

**PUBLIC VERSION**

**UNITED STATES INTERNATIONAL TRADE COMMISSION**

**Washington, D.C.**

**In the Matter of**

**CERTAIN GLASS SUBSTRATES FOR  
LIQUID CRYSTAL DISPLAYS,  
PRODUCTS CONTAINING THE SAME,  
AND METHODS FOR MANUFACTURING  
THE SAME**

**Inv. No. 337-TA-1433**

**RECOMMENDED DETERMINATION ON REMEDY AND BONDING**

(August 6, 2026)

On July 23, 2026, the undersigned issued the final initial determination in the above-captioned matter (the “Final ID” or “FID,” EDIS Doc. ID 889198). In accordance with the Commission’s Notice of Investigation and pursuant to Commission Rule 210.42(a)(1)(ii), this is the undersigned’s recommended determination on remedy and bonding. 19 C.F.R.

§ 210.42(a)(1)(ii). As set forth in the Final ID, the undersigned found a violation of section 337, by each of the remaining Respondents, by reason of misappropriation of trade secrets, the threat or effect of which is to destroy or substantially injure an industry in the United States.<sup>1</sup> In particular, the Final ID found a violation of section 337 with respect to the following asserted trade secrets: TS 15.1, 16.1, 17.1, TS 22.1, TS 24.1, TS 30.1, TS 35.1, TS 35.2, TS 41.1, TS 51, and TS 68.

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<sup>1</sup> “The plain language description of the accused products or category of accused products, which defines the scope of the investigation, is ‘glass substrates for LCDs, display panels containing the same, and electronic devices containing the same, which are TVs, monitors, notebook and laptop computers, and tablets.’ 90 Fed. Reg. 8140 (Jan. 24, 2025).”

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The Complainant in this investigation is Corning Incorporated (“Corning” or “Complainant”). *See* Final ID at 4.<sup>2</sup> The remaining Respondents are Caihong Display Devices Co., Ltd. (“Caihong Display” or “Caihong”); Xianyang CaiHong Optoelectronics Technology Co., Ltd. (“CHOT”); Respondent TCL China Star Optoelectronics Technology Co., Ltd. (“CSOT”); and TTE Technology, Inc. d/b/a TCL North America (“TCL”). *See* Final ID at 5-6. Caihong Display is the manufacturer of the glass substrates at issue, which manufacturing process the Final ID found involves misappropriation of certain Corning trade secrets. CHOT and CSOT are manufacturers of LCD panels, certain of which contain glass substrate manufactured by Caihong Display. TCL is a manufacturer of televisions incorporating LCD panels, including those supplied by CHOT and CSOT. *See id.*

Section 337(d) provides in pertinent part that if the Commission determines that there is a violation, “it shall direct that the articles concerned . . . be excluded from entry into the United States” unless, upon consideration of the statutory public interest factors, it determines otherwise. 19 U.S.C. § 1337(d)(1). The Commission may enter either a limited exclusion order or a general exclusion order. *Id.* The Commission may issue a cease and desist order in addition to, or instead of, an exclusion order. 19 U.S.C. § 1337(f)(1). During the 60-day Presidential Review period under 19 U.S.C. § 1337(j) “articles directed to be excluded from entry under subsection (d) . . . shall . . . be entitled to entry under bond prescribed by the Secretary in an amount determined by the Commission to be sufficient to protect the complainant from any injury.” 19 U.S.C. § 1337(j)(3). The Commission has broad discretion to select the form, scope,

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<sup>2</sup> Unless otherwise indicated here, the abbreviations used in the Final ID apply here as well.

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and extent of the remedy imposed for a violation of section 337. *See, e.g., Hyundai Elecs. Indus. Co. v. Int'l Trade Comm'n*, 899 F.2d 1204, 1208-09 (Fed. Cir. 1990).

As discussed herein, it is the undersigned's recommendation that a limited exclusion order should issue against all remaining Respondents for a period of 5-6 years; that a cease and desist order should issue as to Respondent TCL; and that a bond of 9.8% of entered value should be set during the Presidential Review period.

**A. General Exclusion Order**

“Where a complainant seeks a GEO in an investigation and at least one respondent has appeared to contest the investigation, the Commission applies the legal framework of section 337(d).” *Certain Pillows and Seat Cushions, Components Thereof, and Packaging Thereof*, Inv. No. 337-TA-1328, Comm'n Op., EDIS Doc. ID 808365, at 6-7 (Nov. 13, 2023). Section 337(d)(2) provides that:

The authority of the Commission to order an exclusion from entry of articles shall be limited to persons determined by the Commission to be violating this section unless the Commission determines that—  
(A) a general exclusion from entry of articles is necessary to prevent circumvention of an exclusion order limited to products of named persons; or

(B) there is a pattern of violation of this section and it is difficult to identify the source of infringing products.

19 U.S.C. § 1337(d)(2); *see also Ground Fault Circuit Interrupters and Prods. Containing Same*, Inv. No. 337-TA-615, Comm'n Op., EDIS Doc. ID 321819, at 25 (Mar. 26, 2009). “Satisfaction of either of the requirements in subsection (d)(2) will suffice to support issuance of a GEO.” *Certain LED Lightning Devices and Components Thereof*, Inv. No. 337-TA-1107, Comm'n Op., EDIS Doc. ID 734513, at 6 (Sept. 11, 2019).

**1. The Parties' Arguments**

Corning argues that a GEO is warranted under both Section 337(d)(2)(A) and (B).

Corning argues that circumvention of an LEO is likely because of “market conditions,” such as strong demand and profits in the LCD market, as well as “the Chinese government’s treatment of the display industry as a strategic sector.” CIB at 189-190. Corning also argues that Respondents can “easily circumvent an LEO” because devices imported into the United States “bear no external indication” that Caihong Display manufactured the LCD glass, and that “the only way Corning could verify that imported TVs contained Irico glass was by breaking down the device, chemically testing glass samples, and comparing them to known Irico samples.” *Id.* at 190.

