

*In the Matter of*

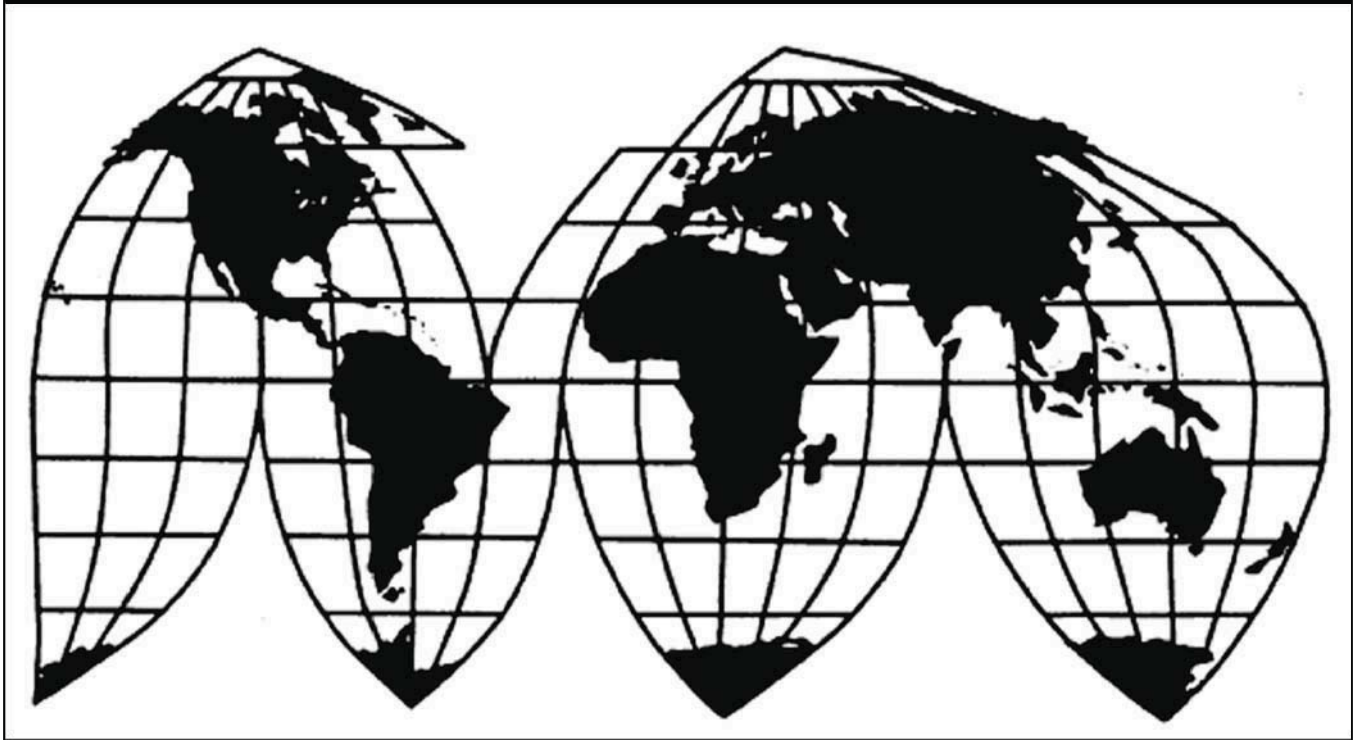
**Certain R-134a Coolant (Otherwise  
Known as 1,1,1,2-Tetrafluoroethane)**

Investigation No. 337-TA-623

Publication 4150

December 2010

**U.S. International Trade Commission**



Washington, DC 20436

# **U.S. International Trade Commission**

## **COMMISSIONERS**

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United States International Trade Commission  
Washington, DC 20436**

# U.S. International Trade Commission

Washington, DC 20436  
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**Certain R-134a Coolant (Otherwise  
Known as 1,1,1,2-Tetrafluoroethane)**

