

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

JOSEPH VAN LOON *et al.*,

Plaintiffs,

v.

DEPARTMENT OF THE TREASURY
et al.,

Defendants.

Civil Action No. 1:23-cv-312-RP

**DEFENDANTS' CROSS-MOTION FOR SUMMARY JUDGMENT AND OPPOSITION
TO PLAINTIFFS' MOTION FOR PARTIAL SUMMARY JUDGMENT**

TABLE OF CONTENTS

INTRODUCTION..... 1

I. Legal Background.....2

 A. The International Emergency Economic Powers Act.....2

 B. Executive Orders Providing for Sanctions in Response to Significant Malicious Cyber-Enabled Activities4

 C. Executive Order Providing for Sanctions with Respect to North Korea5

II. Factual Background6

 A. Cryptocurrency and Blockchain Technology.....7

 B. Ethereum.....8

 C. Cryptocurrency Mixers9

 D. Tornado Cash10

 E. OFAC’s Designation of Tornado Cash12

 F. OFAC’s Issuance of Guidance through FAQs.14

III. Procedural Background.....15

STANDARD OF REVIEW17

ARGUMENT.....18

I. Tornado Cash Is an Entity That May Be Designated.18

II. Tornado Cash Has a Property Interest in Its Smart Contracts.26

 A. The Smart Contracts Are Property.....27

 B. Tornado Cash Has an Interest in the Smart Contracts.33

III. Defendants Are Entitled to Summary Judgment on the First Amendment Claim.36

 A. The Designation Does Not Implicate Plaintiffs’ Protected Speech.36

 B. In Any Event, the Designation Satisfies the Applicable Standard.....40

CONCLUSION.....43

TABLE OF AUTHORITIES**Cases**

<i>Appalachian Elec. Power Co. v. NLRB</i> , 93 F.2d 985 (4th Cir. 1938)	35
<i>Armenta v. Chatman</i> , 371 F. App'x 452 (5th Cir. 2010)	17
<i>Ass'n of Am. Physicians & Surgeons, Inc. v. Schiff</i> , 23 F.4th 1028 (D.C. Cir. 2022)	37
<i>Bd. of Trs. of State Univ. of N.Y. v. Fox</i> , 492 U.S. 469 (1989)	41
<i>Benjamin v. Town of Islip</i> , No. 20-cv-56, 2021 WL 8344132 (E.D.N.Y. Aug. 12, 2021)	31
<i>Boyle v. United States</i> , 556 U.S. 938 (2009)	22
<i>Busby v. Elec. Utils. Emps. Union</i> , 323 U.S. 72 (1944)	23
<i>Camp v. Pitts</i> , 411 U.S. 138 (1973)	17
<i>Chaffin v. Atlanta Coca Cola Bottling Co.</i> , 194 S.E. 2d 513 (Ga. Ct. App. 1972)	29
<i>Citizens United v. Fed. Election Comm'n</i> , 558 U.S. 310 (2010)	42
<i>Commodity Futures Trading Comm'n v. Ooki DAO</i> , No. 3:22-cv-5416, 2022 WL 17822445 (N.D. Cal. Dec. 20, 2022)	24
<i>Coniston Corp. v. Vill. of Hoffman Ests.</i> , 844 F.2d 461 (7th Cir. 1988)	31
<i>Consarc Corp. v. Iraqi Ministry</i> ("Consarc I"), 27 F.3d 695 (D.C. Cir. 1994)	20
<i>Consarc Corp. v. OFAC</i> ("Consarc II"), 71 F.3d 909 (D.C. Cir. 1995)	20
<i>Dames & Moore v. Regan</i> , 453 U.S. 654 (1981)	2

<i>Doe I v. Landry</i> , 909 F.3d 99, 108 (5th Cir. 2018)	40
<i>Edison Elec. Inst. v. OSHA</i> , 849 F.2d 611 (D.C. Cir. 1988)	17
<i>Eldred v. Ashcroft</i> , 255 F.3d 849 (D.C. Cir. 2001)	17
<i>Exxon Mobil Corp. v. Mnuchin</i> , 430 F. Supp. 3d 220 (N.D. Tex. 2019)	25
<i>Global Relief Found., Inc. v. O’Neill (“Global Relief P”)</i> , 207 F. Supp. 2d 779 (N.D. Ill. 2002), <i>aff’d</i> , 315 F.3d 748 (7th Cir. 2002)	20
<i>Global Relief Found., Inc. v. O’Neill (“Global Relief IP”)</i> , 315 F.3d 748 (7th Cir. 2002)	33, 34, 35, 41
<i>Grenier v. Air Express Int’l Corp.</i> , 132 F. Supp. 2d 1198 (D. Minn. 2001)	29
<i>Heinold Hog Market, Inc. v. McCoy</i> , 700 F.2d 611 (10th Cir. 1983)	24, 25
<i>Hersh v. U.S. ex rel. Mukasey</i> , 553 F.3d 743 (5th Cir. 2008)	42
<i>Holy Land Found. for Relief & Dev. v. Ashcroft (“Holy Land P”)</i> , 219 F. Supp. 2d 57 (D.D.C. 2002), <i>aff’d</i> , 333 F.3d 156 (D.C. Cir. 2003)	<i>passim</i>
<i>Holy Land Found. for Relief & Dev. v. Ashcroft (“Holy Land IP”)</i> , 333 F.3d 156 (D.C. Cir. 2003)	<i>passim</i>
<i>In re Bibox Grp. Holdings Ltd. Sec. Litig.</i> , 534 F. Supp. 3d 326 (S.D.N.Y. 2021)	30
<i>Karadzic v. Gacki</i> , 602 F. Supp. 3d 103 (D.D.C. 2022)	20
<i>Karl Rove & Co. v. Thornburgh</i> , 39 F.3d 1273 (5th Cir. 1994)	24
<i>L.A. Police Dep’t v. United Reporting Pub. Corp.</i> , 528 U.S. 32 (1999)	42
<i>Laird v. Tatum</i> , 408 U.S. 1 (1972)	39

<i>Larson v. Geren</i> , No. SA-08-CA-722-FB, 2010 WL 11542078 (W.D. Tex. Apr. 14, 2010), <i>aff'd</i> , 432 F. App'x 356 (5th Cir. 2011)	18
<i>McCutcheon v. Fed. Election Comm'n</i> , 572 U.S. 185 (2014)	37, 43
<i>Moose Lodge No. 107 v. Irvis</i> , 407 U.S. 163 (1972)	42
<i>Morales v. Sun Construction, Inc.</i> , 541 F.3d 218 (3d Cir. 2008)	32
<i>NAACP v. Alabama ex rel. Patterson</i> , 357 U.S. 449 (1958)	37
<i>Olenga v. Gacki</i> , 507 F. Supp. 3d 260 (D.D.C. 2020)	20
<i>Orvis v. Brownell</i> , 345 U.S. 183 (1953)	3
<i>Propper v. Clark</i> , 337 U.S. 472 (1949)	3
<i>Redmond v. United States</i> , 507 F.2d 1007 (5th Cir. 1975)	18
<i>Regan v. Wald</i> , 468 U.S. 222 (1984)	3, 28
<i>Rensel v. Centra Tech, Inc.</i> , No. 17-24500-CIV, 2018 WL 4410110 (S.D. Fla. June 14, 2018)	30
<i>Russell v. Bd. of Plumbing Examiners</i> , 74 F. Supp. 2d 349 (S.D.N.Y. 1999), <i>aff'd</i> , 1 F. App'x 38 (2d Cir. 2001)	17
<i>S. Cal. Darts Ass'n v. Zaffina</i> , 762 F.3d 921 (9th Cir. 2014)	23
<i>Sarcuni v. bZx DAO</i> , No. 22-cv-618, 2023 WL 2657633 (S.D. Cal. Mar. 27, 2023).....	21
<i>Shah v. Azar</i> , 920 F.3d 987 (5th Cir. 2019)	21
<i>Snyder v. STX Techs., Ltd.</i> , No. 19-6132, 2020 WL 5106721 (W.D. Wash. Aug. 31, 2020)	31

<i>Stop B2H Coal. v. Bureau of Land Mgmt.</i> , 552 F. Supp. 3d 1101 (D. Or. 2021)	17
<i>Streber v. Hunter</i> , 221 F.3d 701 (5th Cir. 2000)	26, 29
<i>Turner Broad. Sys., Inc. v. FCC</i> , 512 U.S. 622–43 (1994)	40
<i>United States v. Griffith</i> , 515 F. Supp. 3d 106 (S.D.N.Y. 2021)	32
<i>United States v. O'Brien</i> , 391 U.S. 367 (1968)	40
<i>United States v. Sturm, Ruger & Co.</i> , 84 F.3d 1 (1st Cir. 1996)	17
<i>United States v. Williams</i> , 553 U.S. 285 (2008)	41, 42
<i>Weaver v. Basic Energy Servs., L.P.</i> , No. MO-13-CV-022, 2014 WL 12513180 (W.D. Tex. Jan. 8, 2014), <i>aff'd</i> , 578 F. App'x 449 (5th Cir. 2014)	17
<i>Wells Fargo Bank, N.A. v. United States</i> , 88 F.3d 1012 (Fed. Cir. 1996)	29
<i>Whirlwind Mfg. Co. v. United States</i> , 344 F.2d 153 (5th Cir. 1965)	21
<i>Williams v. Block one</i> , No. 20-CV-2809, 2022 WL 5294189 (S.D.N.Y. Aug. 15, 2022)	31
<i>Wright v. United States</i> , 164 F.3d 267 (5th Cir. 1999)	18
<i>Zimmerman v. City of Austin</i> , 881 F.3d 378 (5th Cir.), <i>cert. denied</i> , 139 S. Ct. 639 (2018)	42

Statutes

5 U.S.C. § 706	17
50 U.S.C. § 1701(a)	3
50 U.S.C. § 1702	<i>passim</i>

50 U.S.C. § 4305(b)(1)	2
Ariz. Rev. Stat. Ann. § 44-7061 (2018)	30
Cal. Corp. Code § 18035	23
<i>North Korea Sanctions and Policy Enforcement Act</i> , Pub. L. No. 114-122, § 104, 130 Stat. 99 (codified as amended at 22 U.S.C. § 9214)	5
Tenn. Code. Ann. § 47-10-202 (2018)	30
<i>Trading With the Enemy Act</i> , 40 Stat. 411 (1917) (codified as amended at 50 U.S.C. §§ 4301–4341)	2

Rules

Fed R. Civ. P. 17(b)(3)	23
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Legislative Materials

S. Rep. No. 95-466 (1977), <i>reprinted in</i> 1977 U.S.C.C.A.N. 4540	3
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Administrative and Executive Materials

31 C.F.R. pt. 510	6
31 C.F.R. pt. 578	5
31 C.F.R. § 501.807	5
31 C.F.R. § 510.305	18, 20, 23
31 C.F.R. § 510.322	18, 20
31 C.F.R. § 510.323	27, 30
31 C.F.R. § 578.305	18, 20, 23
31 C.F.R. § 578.313	4, 5, 18, 20
31 C.F.R. § 578.314	27, 30
31 C.F.R. § 578.404	5, 40
31 C.F.R. § 578.802	5
Exec. Order No. 12,978, 60 Fed. Reg. 54,579 (Oct. 21, 1995)	3

Exec. Order No. 13,224, 66 Fed. Reg. 49,079 (Sept. 23, 2001).....	3
Exec. Order No. 13,382, 70 Fed. Reg. 38,567 (June 28, 2005).....	3
Exec. Order No. 13,694, 80 Fed. Reg. 18,077 (Apr. 2, 2015).....	4, 5, 6
Exec. Order No. 13,722, 81 Fed. Reg. 14,943 (March 18, 2016)	<i>passim</i>
Exec. Order No. 13,757, 82 Fed. Reg. 1 (Jan. 3, 2017)	4, 5, 18
<u>Other</u>	
2 William Blackstone, <i>Commentaries</i> 391	31
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Paul Weiss, <i>Legal Notice</i> , https://www.paulweiss.com/notices/legal-notice	28
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INTRODUCTION

Tornado Cash is an organization that profits from the software it developed, maintains, and updates. Its software allows anyone with an Internet connection to anonymously transfer digital currency, by depositing the currency, mixing it with the deposits of many others, and then withdrawing it to a destination account, thereby obscuring the link between sender and recipient. Unsurprisingly, Tornado Cash's software is often used for money laundering by criminal enterprises and foreign adversaries, including the Lazarus Group, a hacking collective operated by the Government of North Korea that has used Tornado Cash to launder millions of dollars to fund North Korea's weapons programs. The Department of the Treasury's Office of Foreign Assets Control (OFAC) found that Tornado Cash had provided material support both for malicious cyber-enabled activities and to the Government of North Korea, which is conduct that falls squarely within the scope of executive orders declaring national emergencies on those topics, for which the President authorized sanctions under the International Economic Emergency Powers Act (IEEPA). OFAC designated Tornado Cash for sanctions under these authorities, adding it to the List of Specially Designated Nationals and Blocked Persons ("SDN List") and prohibiting those subject to U.S. jurisdiction from transacting with Tornado Cash or its property or interests in property.