Corning contends that the “TV-maker Respondents” argued that they do not know the source of the glass in their products. *Id.* Corning argues that a GEO is also appropriate because of the use of intermediary importers, online distribution networks for LCD panels, and Irico’s asserted lack of knowledge or control over where its glass goes when sold. *Id.* at 191. Corning argues that the evidence indicates that Respondents would not abide by the terms of any limited exclusion order, as evidenced by “false testimony” “deceptive espionage techniques,” and a recent sanction imposed by a federal district court. *Id.* at 192-93.

Corning further argues that a GEO is warranted because “there is a pattern of violation” and it is difficult to identify the source of infringing products. Corning argues that each of the remaining Respondents violates Section 337 and that, “[h]ad the settled Respondents proceeded to a hearing, the evidence would have shown the same.” CIB at 193. Corning further argues that “the record shows dozens of entities capable of supplying infringing products.” *Id.*; *see also* CRB at 72.

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Respondents argue that no GEO is warranted in this investigation. *See* RIB at 163. Respondents argue that Corning cites “no evidence” to support its market incentives claim, and that Corning “lacks any evidence showing how ‘political incentives’ to ‘continue expanding’ translate to incentives to violate an LEO.” RRB at 104. Respondents argue that Corning’s settlement agreements with the former respondents show that “panel makers and device manufacturers alike seem to have no issue policing their use of Caihong’s glass,” that “Corning has not explained how the mere existence of ecommerce platforms necessitates a finding that Respondents will attempt to circumvent an LEO,” and that Corning’s e-commerce argument “would apply to virtually any consumer products investigation.” *Id.* Respondents argue that “Corning’s unfounded allegation that Caihong’s corporate witnesses lied or engaged in ‘espionage’ is beyond the pale,” and that “[t]here is no evidence supporting that Caihong, the Respondent in this Investigation, was a party” to the district court case, and that “a ***discovery order*** in an irrelevant litigation is not the type of conduct contemplated as ‘circumvention,’ and Corning fails to cite a single case saying otherwise.” RRB at 105. Respondents argue that Corning has not shown a “pattern of violation” based on allegations of misappropriation and the “[m]ere capability” of supplying infringing products. *Id.* at 106.

Staff argues that “[t]he evidence does not support Corning’s request for a GEO because there is a single source of glass that Corning alleges is manufactured using its trade secrets, the single source is identified and a party to this investigation, and there is no evidence of a likelihood of circumvention,” and that “a GEO is not necessary to prevent circumvention of an LEO.” SIB at 135; SRB at 19.

## 2. Discussion

Upon review of the evidence of record, the undersigned finds that no GEO is warranted.

**Section 337(d)(2)(A)**

With respect to a GEO under Section 337(d)(2)(A) (“necessary to prevent circumvention of an exclusion order limited to products of named persons”), the evidence fails to show a likelihood of circumvention by any of the remaining Respondents. Corning and its witnesses have explained that the imported products at issue are downstream electronic products such as television sets (which may incorporate panels made with Caihong glass). *See* Tr. (Hudson) at 791:23-792:2 (“[P]anels are sold to set makers. And there’s no set makers that I’m aware of in the United States. Therefore, all the set makers reside in Asia and . . . panels flow around Asia to support the LCD in the set market.”); Tr. (Fischel) at 836:3-8 (Corning and Caihong Display both sell LCD glass to panel makers and panel makers are located outside the United States); Complainant’s Statement on the Public Interest (EDIS Doc. ID 839509) (Dec. 18, 2024) at 1-2 (the LCD glass substrates at issue “are incorporated into LCD panels, which are themselves incorporated into televisions, monitors, notebook and lap computers, and tablets (collectively, ‘Consumer Electronics Products.’). Those LCD panels are generally sold abroad and incorporated into finished Consumer Electronics Products. Those products are then imported by certain Respondents from outside the United States . . .”).

As to Respondents Caihong, CHOT, and CSOT, Corning has not persuasively shown a likelihood of circumvention, particularly given that the products they manufacture are generally incorporated into downstream products overseas before any importation. *See Certain Semiconductor Chips with Minimized Chip Package Size and Prods. Containing Same*, Inv. No. 337-TA-605, Comm’n Op., EDIS Doc. ID 404442, at 66-67 (Jun. 3, 2009) (“*Certain Semiconductor Chips*”) (“Tessera concedes that most of the infringing articles it seeks to exclude are manufactured overseas and incorporated into downstream products prior to being imported

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into the United States . . . Accordingly, Respondents’ selling the accused chip assemblies for incorporation into downstream products overseas is pre-existing practice. The Commission has found that such pre-existing practice cannot be the basis for circumvention.”); *see also Certain GPS Devices and Prods. Containing Same*, Inv. No. 337-TA-602, Comm’n Op., EDIS Doc. ID 317981, at 18 (Jan. 27, 2009) (“*Certain GPS Devices*”).<sup>3</sup> While Corning suggests in its post-hearing brief that CHOT or CSOT LCD panels may be imported into the U.S. through online retailers (CIB at 191), Corning has not presented evidence of any imports (let alone significant imports) through those channels. *Cf. Certain Semiconductor Chips Having Synchronous Dynamic Random Access Memory Controllers and Products Containing Same*, Inv. No. 337-TA-661, Comm’n Op., EDIS Doc. ID 431328, at 12 (Aug. 10, 2010) (finding evidence unpersuasive where complainant “has not demonstrated that the five websites identified in its response as international third party distributors/resellers do in fact sell products to U.S. customers via the internet”).