Investigation No. 337-TA-623







**UNITED STATES INTERNATIONAL TRADE COMMISSION**  
**Washington, D.C. 20436**

**In the Matter of**

**CERTAIN R-134a COOLANT  
(OTHERWISE KNOWN AS 1,1,1,2-  
TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623  
Enforcement Proceeding**

**NOTICE OF COMMISSION DETERMINATION NOT TO REVIEW AN  
ENFORCEMENT INITIAL DETERMINATION FINDING NO VIOLATION OF A  
CONSENT ORDER; TERMINATION OF THE ENFORCEMENT PROCEEDING**

**AGENCY:** U.S. International Trade Commission.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that the U.S. International Trade Commission has determined not to review the enforcement initial determination (“EID”) issued by the presiding administrative law judge (“ALJ”) on September 21, 2009 in the above-captioned investigation, finding no violation of a September 11, 2008 consent order.

**FOR FURTHER INFORMATION CONTACT:** Michelle Walters Klancnik, Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 708-5468. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server at <http://www.usitc.gov>. The public record for this investigation may be viewed on the Commission’s electronic docket (EDIS) at <http://edis.usitc.gov>. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission’s TDD terminal on (202) 205-1810.

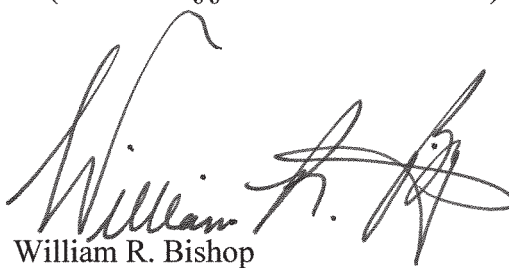
**SUPPLEMENTARY INFORMATION:** The Commission instituted this enforcement proceeding, based on a complaint filed by INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor Americas L.L.C. (“INEOS”). The complaint alleged that respondent Sinochem Environmental Protection Chemicals (Taicang) Co. Ltd. (“Sinochem (Taicang)”) violated the Commission’s September 11, 2008 Consent Order. The Commission referred the proceeding to the Chief ALJ, who held a prehearing conference and evidentiary hearing on June 22, 2009 with all parties participating.

On September 21, 2009, the ALJ issued the subject EID, finding that respondent Sinochem (Taicang) did not violate the Consent Order. On October 6, 2009, INEOS filed a petition for review challenging the ALJ's conclusion. On October 13, 2009, respondent Sinochem (Taicang) and the Commission investigative attorney each filed oppositions to INEOS's petition.

The Commission has determined not to review the EID.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in sections 210.42-46 and 210.75 of the Commission's Rules of Practice and Procedure (19 C.F.R. §§ 210.42-46 & 210.75).

By order of the Commission.



William R. Bishop  
Acting Secretary to the Commission

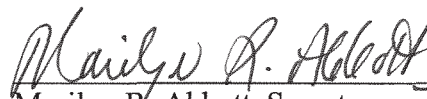
Issued: November 23, 2009

**CERTAIN R-134a COOLANT**  
**(otherwise known as 1,1,1,2-tetrafluoroethane)**

**337-TA-623**  
**(Enforcement Proceeding)**

**CERTIFICATE OF SERVICE**

I, Marilyn R. Abbott, hereby certify that the attached **NOTICE OF COMMISSION DETERMINATION NOT TO REVIEW AN ENFORCEMENT INITIAL DETERMINATION FINDING NO VIOLATION OF A CONSENT ORDER; TERMINATION OF THE ENFORCEMENT PROCEEDING** issued on February 18, 2009, has been served by hand upon the Commission Investigative Attorney, Thomas S. Fusco, Esq., and the following parties as indicated, on November 23, 2009

  
Marilyn R. Abbott, Secretary *JW*  
U.S. International Trade Commission  
500 E Street, SW  
Washington, DC 20436

