveillance/ethics.html
[7] https://www.presidency.ucsb.edu/documents/remarks-the-vice-president-the-artificial-intelligence-action-summit-paris-france
[8] https://www.linkedin.com/pulse/hr-block-analogy-cat-combating-fraud-kelvin-to/
[9] https://www.linkedin.com/pulse/cat-outside-delegate-authorities-kelvin-to/
[10] https://www.sec.gov/rules/sro/nms/2021/34-93484.pdf

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(b) Unlike the census, collection of non-public and personally identifiable information (PII) by CAT for all trade activities without express consent by the investors is an intrusion of one's privacy. Stakeholders of CAT should NOT be placed above the law. Congress confers the authority to the Department of Commerce to conduct census, NOT the SEC.

(c) Creating new jargon, such as *"Account Reference Data"* (ARD) and *"Customer Reference Data"* (CRD) to supersede *"Customer Account Information"* (CAI) and *"Customer Identifying Information"* (CII) respectively does NOT make CAT less vulnerable to privacy and cybersecurity threats (lipstick on a pig is still a pig). The propose retention of ARD and CRD together with the log-data that documenting and reviewing deletions of Customer names, address, years-of-birth, authorized trader names, SSNs/ ITINs under the Proposed Amendment is indeed allowing the *possibility of reverse-engineering to reconstruct the entire CAI and CII privacy information*. CAT LLC operating committee undermined related privacy and security risks. The whole concept of requiring everyone to submit data into a centralized vault is flawed and invasive. *Golden-sources of data"* are indeed prime targets attracting hackers to treasure hunt.

(d) It is unjust for CAT LLC to retain ARD and CRD records under the Exchange Act Rule 17a-1. §17a-1 record retention requirements are obligations of the SROs that are separate from the private entity – CAT LLC (a subsidiary of FINRA). We oppose CAT LLC attempts to cross-subsidize SROs in fulfillment of obligations that deviate from the CAT project's original purposes. This could be considered *functional creep*[11] or alleged misallocation of CAT funding resources.

(e) §13(f) filings already provide transparency for the public, regulators, and other investors about essential information of securities holdings of institutional investors (issuer name, class of security, number of shares, and fair market value) that supports the Securities Exchange Act. If policy makers want to collect additional investor information beyond §13(f) filings, then please update 13(f) requirements and go through proper law-making procedures.

(f) If the SEC and SROs are interested in the underlying beneficial shareholders information, my former employer – Broadridge Financial (NYSE: BR) can perform a broker search as needed and for appropriate purposes. Why reinvent the wheel? If SEC and SROs want to develop their own similar capabilities instead of paying or partnering with a private vendor, then an appropriate costs-benefits justification and separate apportioning of Federal funding are required.[12] By holding shares in *"Street Name"* or using a Nominee or Trust, one's voting rights are affected by indirect voting / broker non-votes, while getting trading convenience and receiving dividends/proxies. Ordinary investors get nothing in return of their privacy being invaded by CAT.

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[11] https://www.schneier.com/blog/archives/2010/02/security_and_fu.html

[12] If the CAT fee is related to *"facilitating risk-based examinations"* and/or *"improving abilities for evaluating tips, complaints and referrals of potential misconduct made to regulators, monitoring and evaluating changes to market structure"*, then the SEC and SROs may go back to the Congress for funding or pay for it using collected fines, penalties, and intragovernmental fees, but not *"user fees"*.

If the CAT fee is related to *"better identification of potentially manipulative trading activity, increased efficiency of cross-market and principal order surveillance"*, then private surveillance businesses affiliated with Exchange Groups stand to receive benefits from CAT, hence they should pay the most if not all of such CAT costs.

If the CAT fee is related to *"improving efficiencies from a potential reduction in disparate reporting requirements and data requests"*, then it should be segregated into the regulators' portion and the users' portion. If CAT is constituted as one of the *"user fees"* imposed by the SEC and/or SROs, then according to the Government Accountability Office, these *"fees assessed to users for goods or services provided by the Federal Government are deposited to the Treasury as miscellaneous receipts and are generally not available to the agency."* Fees assessed under the authority of the Independent Offices Appropriation Act of 1952 (codified at 31 U.S.C. § 9701), rather than under a specific authorizing statute, must be deposited to the Treasury as miscellaneous receipts and are not available to the agency or program that collected the fees, unless otherwise authorized by law.