Plaintiffs are six Americans who claim that they wish to use Tornado Cash's services for lawful purposes. They have moved for partial summary judgment, asserting that OFAC's actions violate both the Administrative Procedure Act (APA) and the First Amendment. Suggesting that Tornado Cash's blockchain-enabled operations place it uniquely beyond the reach of U.S. sanctions, Plaintiffs allege that OFAC cannot take any action against Tornado Cash because it is not an entity; that Tornado Cash lacks a property interest in so-called "smart contracts" it creates and for which it sets favorable terms; and that blocking digital currency transactions with Tornado Cash's software programs chills Plaintiffs' speech.

All of these claims lack merit, and summary judgment should be entered for the Government. Plaintiffs’ repeated refrain that Tornado Cash is “decentralized” does not change the fact that, at bottom, it is a group of individuals who are organized to act in concert, in service of operating, promoting, and updating their mixing service for anonymous digital currency transactions, and making money in the process. In this respect, Tornado Cash is hardly different from a corporation or other entity with a more familiar organizational structure. Plaintiffs also claim that Tornado Cash’s smart contracts are not “property,” but the software falls comfortably within the regulatory definition of “property.” Moreover, Tornado Cash plainly has an interest in that property, and OFAC’s designation, blocking transactions with that property, is therefore lawful. That designation also does not impinge on Plaintiffs’, or anyone’s, First Amendment rights. They remain free to donate money to causes of their choosing using any other method or platform, and they are also free to work with and otherwise interact with Tornado Cash’s source code, which is activity explicitly licensed by OFAC.

For all of these reasons, the Court should reject Plaintiffs’ meritless challenges to OFAC’s designation.

BACKGROUND

I. Legal Background

A. The International Emergency Economic Powers Act

For nearly its entire history, the United States has used economic sanctions as a critical means to protect national security and achieve foreign policy goals. During most of the twentieth century, U.S. sanctions programs were governed by the Trading With the Enemy Act (“TWEA”), enacted in 1917. *See* TWEA, ch. 106, 40 Stat. 411, 411–16 (1917) (codified as amended at 50 U.S.C. §§ 4301–4341). As amended in 1933, TWEA granted the President “broad authority” to “investigate, regulate . . . prevent or prohibit . . . transactions” in times of war or declared national emergencies. 50 U.S.C. § 4305(b)(1); *see Dames & Moore v. Regan*, 453 U.S. 654, 670, 672 (1981). That authority has

been consistently interpreted to encompass the power to block or freeze an entity's property. *See, e.g., Orris v. Brownell*, 345 U.S. 183, 187–88 (1953); *Propper v. Clark*, 337 U.S. 472, 483–84 (1949).

In 1977, Congress amended TWEA and enacted the International Emergency Economic Powers Act (“IEEPA”). *See* S. Rep. No. 95-466, at 1–2 (1977), *reprinted in* 1977 U.S.C.C.A.N. 4540, 4541. IEEPA grants to the President essentially the same broad authorities as TWEA but allows the President to use those authorities to act in response to peacetime crises. *See Regan v. Wald*, 468 U.S. 222, 227–28 (1984). To that end, IEEPA authorizes the President to declare national emergencies “to deal with any unusual and extraordinary threat, which has its source in whole or substantial part outside the United States, to the national security, foreign policy, or economy of the United States.” 50 U.S.C. § 1701(a). Once a national emergency is declared, IEEPA authorizes the President to:

[R]egulate, direct and compel, nullify, void, prevent or prohibit, any . . . transfer . . . of, or dealing in, or exercising any right, power, or privilege with respect to, or transactions involving, any property in which any foreign country or a national thereof has any interest[,] by any person, or with respect to any property, subject to the jurisdiction of the United States[.]

Id. § 1702(a)(1)(B).

Pursuant to this authority, and in response to a variety of declared national emergencies, presidents have imposed sanctions with respect to many countries, including Iran, Burma, and North Korea, as well as on individuals and entities, such as narcotics trafficking groups, proliferators of weapons of mass destruction, terrorist groups, and, as relevant to this case, those who provide support for malicious cyber-enabled activities. *See, e.g.,* Exec. Order No. 12,978, 60 Fed. Reg. 54,579 (Oct. 21, 1995) (blocking assets of persons who “play a significant role in international narcotics trafficking centered in Colombia”); Exec. Order No. 13,382, 70 Fed. Reg. 38,567 (June 28, 2005) (blocking assets of persons who have engaged in transactions that have materially contributed to the proliferation of weapons of mass destruction and their supporters); Exec. Order No. 13,224, 66 Fed. Reg. 49,079 (Sept. 23, 2001) (blocking assets of persons determined “to have committed, or to pose a significant

risk of committing, acts of terrorism that threaten” U.S. national security); Exec. Order No. 13,694, 80 Fed. Reg. 18,077 (Apr. 2, 2015) (blocking assets of persons who have engaged in or supported for malicious cyber-enabled activities); Exec. Order No. 13,722, 81 Fed. Reg. 14,943 (March 18, 2016) (blocking assets of persons who have provided support for North Korea).

As amended, IEEPA further provides that, in case of judicial review of an IEEPA-based blocking designation, an agency record containing classified information “may be submitted to the reviewing court *ex parte* and *in camera*.” 50 U.S.C. § 1702(c).

B. Executive Orders Providing for Sanctions in Response to Significant Malicious Cyber-Enabled Activities

In accordance with IEEPA, the President issued Executive Order (“E.O.”) 13694 on April 1, 2015. Exec. Order No. 13,694, 80 Fed. Reg. 18,077 (Apr. 2, 2015). That order explained the President’s determination that “the increasing prevalence and severity of malicious cyber-enabled activities originating from . . . outside the United States constitutes an unusual and extraordinary threat to the national security, foreign policy, and economy of the United States.” *Id.* As a consequence, the President declared a national emergency to counter the articulated threat, blocking the property and interests in property of certain persons engaged in such malicious cyber-enabled activities. *Id.*

Later, the President took additional steps by issuing E.O. 13757, which amended E.O. 13694 to address “the increasing use of [significant malicious cyber-enabled activities] to undermine democratic processes or institutions.” Exec. Order No. 13,757, 82 Fed. Reg. 1 (Jan. 3, 2017). In relevant part, the order provides for blocking the property and interests in property of “any person”—*i.e.*, “individual or entity,” 31 C.F.R. § 578.313—that the Secretary of the Treasury determines is “responsible for or complicit in” or has “engaged in, directly or indirectly, cyber-enabled activities originating from, or directed by persons located . . . outside the United States” where such activities (1) “are reasonably likely to result in, or have materially contributed to, a significant threat to the national security” or U.S. “foreign policy[] or economic health” and (2) “have the purpose or effect

of . . . causing a significant misappropriation of funds or economic resources, trade secrets, personal identifiers, or financial information for commercial or competitive advantage or private financial gain.” E.O. 13,757, § 1. The order also provides for blocking the property and interests in property of “any person” that the Secretary determines “materially assisted, sponsored, or provided financial, material, or technological support for” any such cyber-enabled activity. *Id.*

E.O. 13694, as amended by E.O. 13757, further authorizes the Secretary “to take such actions, including the promulgation of rules and regulations, and to employ all powers granted to the President by IEEPA as may be necessary to carry out the purposes of this order.” E.O. 13,694, § 8. Subsequently, the Secretary delegated to the Director of OFAC the authority to block persons under E.O. 13694, as amended. *See* 31 C.F.R. § 578.802. Pursuant to that delegation, OFAC promulgated regulations to implement E.O. 13694, as amended. *See* 31 C.F.R. pt. 578. OFAC’s regulations provide bases and procedures for any blocked person to challenge their designation and procedures for OFAC’s consideration of and response to any such challenge. *Id.* § 501.807. These regulations also allow for general and specific licenses that would authorize transactions otherwise prohibited by the sanctions. *See id.* § 578.404.

C. Executive Order Providing for Sanctions with Respect to North Korea

Also in accordance with IEEPA,¹ the President issued E.O. 13722 on March 15, 2016, which took additional steps to address a previously declared national emergency with respect to North Korea. Exec. Order No. 13722, 81 Fed. Reg. 14,943 (March 18, 2016). The President explained that “the Government of North Korea’s continuing pursuit of its nuclear and missile programs . . . increasingly imperils the United States and its allies.” *Id.* The President therefore blocked the property and

¹ Plaintiffs’ brief discusses the North Korea Sanctions and Policy Enforcement Act (NKSPEA), *see* Pub. L. No. 114-122, § 104, 130 Stat. 99 (codified as amended at 22 U.S.C. § 9214). Although this statute is listed in Executive Order 13757 as a source of authority, OFAC did not rely on that authority in the Tornado Cash designation. *See* A.R. 14–15.

interests in property of the Government of North Korea and the Workers' Party of Korea. *Id.* § 1(a). In addition, the President blocked persons determined “to have materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of” the Government of North Korea. *Id.* § 2(a)(vii).

E.O. 13722 authorizes the Secretary of the Treasury “to take such actions, including the promulgation of rules and regulations, and to employ all powers granted to the President by IEEPA [and the United Nations Participation Act of 1945] as may be necessary to carry out the purposes of this order.” E.O. 13694, § 8. The Secretary later delegated to the Director of OFAC the authority to block persons under E.O. 13722, and OFAC promulgated implementing regulations in response. *See* 31 C.F.R. pt. 510.

II. Factual Background

As set forth below, OFAC designated Tornado Cash on two bases: (1) for having provided material support for malicious cyber-enabled activities under section 1(a)(iii)(B) of E.O. 13694, as amended; and (2) for having provided support to the Government of North Korea under section 2(a)(vii) of E.O. 13722. *See* Administrative Record, CYBER2-29777-00016 (“A.R. 16”). While Tornado Cash is distinct from a traditional financial institution, it offers its users some of the same services: users can make payments, store their assets, and direct transfers to others. And no less for its virtual form, Tornado Cash engages in activities that present risks to our national security and foreign policy. OFAC appropriately took action to address the threat posed by Tornado Cash, relying on time-tested legislative and executive branch authority, as well as a robust administrative record,

including its Evidentiary Memorandum, which recites the basis for the agency’s action. *See id.* at 1–100.

A. Cryptocurrency and Blockchain Technology

A “blockchain” is a decentralized ledger, or record of transactions, that relies on an online network of users, who maintain the ledger’s accuracy through cryptographic algorithms. *See* A.R. 21, 875. “Cryptocurrency” is a type of virtual currency that can be traded and exchanged on blockchains, and that can be used for payment or investment purposes. *Id.* at 21, 1766–67. Cryptocurrency can be exchanged “directly person to person, through a cryptocurrency exchange, or through other intermediaries.” *Id.* at 22, 1767. Cryptocurrency is typically stored within a digital “wallet,” which is like a virtual account integrated into the blockchain, and identified by a “wallet address.” *Id.* at 23, 1767. Wallets can generate or store “keys” that are used to send and receive cryptocurrency. *Id.* at 1767. Those keys include public keys, which are analogous to bank account numbers, and private keys, which function like a personal identification number or password. *Id.*

Cryptocurrency users transmit funds between digital wallet addresses, after which the transactions are recorded into “blocks,” or entries on the blockchain’s ledger. *Id.* at 23, 893. Blockchains do not record real names or physical addresses, only the transfers between digital wallets, thus maintaining a degree of anonymity for users. *Id.* If the identity of a wallet owner becomes known, however, that owner’s transactions can be traced. *Id.*

Cryptocurrency can take the form of virtual coins or tokens, both of which are designed using blockchain technology. *Id.* at 22, 729–31. Coins—including Bitcoin, traded on the Bitcoin blockchain, and Ether, on the Ethereum blockchain—are the fundamental (or “native”) medium of exchange on a blockchain, and imitate traditional fiat currencies. *See id.* at 22, 731. Tokens, in contrast, are assets created through software developed on top of a blockchain, which have value and therefore can be bought, sold, and traded. *Id.* In essence, crypto tokens are akin to vouchers or coupons, whereas

crypto coins are more like dollars and cents. *Id.* Tokens can be created and distributed by the project developer for a particular purpose or intended use, so there exist many different kinds of tokens. *Id.* For example, a particular blockchain “protocol”—that is, the set of rules that govern the operation of the blockchain, or some subset of transactions on the blockchain—can provide users with tokens that allow them to store data on the protocol’s network, to access certain benefits, or even to manage the protocol itself. *Id.* at 731–32. Once purchasers obtain tokens, those tokens can be used in accordance with their design limitations. *Id.* at 731.