As to manufacturers of the imported downstream products, Corning has entered settlement agreements with three of the original Respondents making consumer electronic products.<sup>4</sup> Corning has not presented evidence that the only remaining Respondent making

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<sup>3</sup> As a general matter, downstream products of non-respondents are not subject to an LEO. *See, e.g., Certain Semiconductor Chips Having Synchronous Dynamic Random Access Memory Controllers and Products Containing Same*, Inv. No. 337-TA-661, Comm’n Op., EDIS Doc. ID 431328, at 12 (Aug. 10, 2010) (“We decline Rambus’s request to direct the LEO to all products incorporating NVIDIA controllers, even products of non-respondents, because such relief is precluded by *Kyocera Wireless Corp. v. ITC*, 545 F.3d 1340 (Fed. Cir. 2008).”); *Certain GPS Devices*, Inv. No. 337-TA-602, Comm’n Op. at 17 (“the Commission has no authority to issue a limited exclusion order directed to downstream products of non-respondents”); *Certain Semiconductor Chips*, Inv. No. 337-TA-605, Comm’n Op. at 62 (“the Federal Circuit in *Kyocera* ruled that an LEO may not bar the importation of infringing articles when they are incorporated into downstream products manufactured by non-respondents”).

<sup>4</sup> *See* Order No. 52 (Vizio); Order No. 53 (LG); Order No. 85 (Hisense).

consumer electronic products, TCL, is likely to circumvent an exclusion order. *See* CIB at 7.<sup>5</sup> Moreover, TCL has stipulated that it is “bound by all factual and legal determinations” in this investigation. JX-2755C ¶ 16.

**Section 337(d)(2)(B)**

The evidence also fails to show a pattern of violation, accompanied by a difficulty in identifying source, that would warrant a GEO. Corning presented witness testimony regarding the close relationships among glass-makers (such as Caihong), panel-makers (such as CHOT and CSOT), and manufacturers of downstream products, indicating that the sources of products containing Caihong glass are not difficult to identify. *See* Tr. (Bocko) at 649:13-650:2 (relationship between glass makers and LCD panel makers is “profound” and relationship between glass makers and LCD TV manufacturers is “[a]pproaching that level of depth”). Consistent with this evidence, Corning accepted settlements with downstream panel-makers and device manufacturers on terms that require them to police their own sources of LCD glass substrate. *See* RRB at 104-105; Order Nos. 52, 53, 85. Corning’s acceptance of these settlements indicates that it believes such policing is reasonably possible.<sup>6</sup> Particularly in this context, Corning has not shown that it could not reasonably identify manufacturers of imported products containing Caihong glass through, *inter alia*, discovery. *See* CIB at 191 (discussing panel-makers and their customers, citing CX-0362C, CX-4916C, CX-3432C); *Certain Semiconductor Chips* Inv. No. 337-TA-605, Comm’n Op. at 69 (complainant did not establish that it is difficult to

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<sup>5</sup> TCL is a Delaware corporation based in California. *See* Final ID at 6. In addition, as discussed below, TCL may also be subject to a cease and desist order.

<sup>6</sup> Similarly, remaining Respondent TCL stipulated that it has imported into the United States TVs containing Caihong glass based on information it was able to receive from panel-makers CSOT, CHOT, and HKC. *See* JX-2755C ¶¶ 11-14. Corning also acknowledges that a certification provision may be used with an exclusion order “to address practical problems of identification.” CIB at 198.

identify source where it was able to obtain information regarding source of allegedly infringing products during discovery).

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For at least these reasons, the evidence fails to show that a GEO is warranted.

**B. Limited Exclusion Order**

No party disputes that, should the Commission find a violation and determine not to issue a general exclusion order, a limited exclusion order is appropriate. *See* CIB at 188-189; RIB at 160; SIB at 131.

The parties dispute the proper duration of any exclusion order. This issue is discussed in Part C below.

In addition, Corning contends that an exclusion order should cover devices “made with” and “using” Corning’s trade secrets. *See* CIB at 197. Corning also contends that the order should reach “components, parts, and downstream products that contain Irico glass, consistent with the Investigation’s scope.” *Id.* at 197-98. Corning suggests that “[t]he Commission may employ a certification provision “to address practical problems of identification associated with the incorporation of unmarked Irico glass into panels and devices.” *Id.* at 198. Given the “multitude of products with LCDs made or imported by companies that have never used Irico glass, however, the Commission need not take the additional step of requiring all importers to first obtain an advisory opinion that their products are made without using Corning’s trade secrets.” *Id.*

The undersigned recommends that an exclusion order should be directed to products of the remaining Respondents that use or were manufactured using Corning’s trade secrets and agrees that a certification provision would be appropriate. *Cf.* EDIS Doc. ID 419028 at ¶¶ 1, 3

(LEO in Inv. No. 337-TA-655) (LEO directed to “[c]ast steel railway wheels and products containing the same that are manufactured using any of the ABC Trade Secrets by or on behalf of, or imported by or on behalf of, Respondents” and including certification provision); EDIS Doc. ID 728167 at ¶¶ 1, 4 (LEO in Inv. No. 337-TA-1145) (LEO directed to products “using any of the Asserted Trade Secrets that are manufactured abroad by or on behalf of, or imported by or on behalf of, Respondents” and including certification provision). As discussed *supra*, however, Corning has not shown that a general exclusion order is warranted here. Accordingly, Corning’s request that the entered exclusion order (*i.e.*, a limited exclusion order) should encompass “downstream products” should be rejected to the extent such downstream products are not manufactured by (or on behalf of) or imported by (or on behalf of) a named Respondent. *See* n.3 *supra*.<sup>7</sup>

**C. Duration of Exclusion Order**

**1. The Parties’ Positions**

Corning contends that the length of an exclusion order should be “equal to the time it took Corning to develop the Trade Secrets, which uncontested evidence shows is at least 25 years.” CIB at 193. Corning contends that its work to develop the process began in the 1960s and continued through the early 1980s, “when Corning produced its first LCD glass substrate.” *Id.* at 194 (citing Tr. (Bocko) at 650:2-651:15, CDX-0008C.11). Corning contends that it took [REDACTED] *Id.* at 195. Corning contends that “[t]he only other companies to independently develop fusion draw technology—NEG and AvanStrate—needed a similar length of time, and both had experience making flat

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<sup>7</sup> Similarly, to the extent Corning seeks to exclude downstream products of non-respondents through “components” and “parts” language, this is also inappropriate for an LEO. *See* CIB at 197-98.