**On Behalf of Complainants Ineos Fluor Holdings Ltd.,  
Ineos Fluor Ltd., and Ineos Fluor Americas LLC:**

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- Via Hand Delivery  
 Via Overnight Mail  
 Via First Class Mail  
 Other: \_\_\_\_\_

**On Behalf of Respondents Sinochem Modern  
Environmental Protection Chemicals (Xi'an) Co., Ltd.;  
Sinochem Ningbo Ltd.; Sinochem Environmental  
Protection Chemicals (Taicang) Co., Ltd.; and,  
Sinochem (U.S.A.) Inc.:**

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 Via Overnight Mail  
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**PUBLIC VERSION**

UNITED STATES INTERNATIONAL TRADE COMMISSION  
Washington, D.C.

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In the Matter of )

CERTAIN R-134a COOLANT )  
(OTHERWISE KNOWN AS 1,1,1,2- )  
TETRAFLUOROETHANE) )

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Investigation No. 337-TA-623  
Enforcement Proceeding

Enforcement Initial Determination

This is the administrative law judge's Enforcement Initial Determination (EID), pursuant to the Commission Order of February 18, 2009. The administrative law judge, after a review of the record developed, finds inter alia that the enforcement respondent has not violated the Consent Order issued by the Commission on September 11, 2008. This is also the administrative law judge's recommendation, pursuant to said Order, that no enforcement measures are appropriate should the Commission find a violation of said Consent Order.

2009 OCT -7 PM 1:54  
OFFICE OF THE SECRETARY  
U.S. INTERNATIONAL TRADE COMMISSION

## TABLE OF CONTENTS

### OPINION

I.	Procedural History .....	1
II.	Jurisdiction .....	6
III.	Experts .....	6
IV.	The Accused Shipment .....	6
V.	Facilities In China .....	21
VI.	Remedy .....	25
	CONCLUSIONS OF LAW .....	29
	ORDER .....	29

## ABBREVIATIONS

CBr	Complainants' Post-Hearing Brief
CDX	Complainants' Demonstrative Exhibit
CFF	Complainants' Proposed Findings of Fact
CORFF	Complainants' Objections To RFF
COSFF	Complainants' Objections To Staff's Proposed Findings of Fact
CRBr	Complainants' Post-Hearing Reply Brief
CRRFF	Complainants' Proposed Rebuttal Findings to RFF
CRSFF	Complainants' Proposed Rebuttal Findings To SFF
CX	Complainants' Exhibit
JX	Joint Exhibit
RBr	Respondent's Post-Hearing Brief
RDX	Respondent's Demonstrative Exhibit
RFF	Respondent's Proposed Findings of Fact
ROCF	Respondent's Objections To Complainants' Proposed Findings of Fact
ROSFF	Respondent's Objections To Staff's Proposed Findings of Fact
RRBr	Respondent's Post-Hearing Reply Brief
RRCFF	Respondent's Proposed Rebuttal Findings To CFF
RRSFF	Respondent's Proposed Rebuttal Findings To SFF
RX	Respondent's Exhibit
SBr	Staff's Post-Hearing Brief
SFF	Staff's Proposed Findings of Fact

SRBr Staff's Post-Hearing Reply Brief

SX Staff's Exhibit

Tr. Prehearing and Hearing Transcript



## I. Procedural History

On December 12, 2008, complainants INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor America L.L.C. (INEOS) filed a complaint, requesting that the Commission institute a formal enforcement proceeding under Commission rule 210.75 to investigate an alleged violation of a September 11, 2008 Consent Order relating to an “old” process, and involving (1) an accused shipment of the coolant R-134a and (2) facilities in China. The complaint named a single respondent, Sinochem Environmental Protection Chemicals (Taicang) Co. Ltd. (Sinochem Taicang). By notice, which issued on February 18, 2009, the Commission instituted a formal enforcement proceeding relating to said September 11, 2008 Consent Order. The following private entities were named as parties to the formal enforcement proceeding: (1) complainants and (2) respondent Sinochem Taicang.