(g) Whoever prescribes and the CAT LLC confirms, *"the Plan Processor will record all access to, and all queries of, data stored in the Reference Database in a series of logs that can be used to generate periodic reports in the same way that the Plan Processor currently records and tracks access to the broader CAT System"* is fooling themselves and the public. *"The Chief Compliance Officer and the Chief Information Security Officer shall have access to daily PII reports that list all users who are entitled for PII access, as well as the audit trail of all PII access that has occurred for the day being reported on."* We argue that there should be NO access to CAT for *"market surveillance"* purposes prior to identifying symptoms of irregularity that are substantiated by data at Securities Information Processors/ Competing Consolidators and/or analytical procedures at SROs/ the SEC. Both the user access and generation of daily PII reports are acting outside of delegate authorities and are inconsistent with Securities Exchange Act.

(h) CAT LLC proposes adding to the Article I definition of *"Full Availability and Regulatory Utilization of Transactional Database Functionality"* is problematic. The *"defined purposes"* of accessing CAT should be much narrower than the broadly defined *"regulatory purposes"*. To be consistent with §11A or any other provision of the Securities Exchange Act of 1934, we think the SEC has full authority to pursue, without worry of other U.S. regulatory authorities' objection, to demand better Suspicious Activity Report (SAR) from Broker-Dealers (BDs) and/or order improvements of BDs' trade controls or fulfill certain compliance requirements, but NOT via CAT's data collection. Using the IRS tax filing as an illustrating analogy, the IRS asks for income information, but would NOT ask for the complete customer and supplier lists and detail transactions unless the party is being summoned in court.

(i) Amid CAT LLC confirmed they do not intend to change the meaning of the term *"Full Availability and Regulatory Utilization of Transactional Database Functionality"* that represents one of the *"Financial Accountability Milestones"* (FAM) through the addition of the footnotes that described the terms CII and CAI, the so-called *"narrower scope of customer-and-account-related information"* is merely whitewashing CAT's PII and security flaws. Refusal to make a concrete and complete overhaul to the out-of-date technical design of CAT since 2012, the CAT project is and will continue be a Money Pit.

(j) The so-called *"monitoring and documentation of access to the Reference Database under the Proposed Amendment"* exposes a higher risk than it intends to address. The CAT NMS Plan failed to address the following causes for potential information leak: Membership Inference Attacks, Reconstruction Attacks, Property Inference Attacks, and Model Extraction.[13] CAT is an outsized time-bomb vulnerable to internal compromise and external hackers' attacks.

(k) Amid CAT LLC confirmed that Firm Designated ID (FDID) validations would not change as a result of implementing the Proposed Amendment, the design and whole data validation process of *"investigating FDID mismatches"* ought to be revisited. *"Trade Reporting"* is outdated. Frequent transmittal of data in-and-out and within CTP, unnecessary data-in-motion traffics, is wastage and more susceptible to defects.[14] Instead of "SEND," "OBTAIN" or Read-Only permission to "wiretap" data legally at its source is a substantially better approach – (1) benefits of consistency; (2) prevent single point of failure; (3) values of bespoke model connecting to everyone.

[13] https://arxiv.org/pdf/2007.07646.pdf ; hackers do not necessarily come from outside; compromised internal executive(s) and staff(s) and contractors may pose even higher dangers because of potential cover ups and abilities to profit off any stolen data. The Central Intelligence Agency – Edward Snowden case is a prime example, i.e. NOT a hypothetical "black swan" cyber breach. … An insecure and breached CAT can cause the destabilization of the U.S. capital market, which trades in trillion dollars daily. CAT must up its game for security protection against infiltration and foreign adversaries or else it could become a threat to National Security.

[14] https://www.databoiler.com/index_htm_files/DataBoilerInMotion.pdf ; When data is *"at-rest"* rather than *"in-use,"* it serves no value other than one must pay for storage of the data (lose 28% to 32% of the money they spend on the cloud to unnecessary bloat).

Captioned releases of CAT NMS Plan amendment proposals are inconsistent with §11A of the Exchange Act, the Fourth Amendment of US Constitution,[15] the Department of Justice's latest edition of the Privacy Act of 1974. The CAT's technical design since 2012 as a golden-source while well intended (or a *"gigantic data-vault"*) is out-of-date. It will take "forever" to come up with a "golden" unified "single source of truth". By the time a common standard is adhered, the value of the data will subside to almost worthless within the context of market surveillance.