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glass for displays.” *Id.* (citing Tr. (Bocko) at 673:20-674:18). Corning summarizes Dr. Bocko’s testimony regarding the length of time for Corning to develop individual components of the FDM and Corning’s operational know-how. *See id.* at 195-96. Corning further argues that neither of Caihong’s technical experts had a basis to provide an alternative timeline. *Id.* Corning argues that advances in computer modeling and publicly available information would not accelerate the development time for fusion technology. *Id.*

Respondents argue that that the duration of the exclusion order “is the length of time it would have taken the respondent to develop the complainant’s trade secrets.” RIB at 160. Respondents argue that Corning failed to analyze the length of remedy on a trade secret by trade secret basis, “making it impossible to determine a remedy.” *Id.* Respondents argue that Dr. Bocko’s opinions lack credibility, that he did not cite to any Corning documents to corroborate his timeline, and that “it is incorrect to assume it would take another company the same amount of time today as it would have taken in the 1960s.” *Id.* at 161. Respondents argue that Corning’s development time was limited by lack of demand and limitations in LCD technologies, and that “[a]n LCD glass manufacturer entering the market in the early 2000s would not have faced the same constraints.” *Id.* Corning argues that Caihong (and others in the industry) had access to greater public information about fusion drawn than Corning did in the 1960s, including many patent applications filed by Corning and others. Respondents argue that another market entrant, Hunan Shaohong Special Glass Co., “went from construction to volume production on a G8.5 glass line in less than 4 years.” RIB at 162 (citing Tr. (Gordon) at 1258:14-21, RX-0640.17).<sup>8</sup>

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<sup>8</sup> Corning contends, in reply, that Respondents “presented no evidence that Shaohong developed its own technology at all” and that Mr. Gordon’s testimony took certain language from a Corning discovery request out of context. *See* CRB at 73.

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Respondents argue that even if Corning's 25-year development time were correct, the length of time should be "offset by the amount of time Caihong has been developing the technology at issue, specifically, the last 23 years" and that any exclusion order should terminate in 2028 at the latest.<sup>9</sup> *Id.* at 162-63. "That would have been the result had Corning timely filed suit in 2008, and Corning should not receive a windfall of lengthy exclusion order decades after Caihong invested a fortune in developing its technology." *Id.* at 163.

Staff contends that the Commission "has not required a determination of the length of time it would take to develop each misappropriated trade secret in order to ascertain the appropriate length of an exclusion order." SIB at 132 (citing *Certain Cast Steel Railway Wheels, Processes for Manufacturing or Relating to Same and Certain Prods. Containing Same*, Inv. No. 337-TA-655, 2010 WL 1055967, at \*4 (Mar. 19, 2010)). Staff argues that Respondents have not offered an alternative theory to Dr. Bocko. *See id.* at 133. "Nonetheless," Staff argues, "given the volume of public information regarding FDM manufacturing systems, including a large number of published patents by Corning and its competitors, it would appear to the Staff that it would take less than 25 years for a competitor to achieve commercial production of LCD glass." *Id.* at 133. Staff notes that "Dr. Bocko testified that there were no patents on the Corning fusion draw process in the 1960s when Corning began its 25 year development process." *Id.* (citing Tr. (Bocko) at 719:7-9). Staff also argues that it took NEG approximately 11 years to independently develop an overflow process, and that the Daejeon District Court's holding that Corning's trade

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<sup>9</sup> Corning argues that this argument by Respondents was waived because it was not in Respondents' prehearing brief and that, in any case, Irico did not independently develop its technology. CRB at 75. While this specific argument was not in Respondents' prehearing brief, the undersigned believes this issue reasonably falls within the scope of Respondents' arguments regarding an appropriate exclusion period. Moreover, the Commission in any event has broad discretion in determining the scope and extent of a remedy based on facts in the record.

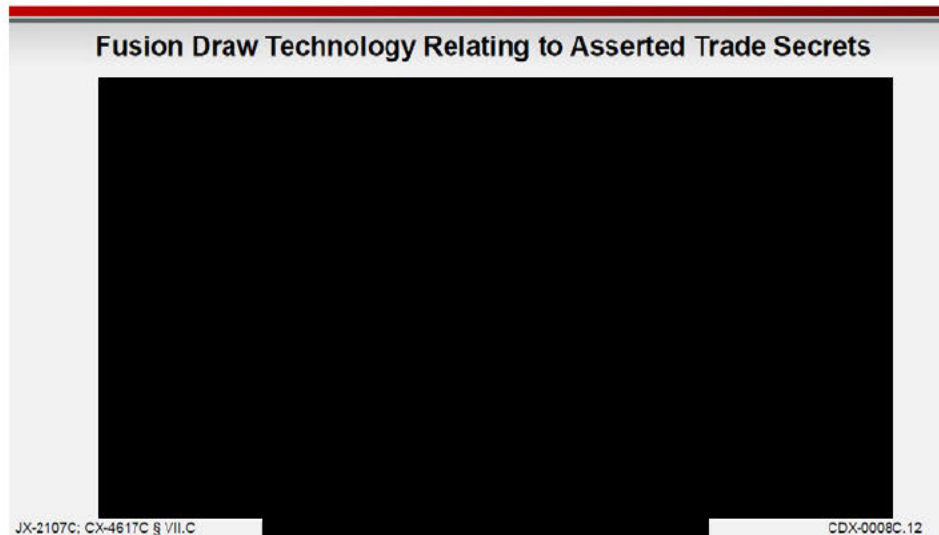
secrets could not be disclosed for 10 years is consistent with this timeframe. *Id.* In view of the evidence, Staff recommends a remedy duration of 10 years.