In the ORDER accompanying said notice, the Commission stated, inter alia:

3. The formal enforcement proceeding is hereby certified to the chief ALJ, Chief Judge Paul J. Luckern, who shall designate a presiding ALJ for this proceeding for issuance of an enforcement initial determination (“EID”). The presiding ALJ is directed to set a target date for completion of these proceedings within forty-five (45) days of institution in accordance with 19 C.F.R. § 210.5 l(a).
4. The presiding ALJ, in his discretion, may conduct any proceedings he deems necessary, including issuing a protective order, holding hearings, taking evidence, and ordering discovery consistent with Commission rules to issue his EID. The EID will rule on the question of whether Sinochem (Taicang) has violated the September 11, 2008 consent order issued in the above-captioned investigation. All defenses not barred by claim preclusion may be raised in this proceeding. The presiding ALJ shall also recommend to the Commission what enforcement measures are appropriate if Sinochem (Taicang) is found to violate the Commission’s consent order. The presiding ALJ, in his discretion, may also conduct any proceedings he deems necessary, including taking evidence and

ordering discovery, to issue his recommendations on appropriate enforcement measures.

The Chief Judge was designated the presiding administrative law judge for issuance of the EID and any recommended enforcement measures.

As to the origin of the September 11, 2008 consent order, Sinochem Modern Environmental Protection Chemicals (Xi'an) Co., Ltd., Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd., Sinochem Ningbo Ltd., and Sinochem (U.S.A.), Inc., parties who were respondents in the underlying "violation phase" investigation, filed Motion No. 623-28 titled "Motion For Partial Termination Based Upon a Consent Order" in said underlying investigation on August 11, 2008. Motion No. 623-28, inter alia, defined a "new" process and an "old" process and requested termination of the underlying investigation with respect to the "old" process. A document titled "Consent Order Stipulations" was filed concurrently on August 11, 2008 by said respondents. On August 13, 2008, complainants advised the administrative law judge that "the parties have had extensive discussions in order to fashion a proposed consent order and consent order stipulation that complainants would not oppose. The parties have reached agreement as to the language of the order and stipulation..." (Complainants' Response to Motion No. 623-28.) Also on August 13, 2008, the staff filed a response to Motion No. 623-28 in support of a "revised" proposed Consent Order and Consent Order Stipulations. (Staff's Response to Motion No. 623-28 at 2.) On August 15, 2008, said respondents filed Motion No. 623-30, titled "Unopposed Motion for Partial Termination of Investigation Based On Entry of Consent Order Specific to the Old Process," which Motion No. 623-30 also contained a document titled "Consent Order Stipulations." On August 18, 2008, said respondents filed a

public version of Motion No. 623-30, which public version contained a version of the document titled Consent Order Stipulations dated August 18, 2008. Filed concurrently with said public version, on August 18, 2008, was a confidential version of the Consent Order Stipulations and Confidential Appendix IA, IB, and II to the Unopposed Motion for Partial Termination of Investigation Based on Entry of Consent Order Specific to the “Old” Process. Said confidential August 18, 2008 version of the Consent Order Stipulations (Consent Order Stipulations), which the parties to the formal enforcement proceeding rely on, is included in CX-1003. Said Consent Order Stipulations mentions conversion to the New Process in the following language in a “whereas” clause in the preamble:

WHEREAS, Respondents agree that, upon entry of the Consent Order, Respondent Sinochem Taicang will convert all of its plants for the manufacture of R-134a to the New Process and that only R-134a coolant manufactured by Sinochem Taicang using the New Process will be imported into the United States, sold for importation, or sold after importation within the United States and that any R-134a product manufactured by Sinochem Xi’an will not be made available for introduction into the United States unless and until all its plants for the manufacture of R-134a at Sinochem Xi’an are converted to the New Process;<sup>1</sup>

Following said “whereas” clause, the Consent Order Stipulations states:

NOW THEREFORE, pursuant to Commission Rule 210.21(c)(1)(ii) and (c)(3)(i), the Respondents stipulate and agree as follows in connection with their motion to Terminate the investigation in part based on a Consent Order:

There then follows actual stipulations which include:

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<sup>1</sup> The contents of the WHEREAS clause regarding conversion of the respondent’s plants in the preamble of the Consent Order Stipulations did not change substantively in any of Motion Nos. 623-28 filed August 11, 2008, 623-30 filed August 15, 2008 and the public version of 623-30 filed August 18, 2008.