One important kind of token is a governance token, which can represent a share of ownership or voting rights in a decentralized autonomous organization (“DAO”). *Id.* A DAO is a management structure that allows the holders of governance tokens to vote on organizational decisions. *Id.* at 24, 515. Typically, to form a DAO, a core developer group creates a protocol, layered on top of an existing blockchain, that allows for the distribution of governance tokens to users, backers, and other stakeholders. *See id.* at 515. The protocol often specifies quorum requirements to submit a voting proposal, as well as rules for voting. *See id.* at 517. Each token typically corresponds to a set amount of voting power within the organization, and also corresponds to a variable price on a secondary market, where the token maybe bought and sold. *Id.* Although DAOs often describe themselves as highly decentralized and democratized, *see, e.g., id.* at 1315, the actual governance authority of DAOs is often highly concentrated, *id.* at 515, and the core developer group often remains closely involved in managing, promoting, and proposing changes to the protocol to be voted upon by the DAO, *see, e.g., id.* at 52, 953.

B. Ethereum

Ethereum is a prominent virtual currency blockchain. A.R. 26, 857. A transaction on the Ethereum blockchain generally involves the transfer of Ether (“ETH”)—the native cryptocurrency of the Ethereum blockchain, *id.* at 818—from one account to another, *id.* at 858. An Ethereum account

is a wallet with an ETH balance that can send transactions on the Ethereum blockchain. *Id.* at 506. There are two kinds of Ethereum accounts: (1) “externally owned” accounts, which are effectively wallets that may be controlled by anyone with the corresponding private keys, and (2) “smart contracts,” which are software programs deployed directly onto the Ethereum network, and which may be run by Ethereum users who satisfy the program’s conditions. *Id.* at 507.

Externally owned accounts allow users to initiate transactions for ETH or token transfers. *Id.* When a transaction is initiated from an externally owned account, that request is broadcast to the entire Ethereum network. *Id.* at 858. A person known as a “validator” will then execute the transaction by altering the balances of the sending and receiving accounts according to the request. *Id.* This transaction requires a fee, known as “gas,” paid in ETH in an amount determined by the amount of computation required to complete the transaction request. *Id.* at 818, 858. Upon completion of a transaction, the validator is rewarded by the network with a portion of the gas, for doing the work of verifying and executing the transaction and including the transaction in the next block on the blockchain. *Id.* at 818.

Unlike an externally owned account, a smart contract is computer code that is stored directly on the Ethereum blockchain, and which automatically executes all or parts of an agreement, pursuant to its specifications. *Id.* at 2141. The deployment of a smart contract to the blockchain has a cost, which is exacted in the form of gas. *Id.* Once deployed, authorized users (or other smart contracts) can execute the code. *Id.* The fee for executing a smart contract is determined by the complexity of the smart contract. *Id.*

C. Cryptocurrency Mixers

Cryptocurrency mixing services, known as “mixers” or “tumblers,” are designed to obscure the source or owner of particular cryptocurrency units, thereby allowing users to remain anonymous. A.R. 28, 1805. Criminals often employ mixers to launder stolen cryptocurrency. *See id.* at 1808. A

mixer customer typically directs mixer software to send a certain number of cryptocurrency units to a specific address that is controlled by the mixer, for a fee. *Id.* The mixer then takes the cryptocurrency units from the sender and pools them together with the cryptocurrency of other users (*i.e.*, “mixes” the cryptocurrency) before delivering the specified number of units to the requested destination. *Id.* This renders it difficult to determine the link between a sender and recipient wallet account. *Id.*

Mixers are sometimes operated via smart contracts. *See id.* at 580. To initiate a transaction, a user sends the cryptocurrency to the mixer and, in return, receives a cryptographic “note,” or password, proving that they are the depositor. *Id.* The deposited cryptocurrency is then mixed with cryptocurrency units of other users. *Id.* At a time of the user’s choosing, the user sends the note back to the mixer and withdraws the designated amount to a specified recipient address. *Id.* The withdrawal transaction is typically initiated by the withdrawal wallet address alone, to ensure that no connection can be drawn between sender and recipient. *See id.* at 951. However, because every transaction requires that the account initiating the transaction pay “gas,” the withdrawal account must be pre-funded with Ether to pay that fee. *Id.* Because pre-funding the withdrawal account would allow the source of the pre-existing balance to be traced, transactions are often executed with the aid of service providers called “relayers,” who both provide a fee to the mixer and collect a fee from the depositor, in exchange for initiating the withdrawal transaction. *Id.* Relayers provide an extra layer of anonymity by eliminating the requirement to pre-fund the recipient account. *See id.* at 32, 951.

D. Tornado Cash

As reflected in the administrative record, Tornado Cash is an organization that runs a cryptocurrency mixing service. A.R. 32. Tornado Cash’s organizational structure consists of (1) its

founders Alexey Pertsev,² Roman Semenov, and Roman Storm, as well as other associated developers, who together launched the Tornado Cash mixing service, developed new Tornado Cash mixing service features, created the Tornado Cash DAO, and actively promoted the platform’s popularity; and (2) its DAO, which votes on implementing new features created by the developers. *Id.* The Tornado Cash DAO is made up of users who hold “TORN,” Tornado Cash’s governance token, which is deployed on the Ethereum blockchain. *Id.* at 35–41. TORN gives the holder the right to vote on governance measures and influence the ongoing development and maintenance of the service operated by Tornado Cash. *Id.* Although TORN plays an important governance function, it is also a virtual asset that may be bought and sold on secondary markets, the value of which increases as Tornado Cash increases its user base and popularity. *Id.* at 43–50.

Tornado Cash uses smart contracts, created by its developers and then approved and deployed by the DAO, to provide customers with virtual currency mixing services on multiple blockchains—most prominently the Ethereum blockchain. *Id.* at 51. Certain Tornado Cash smart contracts have been designed to disallow further changes to their code once deployed, by “revoking” the set of users allowed to modify them. *See id.* at 61, 564. Nonetheless, Tornado Cash often develops new smart contracts to update its service, and the older smart contracts become inoperative. *See id.* at 61, 570. On Ethereum, Tornado Cash smart contracts accept ETH (and other coins and tokens) into their smart contract wallets and allow users to withdraw their ETH to a different address. *Id.* Tornado Cash relies on a critical mass of users concurrently depositing and withdrawing transactions to obfuscate links between deposit and withdrawal addresses. *Id.* at 53–56. Because Tornado Cash

² After OFAC’s designation in August 2022, Alexey Pertsev was arrested by Dutch authorities on charges of facilitating money laundering. *See* FIOD Belastingdienst, *Arrest of Suspected Developer of Tornado Cash* (Aug. 12, 2022), <https://www.fiod.nl/arrest-of-suspected-developer-of-tornado-cash>.

transactions are initiated by the withdrawal account, those accounts must be pre-funded with ETH in order to pay the “gas.” *See id.* at 951.

Tornado Cash collects fees through its relayers, third parties who have agreed to provide an extra layer of anonymity enhancement to avoid the need for users to pre-fund a recipient account. *Id.* at 56–60 & n.113, 951. Nearly eighty-four percent of Tornado Cash transactions use relayers. *Id.* at 57 n.113; *see also* ECF No. 72-1. Relayers withdraw funds from the Tornado Cash pool on a user’s behalf, to further obscure the source of funds. A.R. 56. Tornado Cash maintains a registry of available relayers, which is deployed to the blockchain in the form of a smart contract. *Id.* For a relayer to be listed on that registry, the relayer must “stake”—that is, deposit—TORN into Tornado Cash’s governance smart contract. *Id.* Tornado Cash collects a fee from the relayer for transactions processed by the relayer, and it distributes those fees to members of the Tornado Cash DAO by reallocating a portion of the relayer’s staked TORN as rewards for its DAO members. *Id.* The relayer, in turn, collects a fee from users of Tornado Cash for every transaction they facilitate, and pay the gas to Ethereum on the users’ behalf. *Id.*

E. OFAC’s Designation of Tornado Cash

On August 8, 2022, OFAC designated Tornado Cash pursuant to E.O. 13694, as amended. *See* Press Release, U.S. Dep’t of the Treasury, U.S. Treasury Sanctions Notorious Virtual Currency Mixer Tornado Cash, <https://perma.cc/AY3X-Z8JG>. The accompanying press release explained that Tornado Cash “indiscriminately facilitates anonymous transactions by obfuscating their origin, destination, and counterparties, with no attempt to determine their origin.” *Id.* OFAC noted that illicit actors often use mixing services like Tornado Cash to launder funds. *Id.* Indeed, the press release revealed that Tornado Cash has laundered hundreds of millions of dollars’ worth of virtual

currency since its creation in 2019, including hundreds of millions of dollars for the Lazarus Group, a North Korean state-sponsored hacking group. *Id.*

On November 8, 2022, OFAC rescinded its original designation and simultaneously redesignated Tornado Cash pursuant to E.O. 13694, as amended, and E.O. 13722, to include an additional basis for the designation regarding its DPRK activities, and to consider additional information. *See* A.R. 13–100; *see also* Press Release, U.S. Dep’t of the Treasury, Treasury Designates DPRK Weapons Representatives: Tornado Cash Redesignated with Additional DPRK Authorities, New OFAC Guidance, <https://perma.cc/TGD5-8MXH>.

In support of this designation, OFAC determined that Tornado Cash materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of, an activity described in section 1(a)(ii) of E.O. 13694, as amended. A.R. 67–73. OFAC established that the online theft of more than \$600 million in cryptocurrency, the so-called Sky Mavis–Ronin Bridge Heist, constituted a cyber-enabled activity covered by section 1(a)(ii) of E.O. 13694. *Id.* at 67–71. In that heist, the Lazarus Group stole more than \$600 million in ETH from a blockchain project linked to a popular online game operated by Sky Mavis, a Vietnam-based company, and it used Tornado Cash to launder the illicit proceeds. *Id.* OFAC determined that the DPRK’s malicious cyber-enabled activities, such as the Sky Mavis–Ronin Bridge Heist, threaten the United States and the broader international community and, in particular, pose a significant threat to the international financial system. *Id.* at 70. OFAC also observed that the DPRK has increasingly relied on cybercrime to generate revenue for its weapons of mass destruction and ballistic missile programs. *Id.* Next, OFAC established that because the Lazarus Group used Tornado Cash to launder the illicit proceeds from the Sky Mavis–Ronin Bridge Heist, Tornado Cash provided support to an activity described in section 1(a)(ii) of E.O. 13694, as amended. *Id.* at 71–73. Specifically, OFAC explained that the main

ETH address used by the Lazarus Group to conduct the heist sent 2,001 ETH to another ETH address, which in turn sent 2,000 ETH in batches of 100 ETH to Tornado Cash. *Id.* at 60–61.

OFAC also designated Tornado Cash for having materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of, the Government of North Korea, pursuant to section 2(a)(vii) of E.O. 13722. *Id.* at 73–76. OFAC first determined that the Lazarus Group constituted an agency, instrumentality, or controlled entity of the Government of North Korea based on its relationship with the Reconnaissance General Bureau, North Korea’s primary intelligence bureau. *Id.* at 73. And, as discussed above, Tornado Cash facilitated the laundering of the \$600 million proceeds from the Sky Mavis–Ronin Bridge Heist conducted by the Lazarus Group. *Id.* at 76. Further, OFAC established that Tornado Cash facilitated the laundering of monies from another virtual currency theft of \$100 million, referred to as the Harmony Heist. *Id.* at 75–76.³ The Lazarus Group is also suspected in this heist. *Id.*

F. OFAC’s Issuance of Guidance through FAQs

Along with its designation of Tornado Cash, OFAC issued several FAQs, available on its website, to inform the public regarding the scope of the designation. For example, FAQ 1079 announced OFAC’s position with respect to individuals who had funds still held in Tornado Cash smart contracts after the designation. *See* OFAC, *Frequently Asked Questions: Cyber-Related Sanctions*, <https://perma.cc/5KQ5-25GE> (updated Nov. 8, 2022) (“OFAC FAQ”). OFAC explained that individuals may request a specific license that would allow the retrieval of the funds and that “OFAC would have a favorable licensing policy towards such applications, provided that the transaction did not involve other sanctionable conduct.” *Id.* At the outset of this litigation, government counsel sent

³ Further material facts supporting the designation, which are properly classified, are included in the classified supplement to the administrative record, which will be lodged at the conclusion of the parties’ briefing through the Department of Justice’s Litigation Security Group.