## 2. Discussion

The Commission has recognized that the duration of a limited exclusion order in a misappropriation of trade secrets case should generally be “the period of time it would have taken respondent independently to develop the technology using lawful means” or a “reasonable research and development period.” *Viscofan, S.A. v. U.S. Int’l Trade Comm’n*, 787 F.2d 544, 550 (Fed. Cir. 1986) (duration of relief is “the period of time it would have taken respondent independently to develop the technology using lawful means”); *Certain Cast Steel Railway Wheels, Processes for Manufacturing or Relating to Same and Certain Prods. Containing Same*, Inv. No. 337-TA-655, 2010 WL 1055967, at \*4 (Mar. 19, 2010) (“*Certain Cast Steel Railway Wheels*”) (“The Commission has based the duration of limited exclusion order in trade secrets investigations on a ‘reasonable research and development period’ or an ‘independent development time’ for the trade secrets at issue.”).

Corning argues here, relying on the testimony of Dr. Bocko, that it took more than 25 years for Corning to develop the technology at issue. As set forth by Dr. Bocko, the development time between the “[e]arly concept of fusion” to the “First LCD glass substrate” (from approximately 1958 to 1984) took 25 years, with this development period including early qualification for automotive safety windshields and an application for sunglasses. *See* Tr. (Bocko) at 650:8-651:12, 655:18-656:12; CDX-0008C.6, 11. Dr. Bocko further identifies a 13-year period between the “[f]irst LCD glass used in customer’s Generation 1 production line” (in 1989) to “Generation 5 LCD glass” (in 2002) and another [REDACTED] for Corning’s LCD business to break even. *See* CDX-0008C.6, 11. Dr. Bocko states that, in his opinion, the first 25-year

period is “what any glass manufacturer would have to go through in order to deliver a functional platform to be able to supply this application.” Tr. (Bocko) at 656:6-8. Dr. Bocko also provided estimates of Corning’s development time for the subcomponents of the FDM as follows:



CDX-0008C.12; Tr. (Bocko) at 657:3-8.<sup>10</sup> Dr. Bocko testified that he also considered the experiences of Corning competitors NEG and Avanstrate, including that NEG had glass making experience going back to the 1970’s, and that AvanStrate (and its predecessors) started working on thin glass for LCD developments in 1965. Tr. (Bocko) at 673:12-674:18. Dr. Bocko further noted that there have been failed attempts by companies to break into manufacturing of LCD glass. *See id.* at 674:19-675:16.

The undersigned does not find Dr. Bocko’s testimony regarding Corning’s development activities persuasive as to a “reasonable research and development period” here.

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<sup>10</sup> Dr. Bocko testified that the Design Trade Secrets relating to different parts of the FDM were developed as part of a whole. *See* Tr. (Bocko) at 696:5-22. Regarding the Operational Trade Secrets, Dr. Bocko testified that operational knowledge was developed “in parallel.” *See* Tr. (Bocko) at 700:22-701:3.

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As an initial matter, Dr. Bocko cited no Corning development documents supporting his estimated timetable for the FDM and its components and he did not start working at Corning until 1979 (that is, well after the asserted 25-year development period between 1958 and 1984 began). *See* RIB at 3-4, 161; Tr. (Bocko) at 638:8-9, 690:12-691:18; Tr. (Gordon) at 1253:21-25. Moreover, as indicated by Corning's own website, Corning's fusion draw equipment "sat virtually idle for years" during this period. *See* RX-1297 (stating that, after Corning "devised a novel process that flowed molten glass into an open trough shaped like a large V," the "fusion draw equipment sat virtually idle for years"); Tr. (Flasck) at 1081:14-1082:1; Tr. (Gordon) at 1254:1-1256:12. These pre-1989 circumstances are not applicable to the 2007 time period (*i.e.*, the alleged time of misappropriation for the Design Trade Secrets and Operational Trade Secret for which a violation was found). *See* CIB at 37 (alleging Caihong acquired the Design Trade Secrets in 2007); *id.* at 39 (alleging Caihong acquired the Operational Trade Secrets in 2007).<sup>11</sup>

Further, Dr. Bocko's estimates relate to research and development time for the FDM as a whole, even though the evidence of record does not show misappropriation of the whole FDM design, but rather substantial use of Corning trade secrets relating to certain components thereof.<sup>12</sup> Dr. Bocko also does not persuasively address the large amount of information in the

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<sup>11</sup> It is reasonable to assess research and development time under circumstances of high demand, as this was the situation in the 2007 time frame. *See* CIB at 29 (stating that, by the early 2000's, flat-panel displays were making CRTs obsolete and that the Chinese government identified the development of a flat panel display industry, including LCD glass, as a strategic priority); *see generally* Tr. (Flasck) at 1084:24-1087:6 (discussing importance of demand to development). The evidence shows that the market demand for Gen 1 LCD glass began around 1989. *See* RDX-0005C.6; Tr. (Flasck) at 1098:6-18; *see also id.* at 1083:4-14.