(3) Effective immediately upon entry of the Consent Order, Respondents, including their officers, directors, employees, agents, and subsidiary entities that they control, agree, upon entry of the Consent Order, that they will not directly or indirectly import into the United States, sell for importation into the United States, sell within the United States after importation or knowingly aid, abet, encourage, participate in, or induce the sale for importation, importation into the United States or sale in the United States after importation of R-134a coolant manufactured by the old process.

(CX-1003.)

On August 20, 2008, an Initial Determination (Order No. 25) issued in the violation phase of Investigation No. 337-TA-623 which granted said respondents' unopposed Motion No. 623-28 and terminated the investigation with respect to the Old Process. Order No. 25 stated that "[e]ntry of the proposed [Consent] Order ... renders moot the dispute between the parties with respect to the relief sought from the Commission by complainants with respect to the Old Process" and that "both complainants and respondents agree to the termination of the investigation as to said OLD Process." (Order No. 25 at 2-3.) The Commission determined not to review Order No. 25 and issued the subject Consent Order on September 11, 2008. CX-1002 is the Consent Order issued by the Commission.<sup>2</sup>

In the Enforcement Proceeding, Order No. 31, which issued on March 9, 2009, a procedural schedule proposed by the parties was adopted. Order No. 32, which issued on March

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<sup>2</sup> The Consent Order (CX-1002) includes a stipulation that says:

(11) Respondents expressly reserve the right to sell for importation to the United States, import, or sell for importation within the United States R-134a coolant manufactured by the respondents' New Process (as defined in the Consent Order Stipulation).

(CX-1002.002.)

3, 2009, set a target date of January 21, 2010 which meant that the EID referenced in the Commission Order of February 18, 2009 should be filed no later than September 21, 2009.

A prehearing conference and an evidentiary hearing were conducted on June 22, 2009 with all parties participating. At the prehearing conference, respondent's Motion In Limine No. 623-48 to exclude testimony of Geosits<sup>3</sup> was mooted (Tr. at 27), respondent's Motion In Limine No. 623-47 involving Geosits was denied (Tr. at 32), respondent's Motion In Limine No. 623-49 to exclude arguments and evidence relating to nonconversion of respondent's plant was denied (Tr. at 39), and complainants' Motion In Limine No. 623-51 and respondent's Motion In Limine No. 623-50 involving preclusion of certain proffered evidence were mooted (Tr. at 47). Post-hearing submissions have been made by all parties. The matter is now ready for a final decision.

The EID is based on the record compiled at the hearing and the exhibits admitted into evidence. The administrative law judge has also taken into account his observation of the witnesses who appeared before him during the hearing. Proposed findings of fact submitted by the parties not herein adopted, in the form submitted or in substance, are rejected as either not supported by the evidence or as involving immaterial matters and/or as irrelevant. Certain findings of fact included herein have references to supporting evidence in the record. Such references are intended to serve as guides to the testimony and exhibits supporting the findings of fact. They do not necessarily represent complete summaries of the evidence supporting said findings.

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<sup>3</sup> Peter Geosits is the Americas' Commercial Director for INEOS Fluor Americas LLC. (CFF 51 (undisputed).)

## II. Jurisdiction

As recited in the confidential Consent Order Stipulations, “[t]he Commission has in rem jurisdiction over, inter alia, R-134a coolant made by [Sinochem Taicang’s] Old Process, which is a subject of this [violation phase] investigation and the Commission has in personam jurisdiction over [Sinochem Taicang] for purposes of this Consent Order.” (CX-1003C.003.)