Plaintiffs’ counsel a letter informing them of the FAQ and of the opportunity to seek a such a license. *See* Letter from Stephen M. Elliott, Senior Counsel, U.S. Department of Justice to Kannon K. Shanmugam, Partner, Paul Weiss Rifkind, Wharton & Garrison LLP (Sept. 28, 2022) (“Letter to Paul Weiss”), *attached as* Exhibit A.

FAQ 1078 addressed the practice of “dusting,” that is, the unsolicited receipt of crypto assets from Tornado Cash smart contracts. *See* OFAC *FAQ*. OFAC explained that although, “[t]echnically, OFAC’s regulations would apply to these transactions . . . OFAC will not prioritize enforcement against” persons who receive such funds, unless these “dusting” transactions have some other sanctions nexus besides Tornado Cash. *See id.* OFAC also noted that “[p]ersons who received a ‘dusting’ transaction can also apply to OFAC for a specific license.” *Id.*

FAQ 1076 addressed the scope of conduct prohibited by the sanctions. *See id.* OFAC explained that “[w]hile engaging in any transaction with Tornado Cash or its blocked property or interests in property is prohibited for U.S. persons, interacting with open-source code itself, in a way that does not involve a prohibited transaction with Tornado Cash, is not prohibited.” *Id.* For example, “U.S. persons would not be prohibited by U.S. sanctions regulations from copying the open-source code and making it available online for others to view, as well as discussing, teaching about, or including open-source code in written publications, such as textbooks, absent additional facts.” *Id.*

III. Procedural Background

On September 8, 2022, Plaintiffs initiated the instant case in the Western District of Texas, Waco Division, challenging OFAC’s original designation of Tornado Cash.⁴ *See* Compl., ECF No. 1. Plaintiffs—who assert that they are United States citizens and residents of various states—allege that

⁴ Over Plaintiffs’ objection, Defendants moved to have the case transferred to the Austin Division from the Waco Division, which that court granted. *See* R. & R., ECF No. 28; Order Adopting Magistrate Judge’s R. & R., ECF No. 35.

they have used Tornado Cash on the Ethereum blockchain in the past and/or wish to do so in the future. *Id.* ¶¶ 15, 18, 22, 26, 30, 33. Three of the Plaintiffs also allege that they have ETH “locked in Tornado Cash smart contracts” because of the OFAC designation. *Id.* ¶¶ 20, 27. Plaintiffs advanced three claims in the initial complaint: (1) Defendants acted contrary to law in violation of the Administrative Procedure Act (“APA”) because Tornado Cash does not constitute “property,” a “foreign country or a national thereof,” or a “person,” *id.* ¶¶ 66–69; (2) Defendants violated the First Amendment because Plaintiffs can no longer use Tornado Cash to “engage in important, socially valuable speech,” such as making donations to political and social causes, *id.* ¶¶ 70–73; and (3) Defendants violated certain Plaintiffs’ Fifth Amendment rights because they were not afforded pre-deprivation notice prior to their ETH being blocked in Tornado Cash smart contracts as a result of the designation, *id.* ¶¶ 74–78.

Plaintiffs filed an amended complaint on November 22, 2022, in response to the November 8, 2022 revised designation. *See* Am. Compl., ECF No. 21. Plaintiffs asserted the same three claims, *i.e.*, that OFAC’s designation of Tornado Cash violated the APA, Plaintiffs’ First Amendments rights, and the Fifth Amendment rights of several Plaintiffs. *Id.* ¶¶ 79–95.

Pursuant to the parties’ scheduling agreement, Plaintiffs filed their Motion for Partial Summary Judgment on April 5, 2023. *See* Br. in Support of Pls.’ Mot. for Partial Summ. J. (“Pls.’ Mot.”), ECF No. 41-1. First, Plaintiffs contend that OFAC’s designation of Tornado Cash violated the APA because it does not constitute a foreign national or a person, arguing that Tornado Cash is merely “open-source software code.” *Id.* at 13–17. Plaintiffs also contend that Defendants ran afoul of the APA because the smart contracts identified by OFAC do not constitute property, and Tornado Cash does not have an interest in the property represented by the smart contracts. *Id.* at 16–22. Second, Plaintiffs assert that Defendants violated the Free Speech Clause of the First Amendment by designating Tornado Cash. *Id.* at 22–24. Plaintiffs contend that the designation of Tornado Cash is

not narrowly tailored to address a compelling interest because “only a small fraction” of Tornado Cash customers use the service for illicit purposes. *Id.* at 22–23. Plaintiffs also argue that the action is unconstitutionally overbroad because “[t]housands of law-abiding American citizens” have been denied the ability to use Tornado Cash “to engage in socially valuable speech.” *Id.* at 23. Plaintiffs do not seek summary judgment on their Fifth Amendment claim, though they offer no explanation for not including it, so it appears to have been abandoned.⁵ Particularly in an APA case like this one, where all parties have agreed to resolve the case on cross-motions for summary judgment, failure to move for summary judgment on a claim may constitute waiver. *See e.g., Armenta v. Chatman*, 371 F. App’x 452, 455 (5th Cir. 2010) (in a suit against prison officials, where the Plaintiff “failed to raise [an] issue in his motion for summary judgment . . . [he] therefore waives it”); *Weaver v. Basic Energy Servs., L.P.*, No. MO-13-CV-022, 2014 WL 12513180, at *2 (W.D. Tex. Jan. 8, 2014), *aff’d*, 578 F. App’x 449 (5th Cir. 2014) (“[W]hen a plaintiff fails to pursue a claim or defense beyond the party’s initial complaint, the claim is deemed abandoned.”); *Stop B2H Coal. v. Bureau of Land Mgmt.*, 552 F. Supp. 3d 1101, 1113 n.3 (D. Or. 2021) (plaintiffs “failed to address . . . claims in their opening [summary judgment] brief and thus waived them”).

⁵ Four amici have sought leave to file briefs in support of Plaintiffs’ motion. Three briefs were timely filed, and Defendants objected to the fourth on timeliness grounds. *See* ECF Nos. 67, 56, 61. Several of the amicus briefs include arguments on issues and claims that are not at issue in this case, or in Plaintiffs’ motion. *See, e.g.,* Br. of Blockchain Association and DeFi Education Fund as *Amici Curiae* at 14–17, ECF No. 49 (raising arbitrary and capricious and due process challenges not at issue); Proposed Br. of Electronic Frontier Foundation as *Amicus Curiae* at 9–10, ECF No. 70-1 (raising First Amendment vagueness challenge not at issue). Such assertions by amici are not appropriate, and the Court should disregard these efforts to interject new issues and claims into the briefing. *See, e.g., Edison Elec. Inst. v. OSHA*, 849 F.2d 611, 625 (D.C. Cir. 1988) (new claims are “not properly raised in an amicus brief”); *Eldred v. Ashcroft*, 255 F.3d 849, 851 (D.C. Cir. 2001) (collecting cases); *United States v. Sturm, Ruger & Co.*, 84 F.3d 1, 6 (1st Cir. 1996) (similar); *Russell v. Bd. of Plumbing Examiners*, 74 F. Supp. 2d 349, 351 (S.D.N.Y. 1999), *aff’d*, 1 F. App’x 38 (2d Cir. 2001) (similar). Should amici wish to raise new claims, they may file their own suit.

STANDARD OF REVIEW

“Summary judgment is [the] appropriate procedure for resolving a challenge to a federal agency’s administrative decision when review is based upon the administrative record, even though the Court does not employ the standard of review set forth in the rule governing summary judgment motions.” *Larson v. Geren*, No. SA-08-CA-722-FB, 2010 WL 11542078, at *4 (W.D. Tex. Apr. 14, 2010) (internal quotation marks omitted), *aff’d*, 432 F. App’x 356 (5th Cir. 2011). When judicial review is sought under 5 U.S.C. § 706, “the focal point for judicial review should be the administrative record already in existence, not some new record made initially in the reviewing court.” *Camp v. Pitts*, 411 U.S. 138, 142 (1973) (per curiam).

The APA directs that a “court shall review the whole record or those parts of it cited by a party.” 5 U.S.C. § 706. In APA cases, “[e]vidence cannot be submitted in the reviewing court and the parties are bound by the evidence in the administrative record.” *Redmond v. United States*, 507 F.2d 1007, 1011 (5th Cir. 1975). As relevant here, an agency action may not be set aside unless it is “arbitrary” and “capricious,” “not in accordance with law,” or “unsupported by substantial evidence.” 5 U.S.C. § 706; *see also Holy Land Found. for Relief & Dev. v. Ashcroft* (“*Holy Land II*”), 333 F.3d 156, 162 (D.C. Cir. 2003) (applying these standards to an OFAC designation). In such cases, “a reviewing court is bound by the findings of the administrative agency if those findings are supported by substantial evidence on the administrative record as a whole.” *Redmond*, 507 F.2d at 1011. “The agency’s decision does not have to be ideal so long as the agency gave at least minimal consideration to relevant facts contained in the record.” *Wright v. United States*, 164 F.3d 267, 268–69 (5th Cir. 1999) (per curiam).

ARGUMENT

I. Tornado Cash Is an Entity That May Be Designated.

OFAC’s designation recognizes Tornado Cash for what it is: an online organization that provides a for-profit money laundering service. *See* A.R. 16, 44–51. To Plaintiffs, however, Tornado

Cash is immune from sanctions because it is a non-entity—a mere “open-source software project” that publishes an immutable “privacy tool” to the Ethereum blockchain. Pls.’ Mot. at 5, 7. From that perspective, any entity or person could avoid U.S. sanctions merely by adopting decentralized blockchain governance. But, despite layers of purported “decentralization” designed to insulate Tornado Cash from regulatory oversight and accountability, it is fundamentally a group of individuals organized to function collectively for a common purpose, and is thus an “entity” that OFAC may properly designate under IEEPA. Tornado Cash has a well-defined organizational structure that allows it to act in a coordinated manner to operate and update its mixing service, and to make money in the process, just as a formally incorporated entity would. *See* A.R. 16–17.

OFAC’s sanctions authority extends to transactions “by any person, or with respect to any property, subject to the jurisdiction of the United States.” 50 U.S.C. § 1702(a)(1)(B). Pursuant to these authorities, the relevant executive orders allow for the designation of “any person” subject to the terms of those orders. *See* E.O. 13,722, § 2(a)(vii); E.O. 13,757, § 1(a)(ii), (iii)(B). Under the relevant executive orders and regulations, a “person” means an “individual or entity,” and an “entity” is in turn defined broadly to include “a partnership, association, trust, joint venture, corporation, group, subgroup, or other organization.” *See* 31 C.F.R. §§ 510.305, 510.322, 578.305, 578.313. Plaintiffs do not purport to challenge the content of these regulatory definitions.⁶ And, in any event,

⁶ Plaintiffs’ argument that OFAC exceeded its statutory authority appears to incorrectly focus on whether Tornado Cash is a foreign “national” under IEEPA, and appears to examine the word “person” only in the context of NKSPEA (upon which OFAC did not rely, *see supra* at 5 n.1), while ignoring the word “person” in IEEPA and the executive orders altogether. *See* Pls.’ Mot. at 12. This conflates IEEPA’s personhood requirement with its foreign-nexus requirement. *See* 50 U.S.C. § 1702(a)(1)(B) (allowing OFAC to block “property in which any foreign country or a national thereof has any interest”). As the Evidentiary Memorandum reflects, the foreign-nexus requirement is distinct from whether the designated target is a “person.” *Compare* A.R. 32–43 (establishing that Tornado Cash is an entity), *with id.* at 64–67 (establishing that foreign nationals have an interest in Tornado Cash’s blocked property interests). OFAC may block or prohibit even domestic transactions where a foreign country or national thereof has an interest in the underlying property. *Id.* at 64 n.126 (quoting and explaining the meaning of IEEPA, 50 U.S.C. § 1702(a)(1)(B)); *Global Relief Found., Inc. v. O’Neill*

OFAC's interpretation of its regulations receives heightened deference in light of the extraordinarily sensitive national security and foreign policy implications of OFAC's sanctions programs. *See, e.g., Consarc Corp. v. Iraqi Ministry* (“*Consarc I*”), 27 F.3d 695, 701–02 (D.C. Cir. 1994) (OFAC's application of its own regulations “receives an even greater degree of deference than the *Chevron* standard, and must prevail unless plainly inconsistent with that regulation”); *Consarc Corp. v. OFAC* (“*Consarc II*”), 71 F.3d 909 (D.C. Cir. 1995) (finding that a challenge to OFAC's interpretation of its own regulation must demonstrate either that the statute clearly forbids the agency's interpretation or that the interpretation is unreasonable); *Karadzic v. Gacki*, 602 F. Supp. 3d 103, 111–12 (D.D.C. 2022) (the “informed perspective of *the Executive Branch* [is what] matters” when interpreting the meaning of terms found in OFAC's sanctions authorities (internal quotation marks omitted, and emphasis in original)); *Olenga v. Gacki*, 507 F. Supp. 3d 260, 280 (D.D.C. 2020) (“The D.C. Circuit has shown extreme deference to [OFAC] blocking orders, which fall at the intersection of national security, foreign policy, and administrative law.” (internal quotation marks omitted)); *Holy Land Found. for Relief & Dev. v. Ashcroft* (“*Holy Land I*”), 219 F. Supp. 2d 57, 84 (D.D.C. 2002) (OFAC's orders are “an important component of U.S. foreign policy, and the President's choice of this tool . . . is entitled to particular deference.”), *aff'd*, “*Holy Land II*”, 333 F.3d 156.