Larry Tabb (Director of Market Structure Research at Bloomberg LLP, former Research Chairman of TABB Group) once stated, *"I am starting to change my views on this… the challenge on the other side of that is If they can … to get a really good, consistent, qualitative audit trail that enables me to roll forward and roll back to see exactly what happening that would be great… but the problem is, first of all, the CAT is not going to have futures, and that's a huge issue if do you not know what's going on in another market, the second is the whole issue of data synchronization computer synchronization … at 50 milliseconds … and when you are looking at the amount of financial messages that is occurred at a tenth of a second these days, it could be hundreds of thousands of messages that go on, how am I going to tell which message I am reacting to … which message started something … which message ended something … if there are couple of hundred thousand messages that I have to work sort through that I can't tell the difference whether it came in first, second, third, or a hundred thousand… if we can't have an effective audit trail that helps us better understand how these markets are tied, where they are going, what order came first, what order came second, or at least get down into a 100 of messages that are happening within a period, and away from a hundred of thousands of messages that are happening at any given point in time, I am just worried that this whole thing is just going to be a complete waste of money…"*

Per our 2016 comment letter,[16] *"The plan lacks a dynamic analytical framework embedded in the design. The T+5 Schedule for regulatory access is useless in terms of effective market surveillance in prevention of threats to the U.S. financial stability."* Why would large Exchange Groups with robust surveillance systems and linked to market data feeds at nanosecond precision need a *"50± millisecond tolerance"* CAT system? We are suspicious about the focus of unique identifiers – CAT Customer-ID (CCID) and how it may be misused. What if these CCID, non-public data and PII report logs offer valuable insights to help Exchanges target to attract order flow? The only parties that stand to gain from an ever-growing size of CAT may be the vendors. These cloud storage, security, infrastructure, data processing vendors and other big law or compliance consultant firms add layers of costs to the industry without adding much value to the monitoring and analytical aspects of CAT. How sad for the reluctant to make changes after all these years!

Please revisit Table 1 of our November 2020 comment letter,[17] which showcases the *"A through Z"* security and privacy clauses. We recommend the SEC to adopt these clauses as part of the minimum requirements for principle-based rules rather than making specific reference to revision 4 of SP800-53 by the NIST.

Huge losses can be accumulated within split-second. Market collapse does not take more than one day. Analysts need sensors, not an encyclopedia. A good decision, made now and pursued aggressively, is substantially superior to a perfect decision made too late. Per our January 2021 comment letter,[18] we envisage a crowd model to reduce unknown unknowns while enhancing security of CAT. The benefits of our suggested approach are: (a) dramatically reduce CAT footprint or data storage and traffic by avoiding unnecessary redundant copies of data and minimize 'data-in-motion'; (b) confine access to CAT data to 'targeted search' of relevant data that fits the 'defined purposes'; and (c) better intelligence for market

[15] https://constitution.congress.gov/constitution/amendment-4/
[16] https://www.databoiler.com/index_htm_files/DataBoiler%20CAT613%20Comments.pdf
[17] https://www.databoiler.com/index_htm_files/DataBoiler SEC CAT Enhanced Security.pdf
[18] https://www.databoiler.com/index_htm_files/DataBoiler SEC CAT Limitation Liability.pdf

monitoring by enabling and rewarding the crowd for identifying early warning signals to potential flash crash or other trade irregularities.

We do NOT believe the proposed amendments if adopted would achieve its stated *"cost savings and efficiency."* Referencing to 2022 CAT Budget, $118.7 million (73.8% of total technology cost or 69% of operating cost) goes to (Amazon AWS) Cloud hosting services. CAT majored in the minors – overemphasis on storage, and not enough coverage of pattern recognition and/or systemic way to *"red-flag"* suspicious activities.Reference to our May 2021 comment letter,[19] CAT's Funding does NOT have to be a *"Sh*t hit the fan"* scenario, there are better alternatives. If the CAT operating committee's funding authority under Article XI §11.1 is a delegated power conferred by the SEC to perform a public duty, the following concerns and/or questions are still unaddressed as of today:

- Bifurcated Cost Allocation is Inequitable and Proposed Minimum for Industry Members
- The allocation and minimum are undue burden on Industry Members
- Proposed CAT Participants allocation versus Our Counter Suggestions

CAT has an Outdated Design, is an Outsized Elephant. National security and privacy ordinance matters are Outside Jurisdiction of the SEC and the SROs to make sole determination. The unbearable building and on-going operating costs of CAT Outweigh its Benefits.

Feel free to contact us with any questions and please keep us posted where our expertise might be helpful.

Sincerely,

Kelvin To

Founder and President

Data Boiler Technologies, LLC

This letter is also available at: https://www.DataBoiler.com/index_htm_files/DataBoiler%20SEC%20CAT%20202512.pdf

Cc: The Honorable Paul S. Atkins, Chairman of the SEC
The Honorable Hester M. Peirce, Commissioner of the SEC
The Honorable Caroline A. Crenshaw, Commissioner of the SEC
The Honorable Mark T. Uyeda, Commissioner of the SEC
Mr. Jamie Selway, Director, Division of Trading and Markets, SEC

[19] https://www.databoiler.com/index_htm_files/DataBoiler%20SEC%20CAT%2020210503.pdf