<sup>12</sup> The Final ID did not find that Caihong performed no development work at all, only that the evidence shows substantial use of certain Corning trade secrets to, *inter alia*, accelerate research and development. *See* Final ID at 43; CIB at 24. For example, the evidence does not show misappropriation, by a preponderance of the evidence, with respect to Design Trade Secrets TS 12.1 (overall assembly of FDM), TS 20.1 (edge directors), and TS 52.2 (pulling machines) or Operational Trade Secrets TS 59, TS 61, TS

public domain, including through Corning’s own patent publications, relating to the fusion draw technology components for which a violation was found. *See* Tr. (Bocko) at 704:17-705:19; SIB at 133 (“given the volume of public information regarding FDM manufacturing systems, including a large number of published patents by Corning and its competitors, it would appear to the Staff that it would take less than 25 years for a competitor to achieve commercial production of LCD glass”). These publications, while lacking the design details provided by the misappropriated Design Trade Secrets, do provide substantial overlapping information regarding fusion draw technology disclosed by Corning (and others) after 1958 and before the alleged misappropriation in 2007.<sup>13</sup> *Cf. General Elec. v. Sung*, 843 F. Supp. 776, 780-81 (D. Mass. 1994) (imposing seven-year injunction for trade secret misappropriation, from date of court’s order, where original development took “more than twenty years,” after taking into account “the technological advances that have occurred and come into the public domain during the

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62, and TS 64. Corning itself acknowledges that the appropriate length of an exclusion order may depend on the extent of the trade secrets at issue. *See* CRB at 74 n.29 (rejecting guidance of Daiejeon District Court’s 10-year injunction because it “was for only a subset of the trade secrets”).

<sup>13</sup> As discussed in the Final ID, Mr. Gordon provided testimony regarding disclosures in patent publications—including Corning’s publications (and setting aside any Dongxu or Caihong publications)—relating to, *inter alia*, aspects of the muffle (TS 15.1), doghouse (TS 16.1), isopipe (TS 17.1), isopipe compression system (TS 22.1), and muffle door assembly (TS 30.1) trade secrets. *See* Final ID at 64-65 (TS 15.1) (discussing Pitbladdo526 (RX-6298)); *id.* at 71-72 (TX 16.1) (discussing Pitbladdo219 (RX-6312) and Brundage (RX-0959)); *id.* at 78-79 (TS 17.1) (discussing Delia722 (RX-0587) and Pitbladdo219 (RX-6312)); *id.* at 94-95 (TS 22.1) (discussing Cortright (JX-2798)); *id.* at 107-108 (TS 30.1) (discussing Dockerty609 (RX-6297)). Moreover, he also testified about additional patents, published less than 10 years after the alleged misappropriation, relating to aspects of other trade secrets. *See* RX-0589 (published Apr. 7, 2016) (discussed in relation to TS 24.1, FID at 100-101) (applicant Corning); RX-0058 (published Nov. 19, 2015) (Corning patent) (discussed in relation to TS 35.1 and 35.2, FID at 114-15, 121); RX-6316 (Delia020, published Dec. 20, 2012) (discussed in relation to TS 41.1 (transition) and 51 (frame)); Final ID at 127-28, 134. Such publications may also indicate a shorter lead time obtained by Caihong through its misappropriation. *Cf. Certain Crawler Cranes and Components Thereof*, Inv. No. 337-TA-887, Comm’n Op., 2015 WL 13817116, at \*29, \*34, \*45 (May 6, 2015) (taking into account “shorter lead times provided by Sany through misappropriation of Trade Secret Nos., 1, 3, 4, and 6” where Trade Secret No. 3 was published in a patent application 18 months after the alleged misappropriation).

interceding decades since GE and its competitors began developing the technology”). Similarly, Dr. Bocko’s timeline does not take into account advances in computer modeling that could assist with research and development in the late 2000s. *See* Tr. (Gordon) at 1256:13-1258:16.

Moreover, Corning’s own competitive intelligence reports show that Caihong had the ability to access the expertise of others with knowledge in the field, a factor that would also tend to reduce research and development time. *See* RX-2557C.0041, .0043 (referring to [REDACTED]); Tr. (Bocko) at 708:10-712:3; RX-2661C.0005 ([REDACTED]). Corning reports also show its ability to obtain information about competitors’ designs without (presumably) improper conduct, thus indicating flow of knowledge in the industry. *See* Tr. (Markham) at 360:24-369:6; RX-3895C ([REDACTED]). Dr. Bocko’s suggestion that independent development time would not be affected by the existence of relevant patent publications, or general knowledge of one skilled in the art, was unpersuasive. *See* Tr. (Bocko) at 671:2-672:15, 673:1-11; *General Elec.*, 843 F. Supp. at 780-81.<sup>14</sup>

The undersigned finds that Staff provides a more persuasive data point. Staff, proposing a 10-year exclusion period, notes that the evidence of record shows that NEG required approximately 11 years to develop LCD glass using fusion draw during the 1989-2000 time period. *See* SIB at 134 (citing CX-4795 at 4).<sup>15</sup> In light of this evidence, as well as the additional

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<sup>14</sup> Indeed, as pointed out by Mr. Gordon, one of Corning’s own patent publications, resulting from a PCT application filed in 2015, represented that the “dimensions of the forming body [isopipe], including the length, trough depth and width, and wedge height and width, to name a few, can vary depending on the desired application” and that “[i]t is within the ability of one skilled in the art to select these dimensions as appropriate for a particular manufacturing process or system.” *See* FID at 80 n.52; RDX-0004C.39 (quoting RX-0586 at [0030], applicant Corning, PCT filed Sept. 30, 2015); Tr. (Gordon) at 1159:9-16.

<sup>15</sup> In response, Corning argues that NEG started developing technology to produce LCD glass at least by the early 1970’s and only succeeded commercially in the 2000s and that this supports a longer timeframe.