The applicable definition of “entity” is not limited to corporations and other traditional forms; it is by its terms broad and flexible, encompassing any type of “association,” “group,” or “other organization,” however constituted. *See* 31 C.F.R. §§ 510.305, 510.322, 578.305, 578.313. Tornado

(“*Global Relief I*”), 207 F. Supp. 2d 779, 793 (N.D. Ill. 2002) (“the powers granted to the President under IEEPA include the ability to block purely domestic assets of a U.S. person” where a foreign national has an interest in the underlying property), *aff'd* (“*Global Relief II*”), 315 F.3d 748 (7th Cir. 2002).

Cash easily fits within the scope of these terms.⁷ Where regulatory terms are “neither unusual, scientific, nor words of art,” it is appropriate to apply their “ordinary meaning.” *Whirlwind Mfg. Co. v. United States*, 344 F.2d 153, 156 (5th Cir. 1965); *see Shah v. Azar*, 920 F.3d 987, 994 n.22 (5th Cir. 2019) (“[W]e should assume that the ordinary meaning of the regulation’s language expresses its purpose and enforce it according to its terms.” (internal quotation marks omitted)). Here, the ordinary meanings of these undefined terms all demonstrate that OFAC need only show (1) that Tornado Cash consists of an organized body of individuals, and (2) that this body furthers a common purpose. *See Organization*, 4.a, Oxford English Dictionary Online (3d ed. 2022), <https://www.oed.com/view/Entry/132452> (an “organization” is “[a]n organized body of people with a particular purpose”); *Association*, 2, *id.*, <https://www.oed.com/view/Entry/11981> (an “association” is “[a] body of persons who have combined to execute a common purpose or advance a common cause”); *Group*, 3.a, *id.*, <https://www.oed.com/view/Entry/81855> (a “group” is “[a] number of people who associate together . . . or who are linked by a common interest or purpose”).

Tornado Cash meets both of these elements. As the Evidentiary Memorandum describes, the body of individuals that makes up this entity is constituted by (1) its founders and developers, who launched the mixing service, developed new features, created the Tornado Cash DAO, and actively promote the platform’s popularity to increase its user base; and (2) its DAO, or “decentralized autonomous organization,” which is responsible for governing the platform, including voting on and implementing new features created by the developers. A.R. 1, 16, 32. It is no coincidence that the “O” in DAO stands for “*organization*”—as the name reflects, a DAO is a “democratized management

⁷ Tornado Cash may also be a “partnership.” *See, e.g., Sarcuni v. bZx DAO*, No. 22-cv-618, 2023 WL 2657633, at *6 (S.D. Cal. Mar. 27, 2023) (holding that a DAO could be subject to partnership liability, in light of California corporations law that “unless persons associated to do business together establish a formal entity like a corporation, the association is deemed to be a partnership regardless of the parties’ intent” (internal quotation marks omitted)).

structure” that allows large groups of people to efficiently coordinate their operations toward a common purpose. *See id.* at 24. Indeed, this structure is more formalized than the structure of many other entities OFAC has long designated, like Al-Qaeda and other terrorist groups, whose status as “groups” or “organizations” has never been seriously questioned.

In this way, Tornado Cash’s organizational structure “in many ways mimics common corporate structures: its founders and developers operate like a board of directors, while its DAO members operate like stockholders.” *Id.* at 17, 35, 61. Co-founder Roman Semenov has echoed the same sentiment; he explained that the “Tornado Cash team”—*i.e.*, the founders and developers—“do[] research and publish[] the code to GitHub” (an open-source software editing website), while “the community via Tornado Governance”—*i.e.*, the DAO—is responsible for “deployments, protocol changes, and important decisions.” *Id.* at 39. This bifurcated structure—a core developer group, supported by a DAO—has become a common organizational form among blockchain organizations in recent years. *See id.* at 1314, 515 (Ethereum webpage explaining that a DAO is “like an internet-native business that’s collectively owned and managed by its members”).

Tornado Cash’s structure has allowed it to take “concrete and coordinated steps to deploy, manage, promote, and profit from the Tornado Cash mixing service,” including by (1) placing job advertisements, *id.* at 17; (2) maintaining a treasury, or “community fund,” from which it offers developers rewards for improving its code, *id.* at 41–43; (3) organizing code deployment ceremonies, wherein participants play a role in making changes to the service, *id.* at 39; (4) refining its protocol to enhance anonymity, *id.* at 35; and (5) adopting a compensation structure through “relayer” payments, *id.* at 60–64. These actions sufficiently demonstrate that Tornado Cash is an organized body of individuals that operates in concert, taking the same sorts of actions one would expect from a formally incorporated entity. Accordingly, Tornado Cash is a functional entity that is properly subject to sanctions under IEEPA.

Plaintiffs assert that OFAC cannot treat Tornado Cash as an entity in the absence of evidence that every holder of TORN tokens “*manifested an agreement* to advance” Tornado Cash’s goals. Pls.’ Mot. at 15 (emphasis added). In their view, because some narrow subset of TORN token holders has not necessarily agreed to participate in Tornado Cash governance, the entire enterprise is therefore a nullity that falls beyond OFAC’s reach. *See id.* But a corporation is still an entity even if many stockholders never intend to vote at a shareholder meeting, and few stockholders of public companies ever do. The same is true of an unincorporated entity like Tornado Cash. What matters is that the TORN tokens, like stock, structure the relationship between the individuals who own them and facilitate the group’s collective action.

Plaintiffs’ preferred “manifestation” test appears to derive from cases examining whether an “unincorporated association” has the capacity to sue or be sued under Federal Rule of Civil Procedure 17(b)(3).⁸ *See* Pls.’ Mot. at 14 (citing, *inter alia*, *S. Cal. Darts Ass’n v. Zaffina*, 762 F.3d 921, 927 (9th Cir. 2014)). First, this inquiry is irrelevant; Tornado Cash is not a party to this suit, putatively or otherwise. Second, whether an unincorporated association has capacity to sue or be sued typically depends on the “law of the state where the court is located” and the nature of the underlying claim. Fed. R. Civ. P. 17(b)(3); *see Busby v. Elec. Utils. Emps. Union*, 323 U.S. 72, 73 (1944). OFAC’s sanctions authority does not vary by state or by claim. Indeed, in certain states “unincorporated associations” are only those groups joined together “for a common *lawful* purpose,” *see, e.g.,* Cal. Corp. Code § 18035(a) (emphasis added), while OFAC designations often target entities pursuing *unlawful* purposes—hacker

⁸ Before pivoting to this “manifestation” test, Plaintiffs also briefly state that “association-in-fact” under the Racketeer Influenced and Corrupt Organizations Act (RICO) is “a group of persons associated together for a common purpose of engaging in a course of conduct.” *See* Pls.’ Mot. at 14 (quoting *Boyle v. United States*, 556 U.S. 938, 944 (2009)). Like their Rule 17(b) discussion, this is an irrelevant analogy to an inapposite area of law. Notably, however, this test does *not* appear to include Plaintiffs’ favored “manifestation” requirement, and would even appear to include Tornado Cash users who are gathered together to use the services Tornado Cash provides.

collectives, terrorist groups, drug traffickers, and so forth, *see infra* n.10. Importing Rule 17(b)’s “unincorporated association” analysis to determine whether an entity may be subject to sanctions could thus undermine a wide array of OFAC designations.

And even if Rule 17(b) were relevant, case law demonstrates that DAOs *can* be competent parties subject to suit under that rule, even where the relevant state law mirrors Plaintiffs’ favored “manifestation” test. *See, e.g., Commodity Futures Trading Comm’n v. Ooki DAO*, No. 3:22-cv-5416, 2022 WL 17822445, *6 (N.D. Cal. Dec. 20, 2022) (holding that a DAO structured much like the Tornado Cash DAO was an “unincorporated association” under California law—*i.e.*, a group “joined by mutual consent for common lawful purpose,” Cal. Corp. Code § 18035(a)—and consequently could be sued). Regardless, the Court should reject Plaintiffs’ constrained and irrelevant Rule 17(b) analysis. It should instead resolve the question of whether Tornado Cash is an “entity” based on the substantial evidence in OFAC’s memorandum, as discussed above, and with reference to the broad definition of that term provided in OFAC’s regulations. *See* 31 C.F.R. §§ 510.305, 578.305.

Beyond urging application of an inapposite standard, Plaintiffs conflate *whether* Tornado Cash is an entity with precisely *which* individuals form part of the entity’s governance. *See* Pls.’ Mot. at 15 (objecting to the assertion that the designated entity “includes anyone who holds TORN”). The latter question is not relevant—OFAC would never be required, for example, to identify every Al-Qaeda operative to demonstrate that Al-Qaeda was an entity that could be sanctioned. It need only provide “substantial evidence” that the entity exists. *See supra* at 17–18 (std. of review). This confusion seems to explain Plaintiffs’ citations to several cases examining whether individual members should be held liable for the actions of unincorporated organizations. *See, e.g.,* Pls.’ Mot. at 14 (citing *Karl Rove & Co. v. Thornburgh*, 39 F.3d 1273, 1289 (5th Cir. 1994) (political candidate was liable for the actions of an unincorporated campaign committee); *Heinold Hog Market, Inc. v. McCoy*, 700 F.2d 611, 615 (10th Cir. 1983) (individual could be subject to contempt for failure to comply with subpoena issued to

organization)). Because this question of individual liability is not posed here, these cases are at best unrelated (and may in fact undermine Plaintiffs' case, *see, e.g., Heinold*, 700 F.2d at 616–17 (requiring individual to respond to the subpoena “is particularly justified” where the organization is “designed to operate in secrecy, to leave no paper trail, and to avoid service of process”)).

In an attempt to reason by analogy, Plaintiffs contend that the Tornado Cash DAO is like a “Taylor Swift Fan Club” whose membership is made up of a seemingly random group of “millions of Americans” who happen to receive an email asking them to choose the next president of the club. Pls.' Mot. at 15. But this line of reasoning fails to advance their argument. There are obvious differences between (1) TORN tokens—which are assets that may be bought and sold like stocks—and (2) unsolicited emails. Most notably, this analogy focuses on whether the email recipients are club members, when the relevant question should be whether the group sending the emails is an “entity.” Plaintiffs' hypothesized Taylor Swift Fan Club, organizing the election of its president through email polling, might very well be an entity properly subject to sanctions if it provided money-laundering services to North Korea.

Plaintiffs additionally contend that “[i]t is incoherent to designate a group of people while taking the unprecedented step of explicitly excising the people who supposedly constitute that group.” Pls.' Mot. at 16. But OFAC did not “excise” anyone from the defined entity; it chose to designate the Tornado Cash entity without concurrently designating individuals that comprise the entity. There is nothing unprecedented or even uncommon about that: if OFAC designates a corporation, it need not separately designate each of its officers, directors, shareholders, or employees.⁹ The same is true when designating an unincorporated entity, and Plaintiffs provide no reason to think otherwise. Indeed,

⁹ The inverse is also true. *See, e.g., Exxon Mobil Corp. v. Mnuchin*, 430 F. Supp. 3d 220, 226 (N.D. Tex. 2019) (discussing OFAC designation of a corporate official without designating the corporation).

although Plaintiffs assert that they are unaware of any such designation, *id.*, OFAC often designates unincorporated entities without designating the individuals who operate them, including cyber networks and criminal organizations.¹⁰

For all of these reasons, Tornado Cash is an “entity,” and therefore a “person” that may be designated under IEEPA.¹¹

II. Tornado Cash Has a Property Interest in Its Smart Contracts.

Tornado Cash’s entire business model revolves around its smart contracts. Effectively, they are blockchain-enabled money-laundering machines, available for hire, that Tornado Cash developed, tested, deployed, and profits from. These machines have the clever feature that, once deployed, they cannot be modified or deleted (at least, not without fundamental changes to the Ethereum network itself). When a smart contract’s code needs improvement, however, Tornado Cash merely builds a new one, and uses that one instead. A.R. 33, 39, 41. The old contract technically remains somewhere

¹⁰ See, e.g., Press Release (Dec. 5, 2019), <https://perma.cc/4EAQ-N87R> (designating Evil Corp hacker group); Press Release (Nov. 8, 2021), <https://perma.cc/ZZ5J-J865> (designating ransomware operators); Press Release (Apr. 5, 2022), <https://perma.cc/9LPM-AVVZ> (designating Hydra darknet marketplace and Garantex currency exchange); Press Release (May 6, 2022), <https://perma.cc/F3MQ-38KR> (designating Blender.io cryptocurrency mixer); Press Release (Apr. 5, 2023), <https://perma.cc/T8WW-Q2KA> (designating Genesis darknet marketplace).

¹¹ Amici curiae the Blockchain Association and DeFi Education Fund argue that the Court should ignore the regulatory definition of “entity” and instead require evidence of “separate and distinct existence” under a dictionary definition. See ECF No. 49 at 12. Reliance on dictionary definitions is inappropriate where a term is defined in statute or regulation. See, e.g., *Streber v. Hunter*, 221 F.3d 701, 722 (5th Cir. 2000) (rejecting a dictionary definition for “a term of art defined by the tax code”). In any event, amici would require “contemporaneous evidence proving the existence of such an organization; pointing to any kind of contractual relationship between the developers and DAO; or suggesting that the public perceived them as intertwined.” ECF No. 49 at 12–13. They provide no support for the notion that contracts or public perception evidence are required to designate an entity. To the contrary, many sanctioned entities, like Tornado Cash, are groups little known to the general public and with no formal charter. See *supra* n.10. Even so, as described above, the record is full of evidence that Tornado Cash saw itself as an organized “community” acting in concert. See, e.g., *supra* at 21 (statement of co-founder Roman Semenov describing distribution of labor between DAO and developers); A.R. 39. This evidence is more than sufficient to meet the APA’s substantial-evidence standard.

on the blockchain, but it is disconnected from Tornado Cash’s public interface (its “DApp”) and rendered all but useless without Tornado Cash’s anonymity-enhancing user crowd. *See id.* at 570. Tornado Cash actively promotes its smart contracts to increase its user base, because the more people who use them, the more concealed the transactions become and the more money Tornado Cash makes. More smart contract users means more “relayer” transactions that transfer fees to the Tornado Cash DAO; more users also increases the value of TORN, Tornado Cash’s tradeable governance token. *Id.* at 60–64. This forms the backbone of Tornado Cash’s business model.

Plaintiffs contend that none of this amounts to a property interest. Pls.’ Mot at 16. Because the core smart contracts are immutable, they say, they are “incapable of being owned,” and cannot be blocked property. *Id.* But the fact that something is immutable bears no relation to whether it is property. By Plaintiffs’ view, any group could insulate itself from sanctions merely by transferring its assets and beneficial interests to immutable blockchain technology. In reality, the smart contracts are self-executing unilateral contracts that provide a steady stream of benefits to Tornado Cash—indeed, Tornado Cash specifically designed them to do just that. Tornado Cash has a property interest in those contracts.

A. The Smart Contracts Are Property.

Plaintiffs’ threshold argument is that the smart contracts are not property at all—not Tornado Cash’s, not anyone’s. *See* Pls.’ Mot. at 16–18. Indeed, they contend that the smart contracts are incapable of being owned, like the weather. *See id.* at 21. In their view, any benefit accruing to Tornado Cash was merely the result of good business positioning. *Id.*

This argument is wrong in myriad ways: it effectively ignores the existence of qualified property interests, and it fails to meaningfully contend with the plain language of the statute and the numerous cases that have interpreted its meaning expansively. *See* 50 U.S.C. § 1702(a)(1)(B) (authorizing the blocking of property in which the designated foreign national or country has “any

interest” (emphasis added)); *see also, e.g., Holy Land I*, 219 F. Supp. 2d at 67–68; *Holy Land II*, 333 F.3d at 162. Moreover, Plaintiffs ignore fundamental facts about the smart contracts, which, unlike the weather, contain code that automatically transfers fee revenue to Tornado Cash (and to Ethereum, and to relayers) when certain conditions are satisfied.¹²

OFAC’s regulations explicitly and expansively define the terms “property” and “interest in property”:

The terms *property* and *property interest* include money, checks, drafts, bullion, bank deposits, savings accounts, debts, indebtedness, obligations, notes, guarantees, debentures, stocks, bonds, coupons, any other financial instruments, bankers acceptances, mortgages, pledges, liens or other rights in the nature of security, warehouse receipts, bills of lading, trust receipts, bills of sale, any other evidences of title, ownership, or indebtedness, letters of credit and any documents relating to any rights or obligations thereunder, powers of attorney, goods, wares, merchandise, chattels, stocks on hand, ships, goods on ships, real estate mortgages, deeds of trust, vendors’ sales agreements, land contracts, leaseholds, ground rents, real estate and any other interest therein, options, negotiable instruments, trade acceptances, royalties, book accounts, accounts payable, judgments, patents, trademarks or copyrights, insurance policies, safe deposit boxes and their contents, annuities, pooling agreements, *services of any nature whatsoever, contracts of any nature whatsoever, and any other property, real, personal, or mixed, tangible or intangible, or interest or interests therein, present, future, or contingent.*

31 C.F.R. §§ 510.323, 578.314 (emphasis added). The regulations define the word “interest,” in turn, to mean “an interest of *any nature whatsoever*, direct or indirect,” *id.* (emphasis added), which includes interests that are not legally enforceable, *see Holy Land I*, 219 F. Supp. 2d at 67–68 (collecting cases and concluding that “IEEPA does not limit the President’s blocking authority to the existence of a legally enforceable interest”); *Regan*, 468 U.S. at 224, 225–26, 233–34 (repeatedly recognizing that the phrase “any interest” should be construed broadly). Plaintiffs ignore these regulatory definitions—which they do not purport to challenge—in favor of dictionary definitions, *see* Pls.’ Mot. at 16–17, even

¹² To use Plaintiffs’ analogy, a power company may not have a property interest in the weather, but it surely has a property interest in wind turbines or solar arrays, which is effectively what the smart contracts are to Tornado Cash.

though reliance on dictionaries is inappropriate where a term is explicitly defined in statute or regulation. *See, e.g., Streber*, 221 F.3d at 722 (rejecting a dictionary definition for “a term of art defined by the tax code”). As discussed above, *see supra* at 19, courts have repeatedly given heightened deference to OFAC’s interpretation of its authorities in light of their importance to highly sensitive matters of national security and foreign affairs.

As the moniker “smart *contract*” implies, Tornado Cash’s smart contracts fall well within the regulatory definition of “property.” Most obviously, they are “contracts of any nature whatsoever,” because they are code-enabled unilateral contracts. *See, e.g., Wells Fargo Bank, N.A. v. United States*, 88 F.3d 1012, 1019 (Fed. Cir. 1996) (“[T]he essence of a unilateral contract is that one party’s promise is conditional upon the other party’s performance of certain acts and when the other party performs, the first party is bound.”); *Grenier v. Air Express Int’l Corp.*, 132 F. Supp. 2d 1198, 1200 (D. Minn. 2001) (“With a unilateral contract, the offeree is not bound to perform at all, and the offeror is not bound to perform until performance by the offeree; but on performance by the offeree, the proposal of the offeror is converted into a binding promise and a valid contract is formed.”). Use of publicly available technology pursuant to its terms can result in the formation of a unilateral contract, as Plaintiffs’ counsel’s own website acknowledges. *See* Paul Weiss, *Legal Notice*, <https://www.paulweiss.com/notices/legal-notice> (“By using this site, you agree to the following terms and conditions.”).

Plaintiffs admit that Tornado Cash smart contracts “operate like a vending machine.” Pls.’ Mot. at 5. As first-year law students commonly learn, a vending machine is a paradigmatic example of a unilateral contract. *See, e.g., Chaffin v. Atlanta Coca Cola Bottling Co.*, 194 S.E. 2d 513, 513 (Ga. Ct. App. 1972) (contract of sale existed for purchase of a soda from a vending machine). By advertising its services and publishing its smart contracts on GitHub, and then deploying the contracts to the blockchain, Tornado Cash has made an offer to mix cryptocurrency. A user who becomes aware of

that offer and chooses to transact using that mixing service thereby accepts the terms of the offer, and an enforceable unilateral contract has come into being. *See* Restatement (Second) of Contracts § 45 (Am. L. Inst. 1981) (“Where an offer invites an offeree to accept by rendering a performance and does not invite a promissory acceptance, an option contract is created.”). Although there may seldom be need for legal enforcement of such a contract in light of the automation of its performance, there is no reason to think that such a contract would not be legally enforceable if some external event—a system failure or a hack, perhaps—prevented the execution of its terms.

Courts, legislatures, and litigants alike have all begun to recognize that, as a matter of law, smart contracts are often contracts.¹³ *See, e.g., Rensel v. Centra Tech, Inc.*, No. 17-24500-CIV, 2018 WL 4410110, at *10 (S.D. Fla. June 14, 2018) (recognizing that “[s]mart contracts are self-executing contracts with the terms of the agreement between buyer and seller being directly written into lines of code,” and finding that a purchase through a smart contract did not bind Plaintiff to an arbitration agreement, because the contract code did not contain the arbitration agreement); *In re Bibox Grp. Holdings Ltd. Sec. Litig.*, 534 F. Supp. 3d 326, 330 (S.D.N.Y. 2021) (“A smart contract allows the parties to define the terms of their contract and submit the crypto-assets contemplated in the contract to a secure destination,” and may also “function[] as an automated, secure digital escrow account.”);

¹³ Not every smart contract is an enforceable contract (even though Tornado Cash’s interests in the smart contracts need not be legally enforceable, *see Holy Land I*, 219 F. Supp. 2d at 67–68). For example, a hacker who managed to execute a smart contract in a software-development environment unavailable to the public would have difficulty showing that the developer of the smart contracts had manifested an intent to make an offer. A user, too, might conceivably argue that they had not intended to accept the offer if their machine inadvertently ran a smart contract program due to a glitch. Regardless, the point remains that the typical tools of contract law—unconscionability, mistake, and so forth—should be sufficient to analyze particular factual circumstances to determine if an enforceable contract has been created. *See, e.g., Jonathan G. Rohr, Smart Contracts in Traditional Contract Law, Or: The Law of the Vending Machine*, 67 Clev. St. L. Rev. 67 (2019). Here, the administrative record amply demonstrates that Tornado Cash has actively promoted and advertised its services and how they work, and has published the code to the world with the intention that people use it as advertised. *See* A.R. 61–62. In light of these facts, it is easy to see how Tornado Cash intended to manifest an enforceable contract offer that is accepted when a typical user sends funds to the smart contracts.

Williams v. Block one, No. 20-CV-2809, 2022 WL 5294189, at *2 n.19 (S.D.N.Y. Aug. 15, 2022) (citing plaintiff's explanation that smart contracts "are programs that verify and enforce the negotiation or performance of binary contracts"); *Snyder v. STX Techs., Ltd.*, No. 19-6132, 2020 WL 5106721, at *2 (W.D. Wash. Aug. 31, 2020) (breach of contract action for violation of a smart contract term); Tenn. Code. Ann. § 47-10-202(c) (2018) ("No contract relating to a transaction shall be denied legal effect, validity, or enforceability solely because that contract is executed through a smart contract"); Ariz. Rev. Stat. Ann. § 44-7061 (2018) (similar).

Even if the smart contracts were not "contracts of any nature whatsoever," they would also fall within the regulatory term "services of any nature whatsoever," because they manifest an agreement to provide a service. 31 C.F.R. §§ 510.323, 578.314. A "service" is the "performance of some useful act or series of acts for the benefit of another, usu[ally] for a fee." *Service*, Black's Law Dictionary (11th ed. 2019). The smart contracts perform the "useful act" of obscuring the sender and recipient of Ethereum transactions, for a fee (in the form of gas to Ethereum and/or relayer fees). The smart contracts are therefore also "services" that qualify as "property" under the applicable regulatory definition.