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public information in patent filings published between 2000 and 2006,<sup>16</sup> and the fact that the misappropriated trade secrets pertain to less than all components of the FDM machine, the undersigned finds that the record reasonably supports an independent development time of approximately 8-9 years as of 2007.<sup>17</sup>

In addition, under the circumstances here, the undersigned believes it may be appropriate to take into account Corning's misleading conduct during the period between 2012 and (at least) 2022, around which time Caihong, according to Corning's briefing, obtained "breakthrough" expansion.<sup>18</sup> By asserting a misappropriation claim now—as opposed to, for example, before Caihong's breakthrough sales—Caihong has been economically prejudiced. *See* Final ID at 254-55 n.162. Given the Commission's discretion in determining the scope and extent of remedy, it may be appropriate to reduce the length of the exclusion order in order to take account of this unfair prejudice (while still addressing Caihong's improper and intentional trade secret

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CRB at 74 (citing CX-4712, CX-4795; Tr. (Bocko) at 670:21-672:7). The evidence does not clearly show when NEG started applying the fusion draw process, in particular, for LCD glass. However, as discussed above, the evidence shows that the demand for Gen 1 LCD glass began around 1989 and that these circumstances differ meaningfully from those in the pre-1989 period. *See* RDX-0005C.6; Tr. (Flasck) at 1098:6-18; *see also id.* at 1083:4-14. Based on the current evidence of record, Staff's assessment is more persuasive.

<sup>16</sup> *See* RX-6298 (Pitbladdo526, published Feb. 13, 2003) (discussed in relation to TS 15.1 (muffle), Final ID at 64-65); RX-6312 (Pitbladdo219, published Jan. 26, 2006) (discussed in relation to TS 16.1 (doghouse) and 17.1 (isopipe), Final ID at 71-72, 78-79); RX-0587 (Delia722, published Oct. 26, 2006 with Corning correspondence address) (discussed in relation to TS 17.1 (isopipe), Final ID at 78-79). Two of these references relate to the isopipe, which Dr. Bravman testified is "perhaps the most important structure within this overall system." Tr. (Bravman) at 484:19-23.

<sup>17</sup> Respondents also refer to a "less than 4 years" development period for "another market entrant, Hunan Shaohong Special Glass Co." to go from "construction to volume production." RIB at 162 (citing RX-0640.17). However, the relevance of "construction" to a reasonable research and development period is unclear.

<sup>18</sup> *See* Final ID at 246-251, 254-55 n. 162; CIB at 157 ("Irico's share of the Gen 8.x glass substrate market grew from 1% in Q1 2021 to 11% in Q4 2024"), 160 ("From mid-2023 to the end of 2024, while Irico's share of the Gen 8.x glass substrate market rose to 11%, Corning's fell from [REDACTED]"), 188 ("Irico itself described 2023 as the 'breakthrough year' for its expansion") (citing CX-0536 at 3).

misappropriation).<sup>19</sup> The undersigned does not agree with Respondents’ suggestions to begin a head-start calculation in 2003 (an approximate 23-year offset from 2026) or 2018 (an approximate 8 year offset), but a more modest offset may be appropriate under the particular circumstances here. *See* RRB at 103. For example, given the evidence of [REDACTED] [REDACTED] (CIB at 188), it may be reasonable to provide an offset of approximately 3 years from the length of an exclusion order.

In light of the above, and based on the current record, the undersigned recommends a limited exclusion order of approximately 5-6 years.

#### **D. Cease and Desist Orders**

Section 337(f)(1) provides that the Commission may issue cease and desist orders to respondents found to be in violation. *See* 19 U.S.C. § 1337(f)(1). “Cease and desist orders are

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<sup>19</sup> *Cf. Rubber Resins and Processes for Manufacturing Same*, Inv. No. 337-TA-849, Comm’n Op., 2014 WL 7497801, at \*44 n.11 (Feb. 26, 2014) (setting term of exclusion order to avoid providing Respondents “profit from any delays in the legal process”). While the Commission in *Rubber Resins* was concerned with an unfair “profit” to Respondents, it could similarly take into account unfair prejudice. The Federal Circuit and Commission, in considering such offsets, have noted that the appropriate remedy depends on the particular facts. *See Certain Processes for the Manufacture of Skinless Sausage Casings and Resulting Product*, Inv. No. 337-TA-169, 1984 WL 273970, at \*11 (Jan. 1, 1984) (deciding that respondent “should not be credited” with time “between the misappropriation and the entry of the Commission’s remedial order” based on “[t]he facts of this investigation”); *Viscofan*, 787 F.2d at 551 (stating that the appropriate starting date for an exclusion order based on trade secret misappropriation “necessarily depends on the facts of the particular case” in affirming the Commission’s approach but discussing prior Federal Circuit misappropriation opinion holding that “the maximum permissible injunction would be eight years from misappropriation (or four years from the date of the preliminary injunction)”). The undersigned notes that, although Caihong waived a laches defense, this does not preclude the Commission from taking into account all relevant factors in the record in determining an appropriate remedy; here, the underlying facts were briefed by the parties in connection with multiple affirmative defenses. *See generally Viscofan*, 787 F.2d at 548 (“the Commission has broad discretion in selecting the form, scope and extent of the remedy”); *Certain Crawler Cranes and Components Thereof*, Inv. No. 337-TA-887, Comm’n Op., EDIS Doc. ID 556530, at 70 (May 6, 2015) (adopting length of exclusion order for trade secret misappropriation based on “a balancing of a totality of the evidence presented”); *cf. Petrella v. Metro-Goldwyn-Mayer, Inc.*, 572 U.S. 663, 686-87 (2014) (reversing application of laches to bar copyright suit but noting that the district court could take account of delay and surrounding circumstances in determining remedy).