Finally, even if the smart contracts were neither "contracts" nor "services," they would fall within the scope of "any other property, real, personal, or mixed, tangible or intangible, or interest or interests therein, present, future, or contingent." 31 C.F.R. §§ 510.323, 578.314. On this point, Plaintiffs appear to contend that only *absolute*, and not qualified, property rights should count as property—that is, they are only property if someone could "alter," "delete," or "exclude another person from using them." Pls.' Mot. at 17. This is clearly incorrect. *See, e.g., Benjamin v. Town of Islip*, No. 20-cv-56, 2021 WL 8344132, at *13 n.7 (E.D.N.Y. Aug. 12, 2021) ("A qualified property interest is still a property interest[.]"); *see also* 2 William Blackstone, *Commentaries* 391, 395 ("property may also be of a qualified or special nature").

As a threshold matter, the contention that it is truly impossible to exclude anyone from using the smart contracts is factually dubious. As noted above, when Tornado Cash wants its users to use a new contract instead of an old one, it simply builds a new one and connects that contract to its DApp instead. *See* A.R. 570 (listing inoperative smart contracts). And even if it were true that *Tornado Cash* and its users cannot alter, delete, or exclude people from using the smart contracts does not mean that no one can. The smart contracts reside on the Ethereum blockchain,¹⁴ and if a majority of validators on that blockchain refused to validate transactions of users who transacted with particular smart contracts, they could. *See id.* at 1287–88 (explaining the role of validators).

But even assuming the smart contracts are completely immutable and always available for use, they are still property because they confer beneficial ownership in cryptocurrency when certain conditions are satisfied. Plaintiffs momentarily seem to recognize this possibility—and then promptly forget it, several sentences later—when they say that property is not merely “something that is capable of being owned” but also something that “confers the power of ownership.” Pls.’ Mot at 17. This makes perfect sense: a contract is “property” because it confers rights of ownership, even though nobody *owns* the words of the agreement, or in this case, the code. “Property is not a thing, but a bundle of rights[.]” *Coniston Corp. v. Vill. of Hoffman Ets.*, 844 F.2d 461, 465 (7th Cir. 1988) (Posner, J.). Even if the smart contracts were entirely immutable, and available for anyone to use for all eternity, the fact would remain that Tornado Cash’s smart contracts confer a beneficial interest in TORN tokens to the Tornado Cash DAO when relay transactions occur. *See* A.R. 63. No one could reasonably contend that a natural-language contract containing such provisions is not “property”—enshrining those provisions in computer code makes no difference. *See, e.g., Morales v. Sun Construction,*

¹⁴ Notably, the United States indicted an individual who worked for a component of Ethereum for giving a presentation in North Korea about the Ethereum blockchain and, allegedly, how to launder money and evade sanctions. *See United States v. Griffith*, 515 F. Supp. 3d 106, 112 (S.D.N.Y. 2021).

Inc., 541 F.3d 218, 222 (3d Cir. 2008) (parties are bound to contracts even where they do not read, write, or understand the language in which they are written).

Finally, Plaintiffs contend that if OFAC can treat smart contracts as blocked property, then “it is hard to see why other intangible concepts,” like physics equations, ideas, or public-domain images, could not also be blocked property. Pls.’ Mot. at 18. But abstract ideas, equations, and public-domain images do not enshrine a beneficial interest like Tornado Cash’s smart contracts do. Once there is an identifiable beneficial interest—in the form of a contract provision, patent, copyright, or agreement to provide a benefit or service, for example—those previously intangible ideas, equations, or images would surely fall within the scope of “property” or “interest in property” within the meaning of the regulations.

There is nothing novel or unconstrained about this understanding. Indeed, OFAC’s sanctions tools are only effective to the extent they block *all* property and property interests of designated entities, which is why the regulatory definition of these terms is broad by design. *See Global Relief II*, 315 F.3d at 753. Adopting Plaintiffs’ position would mean that any sanctioned entity that memorialized its property interests in a blockchain-enabled smart contract would be able to avoid the sanctions altogether. This alarming notion is incompatible with the intent of Congress to provide the Executive Branch with the authority and tools necessary to protect U.S. national and economic security and foreign-policy interests. The smart contracts are plainly property.

B. Tornado Cash Has an Interest in the Smart Contracts.

As discussed, the word “interest,” as used in the relevant statute and regulations, need not be a legally enforceable interest; it can also be a beneficial interest, as Plaintiffs recognize. Pls.’ Mot. at 19. *Cf. Holy Land I*, 219 F. Supp. 2d at 67–68; *Holy Land II*, 333 F.3d at 162. This is so because IEEPA gives the President the authority to block “property in which any foreign country or a national thereof has *any* interest.” 50 U.S.C. § 1702(a)(1)(B) (emphasis added). The purpose of this statutory breadth

is readily apparent: “[IEEPA] is designed to give the President means to control assets that could be used by enemy aliens.” *Global Relief II*, 315 F.3d at 753. If those “enemy aliens” could merely transform their property interests into new and creative forms to avoid sanctions, it would subvert the entire purpose of the sanctions. As the Seventh Circuit put it in the context of assessing whether domestic property could be blocked:

The function of the IEEPA strongly suggests that beneficial rather than legal interests matter. . . . What sense could it make to treat al Qaeda’s funds as open to seizure if administered by a German bank but not if administered by a Delaware corporation under terrorist control? Nothing in the text of the IEEPA suggests that the United States’ ability to respond to an external threat can be defeated so easily. Thus *the focus must be on how assets could be controlled and used*, not on bare legal ownership.

Id. (emphasis added). There is substantial evidence in the administrative record that Tornado Cash has, at the very least, a beneficial interest in the smart contracts, because they provide it with a means to control and use crypto assets.¹⁵

Specifically, the smart contracts are designed to provide Tornado Cash with relayer fees by shifting ownership of TORN tokens to the DAO when relayer transactions occur. A.R. 62–63. This process is conducted through a cascading series of smart contract transactions, written into the code itself. *Id.*; *see also id.* at 568–70. Plaintiffs describe this as an “optional service” wherein the relayers “pay a commission” to the Tornado Cash DAO, but in actuality, once a relayer transaction is initiated, the transfer of funds to the DAO is automatic. Pls.’ Mot. at 20. It is true that using relayers in the first place is optional, but it would defeat the whole purpose of Tornado Cash not to use one, because without a relayer, the sender must pre-fund the recipient account with ETH to pay Ethereum’s “gas,” which would establish a traceable link between the source of funds and the recipient account. *See* A.R.

¹⁵ Plaintiffs attempt to distinguish *Global Relief II* and *Holy Land II* because the record in those cases had inarguably demonstrated a beneficial interest. *See* Pls.’ Mot. at 21 (discussing *Global Relief II*, 315 F.3d at 753; *Holy Land II*, 333 F.3d at 161, 163). But, as explained here, this record also contains substantial evidence of a beneficial interest, as those courts understood it.

951. It is consequently unsurprising that 83.67% of Tornado Cash transactions use relayers. *Id.* at 57 n.113, 63; ECF No. 72-1. If Tornado Cash’s smart contracts are “like a vending machine,” Pls.’ Mot. at 5, then it is a vending machine that Tornado Cash specifically designed to provide it with a slice of revenue every time a customer buys a Coke. Moreover, Tornado Cash has ensured that all of the other products in the vending machine are so comparatively undesirable that 83.67% of the machine’s sales are Cokes. A.R. 57 n.113, 63; ECF No. 72-1. It plainly has a beneficial interest in this machine even if Tornado Cash designed it to be subsequently inalterable.¹⁶

There is also further evidence that Tornado Cash has an interest in its smart contracts. Tornado Cash expended extensive efforts to develop the contracts and advertise their services; undertook a complex “trusted setup ceremony” to enhance the contracts’ cryptography; created the TORN token, which allowed it to reward users who staked TORN in its smart contracts to enhance the service’s anonymity and increase the price of that asset; and offered “bug bounties,” which are rewards for users who find errors in the software. A.R. 60–62. This is all highly probative circumstantial evidence that the smart contracts provide Tornado Cash with an interest.

Plaintiffs argue that evidence of how Tornado Cash itself “regards” the smart contracts does not “create, or prove the existence of, an interest in property.” Pls.’ Mot. at 20. But this misstates the standard. To survive judicial review, OFAC need not conclusively *prove* that there is an interest, nor demonstrate that Tornado Cash was the one that created it. Rather, under the APA, all OFAC must do is demonstrate that it had “substantial evidence” to reach its conclusion that Tornado Cash’s interest existed. *Holy Land II*, 333 F.3d at 163 (“OFAC needed only to determine that Hamas had an interest in [the] property, and the record provided substantial evidence to support that conclusion.”).

¹⁶ Accordingly, the Tornado Cash smart contracts are quite unlike a “national park” that Tornado Cash advertises to increase foot traffic to its gift shop. Pls.’ Mot. at 20. They are more like the products in the gift shop itself.

Courts have recognized for decades that it is proper to use reasonable inferences of this type to demonstrate substantial evidence. *Appalachian Elec. Power Co. v. NLRB*, 93 F.2d 985, 989 (4th Cir. 1938) (“substantial evidence is evidence furnishing a substantial basis of fact from which the fact in issue can reasonably be inferred”). The evidence in the administrative record, taken together, more than suffices to demonstrate Tornado Cash’s interest in the smart contracts.¹⁷

III. Defendants Are Entitled to Summary Judgment on the First Amendment Claim.

Plaintiffs argue that, even if OFAC had the authority to designate Tornado Cash, that designation prohibits speech in violation of the First Amendment. Plaintiffs fail to show that they have any First Amendment–protected interest that is implicated by OFAC’s designation of Tornado Cash. Moreover, even if their claims did implicate protected speech, the designation would easily satisfy the applicable scrutiny.

A. The Designation Does Not Implicate Plaintiffs’ Protected Speech.

As an initial matter, Plaintiffs have not identified any First Amendment–protected interest that is implicated by this designation. They assert the right to “us[e] the Tornado Cash privacy protocol to engage in socially valuable speech.” Pls.’ Mot. at 23. But Plaintiffs do not have a First Amendment right to “us[e]” a specific platform to send funds anonymously.

There is no First Amendment speech right to use a single preferred service to send money; the Constitution does not protect Plaintiffs’ choice of Western Union instead of another money transfer service, for example. Moreover, there is no First Amendment right to send cryptocurrency

¹⁷ Plaintiffs also argue that if Tornado Cash has an interest in the smart contracts, then American cars could be considered the blocked property of a designated Russian oil magnate merely because driving increases demand for oil. Pls.’ Mot. at 21. This case comes nowhere close to presenting such an attenuated and speculative interest. Here, Tornado Cash designed and built a tool for its ongoing direct benefit and would continue to reap that benefit unincumbered were it not for OFAC’s sanctions. “Nothing in the text of the IEEPA suggests that the United States’ ability to respond to an external threat can be defeated so easily.” *Global Relief II*, 315 F.3d at 753.

instead of fiat currency, just as there is no First Amendment right to send North Korean won instead of U.S. dollars. Instead, as relevant, the First Amendment simply protects the right of individuals to donate money to social causes of their choosing. *See, e.g., McCutcheon v. Fed. Election Comm’n*, 572 U.S. 185, 191 (2014) (“The right to participate in democracy through political contributions is protected by the First Amendment, but that right is not absolute.”); *NAACP v. Alabama ex rel. Patterson*, 357 U.S. 449, 462 (1958). But no such right is at stake here: OFAC’s designation does not implicate Plaintiffs’ right to donate money to causes of their choosing or otherwise engage in protected speech, because Plaintiffs remain free to donate money and to interact with the open-source code as they please—and to do so without public disclosure. They merely cannot send funds *through Tornado Cash* (unless they obtain a license to do so).

Nor does the designation affect the Tornado Cash code or cause any incidental limitations on Plaintiffs’ access to or interaction with that code. Plaintiffs state summarily that some courts have “held that code is protected speech.” Pls.’ Mot. at 24. But that question is not before the Court. OFAC’s designation prohibits persons subject to U.S. jurisdiction from using the Tornado Cash smart contracts to engage in particular *transactions*. It does not limit access to the open-source code or prevent Plaintiffs from engaging with the code in other ways that are not prohibited by OFAC’s sanctions, or from developing new code. *See* OFAC *FAQ*. As OFAC explains on its website, although “engaging in any transaction with Tornado Cash or its blocked property or interests in property is prohibited for U.S. persons, *interacting with open-source code itself*, in a way that does not involve a prohibited transaction with Tornado Cash, *is not prohibited*.” *Id.* (emphases added).

In an attempt to argue otherwise, Plaintiffs cite a blog post within the administrative record that took issue with the independent decision of GitHub to remove “original copies of all Tornado source code repositories” after the designation. *See* Pls.’ Mot. at 24 (quoting A.R. 404). But independent action by a third party does not implicate the First Amendment. *See, e.g., Ass’n of Am.*

Physicians & Surgeons, Inc. v. Schiff, 23 F.4th 1028, 1033 (D.C. Cir. 2022). And, in any event, the author of the blog post clarified that the code remains available, and he “made offline copies of [archival] repositories and will immediately re-publish them” if they become otherwise “inaccessible.” A.R. at 404–05; *see generally id.* at 33 & n.39. Nothing in the designation prohibits the blog post author, or Plaintiffs, from retaining or engaging with the open-source code in the ways that the author described.¹⁸

Because no protected speech is limited by OFAC’s designation, incidentally or otherwise, Plaintiffs’ affidavits unsurprisingly do not—and could not—demonstrate any inhibition of speech stemming from the designation. Three Plaintiffs attest that they have funds held in Tornado Cash’s smart contracts, *see* Alameida Aff. ¶ 14, ECF No. 41-2; P. Van Loon Aff. ¶ 16, ECF No. 41-4; Welch Aff. ¶ 16, ECF No. 41-6, but none suggest that this has resulted in any limitation on their speech (and none claims to have sought a license). *Cf.* OFAC FAQ; Letter to Paul Weiss, Ex. A. Three other Plaintiffs allege that they only ever used Tornado Cash for business purposes, and they do not attest that they have otherwise been unable to pursue those business purposes as a result of the designation. *See* J. Van Loon Aff. ¶¶ 15–16, ECF No. 41-1; P. Van Loon Aff. ¶¶ 15–16; Vitale Aff. ¶¶ 15–16, ECF No. 41-5.

¹⁸ In an untimely proposed amicus brief, the Electronic Frontier Foundation (EFF) argues that OFAC’s action has had a chilling effect on certain code developers, not before this Court, who write and develop open-source code on GitHub. Proposed Br. of *Amicus Curiae* EFF at 9–10, ECF No. 70-1. EFF asserts that, although OFAC’s FAQ “mitigated” developers’ fears by “limit[ing] the reach” of the sanction, the FAQ was not specific enough, and did not provide the public with sufficient notice. *Id.* at 10, 13. But the FAQ did not “limit[]” or “amend[]” the designation in any way, *id.*; it simply clarified that the designation blocks only transactions with Tornado Cash’s property and does not restrict interaction with the open-source code unless there are “additional facts” amounting to a *transaction* with Tornado Cash. *See* OFAC FAQ. The FAQ is posted publicly on OFAC’s website; OFAC has accordingly placed the public on notice that interacting with and discussing the code on GitHub is permissible. Both the nonplaintiff developers’ subjective “worrie[s]” and EFF’s notice argument are groundless.

Two Plaintiffs allege that they collaborated to write proof-of-concept code using Tornado Cash’s open-source software, and one now expresses “unwilling[ness] to interact with the software out of fear of serious penalties.” Fisher Aff. ¶ 17, ECF No. 41-3; *see id.* ¶¶ 15–16; Vitale Aff. ¶¶ 13–14. But that fear is unsubstantiated: as explained, they remain free to continue to use the open-source code for such purposes. *See* OFAC *FAQ*. Plaintiff Vitale further “worri[es]” that, without Tornado Cash, “strangers could follow [his] public transaction patterns.” Vitale Aff. ¶ 13. But he provides no reason to believe that any such consequences have occurred or will occur, let alone that his speech has been constrained in any way. Such expressions of subjective fears cannot support a First Amendment claim. *See Laird v. Tatum*, 408 U.S. 1, 13–14 (1972) (plaintiffs who raised allegations of mere “subjective ‘chill’” as a result of government conduct had no standing to raise a First Amendment claim).

Finally, Plaintiff Alameida attests that he once used Tornado Cash to donate funds to the Ukrainian government after Russia’s invasion of Ukraine. Alameida Aff. ¶ 14. He asserts that if Tornado Cash were no longer designated, he would use Tornado Cash “to make future transactions,” but he does not state any purpose of those future transactions. *Id.* ¶ 20. Although Plaintiffs’ brief speculates that Mr. Almeida “may not be comfortable making donations to support the Ukrainian government without the ability to use Tornado Cash to protect [his] identity,” his affidavit says nothing of the sort, and indeed, Mr. Almeida appears comfortable announcing his support for Ukraine in a public affidavit. Pls.’ Mot. at 24. He certainly does not indicate that he has been prohibited, or even chilled, from donating to any favored cause—including to Ukraine—because of the designation. *Id.* ¶ 20. He does not even attest that he in fact *has not* subsequently sent money to Ukraine, let alone that OFAC’s designation meaningfully prevented him from doing so. *See id.*

These affidavits demonstrate that no First Amendment rights are at stake here: OFAC’s designation has not constrained Plaintiffs’ ability to donate money to causes of their choosing or

otherwise engage in “socially valuable speech,” Pls.’ Mot. at 23. Plaintiffs provide no support for the notion that the right to engage in expressive conduct encompasses a constitutional right to *use a particular designated service* to that end. Plaintiffs have alleged merely that they are prohibited from using Tornado Cash alone; they do not attempt to demonstrate that other means of sending money (whether through cryptocurrency or more traditional means, like bank transfers) are unavailable to them. And any Plaintiff who previously interacted with the Tornado Cash code can still do so. No incidental limitation on protected speech stems from the designation of Tornado Cash.

B. In Any Event, the Designation Satisfies the Applicable Standard.

Even if the First Amendment were implicated, the Court should, at most, apply intermediate scrutiny, because the challenged government action is content-neutral and not directed at suppressing speech. *See Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 642–43 (1994). And, even if the designation had caused any “incidental limitations on First Amendment freedoms,” it would easily satisfy intermediate scrutiny. *United States v. O’Brien*, 391 U.S. 367, 376 (1968). “[A] sufficiently important governmental interest in regulating the nonspeech element can justify [such] incidental limitations.” *Id.*¹⁹

Here, the Government has an important and substantial interest wholly unrelated to the suppression of free expression—that is, an interest in preventing malicious cyber activities that imperil U.S. national security, including by the Government of the DPRK. *See, e.g.*, E.O. 13722; *see also Holy Land I*, 219 F. Supp. 2d at 81 (rejecting First Amendment challenges to OFAC’s designation of Holy

¹⁹ Proposed amicus EFF also argues that OFAC’s action is a content-based restriction that should be subject to strict scrutiny because it is based on the “subject matter” of Tornado Cash’s smart contracts. Proposed Br. of *Amicus Curiae* EFF at 12–13. But, as explained, nobody has been restricted from “speaking” the Tornado Cash code; they have been restricted from *executing* that code by using it to send cryptocurrency on the blockchain. Accordingly, this is no more a content-based restriction on speech than the blocking of any financial transaction pursuant to a contract’s terms would be.

Land Foundation and resulting prohibition on its “humanitarian donations”). Plaintiffs do not contend otherwise. *See* Pls.’ Mot. at 22.

Instead, Plaintiffs argue that the designation of Tornado Cash is not “narrowly tailored to serve [a] substantial governmental interest[]” and is overbroad. *Id.* (quoting *Doe I v. Landry*, 909 F.3d 99, 108 (5th Cir. 2018)). Their argument both ignores the principal challenges to regulatory enforcement that Tornado Cash presents and mischaracterizes the designation of Tornado Cash as a far broader action than it is.

First, Plaintiffs suggest that the designation is not “narrowly tailored” because the Government’s “substantial interest in preventing money laundering” could have been satisfied by “impos[ing] sanctions on individual money launderers and crypto thieves.” *Id.* at 22–23. But Tornado Cash poses a risk to U.S. national security because it obfuscates the identity of its users, many of whom engage in the transaction of illicit funds. OFAC could not have reasonably taken any narrower action than sanctioning Tornado Cash, the very platform that facilitates that anonymous activity. As described above, OFAC’s actions are effective only to the extent that a designated entity is fully deprived of access to the assets that benefit it. *See Global Relief II*, 315 F.3d at 753. Moreover, the fact that individuals can apply for licenses to engage in the otherwise prohibited transactions further demonstrates that the sanction is narrowly tailored. *See* 31 C.F.R. § 578.404; OFAC *FAQ*. In any event, to survive intermediate scrutiny, the Government need not show that a regulation is the least restrictive means available. *See Bd. of Trs. of State Univ. of N.Y. v. Fox*, 492 U.S. 469, 478 (1989) (“[W]e have not insisted that there be no conceivable alternative, but only that the regulation not burden substantially more speech than is necessary to further the government’s legitimate interests.” (internal quotation marks omitted)).

Plaintiffs fail to cite a single analogous case on this issue. Instead, Plaintiffs compare OFAC’s action to “banning the printing press,” Pls.’ Mot. at 23, but that analogy grossly mischaracterizes the

challenged action. Those who wish to use Tornado Cash may continue to use any other available service to send and receive money lawfully, including the many traditional channels (like bank transfers) that allow them to do so privately. Sanctioning a single entity for facilitating the illicit conduct of its customers—conduct as to which the President has declared a national emergency for threatening U.S. national security and foreign policy, no less—is narrowly tailored to the Government’s substantial interest.

Next, Plaintiffs contend that designating Tornado Cash is “overbroad” because it may “deter[] people from engaging in constitutionally protected speech.” Pls.’ Mot. at 23 (quoting *United States v. Williams*, 553 U.S. 285, 292 (2008)). As described above, there is no evidence that any of these Plaintiffs are so deterred, *see supra* at 38–39, and to the extent that Plaintiffs are claiming harm to third parties, they “may not seek redress for injuries done to others,” *see Moose Lodge No. 107 v. Irvis*, 407 U.S. 163, 166 (1972). Courts apply the overbreadth doctrine only where the challenged government action “prohibits a *substantial* amount of protected speech.” *Williams*, 553 U.S. at 292 (emphasis added). In applying this doctrine, the Supreme Court has emphasized the importance of “striking[] a balance between competing social costs,” particularly in light of the “harmful effects” of “invalidating a law . . . directed at conduct” that is harmful to national interests. *Id.*

The Supreme Court has further stated that the “overbreadth doctrine is strong medicine that should be employed only as a last resort,” and its “function, a limited one at the outset, attenuates” as the regulated expression “moves from pure speech toward conduct.” *L.A. Police Dep’t v. United Reporting Pub. Corp.*, 528 U.S. 32, 40 (1999) (internal quotation marks omitted). A party challenging government regulation as overbroad therefore “must demonstrate a realistic danger that the [regulation] itself will significantly compromise recognized First Amendment protections of parties not before the court before [the regulation] will be struck down.” *Hersh v. U.S. ex rel. Mukasey*, 553 F.3d 743, 762 (5th Cir. 2008) (internal quotation marks and brackets omitted).

Plaintiffs do not come close to making this showing. Here, as explained above, the Tornado Cash designation does not “compromise,” *id.*, or “prohibit[]” constitutionally protected speech at all, much less a “substantial amount,” *Williams*, 553 U.S. at 292. It merely prevents persons subject to U.S. jurisdiction from using *one particular* cryptocurrency mixer. Plaintiffs are free “to make donations to support important political and social causes,” Pls.’ Mot. at 24, through any of countless lawful platforms and methods, including ones that do not require public disclosure. The cases that Plaintiffs cite do not demonstrate otherwise; they all address statutory restrictions on political campaign spending and are irrelevant here. *See Citizens United v. Fed. Election Comm’n*, 558 U.S. 310, 366–71 (2010) (addressing First Amendment protection of “political speech of media corporations” and *rejecting* constitutional challenges to statutory provisions requiring disclaimers and disclosures of political funding sources); *Zimmerman v. City of Austin*, 881 F.3d 378, 395 (5th Cir.), *cert. denied*, 139 S. Ct. 639 (2018) (holding unconstitutional a provision of a city law requiring disgorgement of excess campaign funds and containing no mention of overbreadth doctrine); *McCutcheon*, 572 U.S. at 191 (addressing statutory aggregate limits on campaign contributions); Pls.’ Mot. at 24.

Accordingly, even if Plaintiffs had identified any First Amendment–protected interest affected by the designation of Tornado Cash, that designation is appropriately narrowly tailored to the Government’s substantial interest in preventing malicious cyber activities to safeguard national security.

CONCLUSION

For the foregoing reasons, summary judgment should be issued in Defendants’ favor on all counts, and Plaintiffs’ cross-motion for summary judgment should be denied.

Dated: May 3, 2023

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