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generally issued when, with respect to the imported infringing products, respondents maintain commercially significant inventories in the United States or have significant domestic operations that could undercut the remedy provided by an exclusion order.” *Certain Arrowheads with Deploying Blades & Components Thereof & Packaging Therefor*, Inv. No. 337-TA-977, Comm’n Op., 2017 WL 11261373, at \*10 (Apr. 28, 2017); *see also Certain Electric Skin Care Devices, Brushes & Chargers Therefor, & Kits Containing the Same*, Inv. No. 337-TA-959, Comm’n Op., 2017 WL 8683854, at \*15 (Feb. 13, 2017) (same).

Corning contends that a CDO should be issued against TCL based on a stipulation of [REDACTED] CIB at 198 (citing JX-2753C, JX-2755C, Ex. B (TCL)). Corning also contends that CDOs are warranted for Caihong Display, CHOT, and CSOT because a risk of circumvention exists. *Id.* at 198-199; *see also* CRB at 75 (citing Comm’n Op. in *Balanced Armatures* investigation). Respondents contend that a CDO is not appropriate as to Caihong Display, CHOT, or CSOT, “[REDACTED] RIB at 164. Respondents acknowledge that TCL stipulated to inventory in the U.S. *Id.* Respondents contend that *Balanced Armature Devices* is inapposite because the foreign companies in that investigation were parent companies of U.S. entities that maintained inventory of the accused products. RRB at 106.

Staff supports a CDO as to TCL. SIB at 136. With respect to Caihong Display, CHOT, and CSOT, Staff argues that Corning has not identified sufficient evidence. *See id.*

The undersigned agrees with Staff that a CDO should be issued as to Respondent TCL but not as to the other Respondents.

**E. Bond**

During the 60-day period of Presidential review, imported articles subject to an exclusion order are entitled to conditional entry under bond. 19 U.S.C. § 1337(j)(3). The amount of the bond must be an amount sufficient to protect the complainant from any injury. 19 U.S.C. § 1337(j)(3); 19 C.F.R. § 210.50(a)(3). “The Commission typically sets the bond based on the price differentials between a respondent’s and a complainant’s products or based on a reasonable royalty rate.” *Certain Oil-Vaping Cartridges, Components Thereof, and Prods. Containing the Same*, Inv. No. 337-TA-1286, Comm’n Op., EDIS Doc. ID 801339, at 23 (Aug. 1, 2023); *see also Certain Light-Based Physiological Measurement Devices and Components Thereof*, Inv. No. 337-TA-1276, Comm’n Op., EDIS Doc. ID 808521, at 119 (Nov. 14, 2023) (Commission may use reasonable royalty rates to set bond); *Certain Non-Volatile Memory Devices and Prods. Containing the Same*, Inv. No. 337-TA-1046, Comm’n Op., EDIS Doc. ID 659979, at 67 (Oct. 26, 2018) (same). The complainant “bear[s] the burden of establishing the need for a bond amount in the first place.” *Certain Non-Volatile Memory Devices*, Comm’n Op. at 68.

With respect to Caihong Display, Corning argues that the bond “should be set at 9.8% of Corning’s sales price, the difference between [REDACTED]

[REDACTED] CIB at 199.

As to the Downstream Respondents, Corning argues that the bond should be set at 100% because “the lack of comparable price or royalty data for the Downstream Respondents did not permit [Mr. Fischel] to calculate a price differential.” *Id.* at 199-200; *see also* CRB at 75 (same).

Respondents argue that “Corning offered no evidence in support of a bond at the hearing and has therefore waived any argument as to a particular bond rate”; and that “[t]here is no evidence of direct competition between Corning and Caihong in the United States, as neither

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company imports its own glass into the U.S.” and thus “Corning fails to provide any evidence demonstrating that a bond should be anything other than 0%, as there are no ‘imports’ from Caihong to mitigate.” RIB at 164. Respondents also argue that Corning’s suggested bond rate of 9.8% is based on “an apples-to-oranges price comparison between different panel makers, who reach price agreements on an individual basis,” that “a comparison of prices for LCD glass substrates sold to panel makers (all of whom are outside the U.S.) is the wrong set of prices for purposes of bond,” that “[t]he correct comparison is the price differential between products containing Corning versus Caihong glass upon importation and sale in the United States,” but that “there is no evidence of any such price differential in this case” and that “the evidence suggests that the prices are exactly the same regardless of the glass used.” *Id.* at 165; *see also* RRB at 106-07 (same).

With respect to Caihong Display, Staff argues that “[t]he evidence shows that Corning and Caihong are direct competitors with respect to the glass substrates at issue in this investigation and, based on a price differential analysis, bond should be set at 9.8% to prevent harm to Corning during the Presidential review period.” SIB at 138. As to the Downstream Respondents, Staff argues that “Corning failed to meet its burden to establish support for a bond of 100%” because “Corning has not set forth any analysis comparing prices of imported goods with Corning glass substrates versus Caihong glass substrates, nor does it explain or identify any evidence to show why it would be impractical to do so,” and “while Corning does fault Respondents for failing to provide the discovery needed to conduct such an analysis,” Corning “has not shown that it took appropriate steps to obtain such discovery.” *Id.* at 139.

In the event a violation is found, the undersigned recommends a bond rate of 9.8% during the Presidential review period. The record shows that the price differential between the substrate

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glass sold by Corning and that sold by Caihong is 9.8%. *See* Final ID at 226-34; CX-4666C.

While the application of a bond is applied to imported articles (which the evidence shows are downstream electronic devices such as television sets, not substrate glass),<sup>20</sup> the undersigned agrees with Staff that Corning did not present sufficient evidence to justify a bond rate of 100%. *See* SIB at 138-39. A bond rate of 9.8% appears best supported by the evidence of record.

**SO ORDERED.**

  
Monica Bhattacharyya  
Administrative Law Judge

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<sup>20</sup> *See* Tr. (Hudson) at 791:23-792:2; RIB at 64.