## III. Experts

Frank Reynolds was qualified as respondent’s expert in customs and international trade matters. (Tr. at 206.) No other expert was qualified.

## IV. The Accused Shipment

With respect to the accused shipment of the coolant R-134a, complainants, in support of their enforcement complaint, argued that Sinochem Taicang and Stoner, Inc. (Stoner) entered into a sales contract for the purchase of R-134a manufactured using Sinochem Taicang’s “old” process; that a shipment of R-134a manufactured by Sinochem Taicang using the “old” process was imported on September 11, 2008 and delivered to Stoner’s facility on September 15, 2008; that the Stoner shipment was delivered “DDP Quarryville”<sup>4</sup> and thus Sinochem Taicang was

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<sup>4</sup> According to a document titled “Incoterms 2000: ICC Official Rules for the Interpretation of Trade Terms” (JX-52), “DDP” is an acronym for Delivery Duty Paid, which means:

[t]hat the seller delivers the goods to the buyer, cleared for import, and not unloaded from any arriving means of transport at the named place of destination. The seller has to bear all the applicable costs and risks involved in bringing the goods thereto including, where applicable, any “duty” (which term includes the responsibility for and the risks of the carrying out of customs formalities and the payment of formalities, customs duties, taxes and other charges) for import into the country of destination.



responsible for the shipment until it reached Stoner on September 15, 2008; and that title over the Stoner shipment did not transfer from Sinochem Taicang to Stoner until the shipment was delivered on September 15, 2008, which is after the issuance of the consent order on September 11, 2008. (CBr at 17-27.)

Respondent argued that the accused shipment did not violate the consent order. In support, it is argued that the sale and importation took place before September 11, 2008; that “DDP” and other Incoterms<sup>5</sup> do not govern transfer of title; and that any assertion that said sale was not complete by September 11, 2008 is wrong. (RBr at 21-7.)

The staff argued that the shipment at issue did not constitute a consent order violation. (SBr at 2-8.)

Referring to the accused shipment, during January and February 2008, Stoner, located in Quarryville, PA, entered into negotiations with respondent for the purchase of R-134a (CX-1114C at 001-2).<sup>6</sup> It is undisputed that on March 19, 2008 a contract was executed between

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(JX-52 at 122; see also CFF 135; RFF.III.20.)

<sup>5</sup> Incoterms are a series of scenarios that describe obligations that buyers and sellers have to each other in the sale of tangible, portable goods; they describe what obligations the seller has to the buyer and what obligations the buyer has to the seller. (RFF.III.23 (undisputed).)

<sup>6</sup> CX-1114C is an e-mail between a Mr. Zechman and Dave Dillon regarding the purchase and shipment of R-134a from respondent. (CFF 107 (undisputed).) Zechman is Stoner’s Chief Operating Officer and testified on behalf of Stoner and himself. (CFF 96, 97 (all undisputed).) Zechman testified that he is involved in deciding from which sources Stoner purchases R-134a:

{

}

Stoner and the respondent for the sale of R-134a (1,1,1,2-tetrafluoroethane), which was a master contract for several deliveries; and that said sales contract between the respondent and Stoner has a section called “property rights” (at JX-54C.002) which states that “the goods remain the property of the seller until the complete payment of the price or as otherwise agreed.” (SFF I.9, I.10, RFF. III.1 (all undisputed).)<sup>7</sup>

The administrative law judge finds that the coolant R-134a involved in said shipment was shipped from China, and the shipment arrived in the United States all prior to September 11, 2008. See JX-54C (March 10, 2008 sales contract); RX-506C (July 18, 2008 purchase order for accused shipment); RX-543C (July 29, 2008 letter of credit for{ } for the accused shipment); JX-59C (July 30, 2008 commercial invoice for the accused shipment); JX-58C (July 30, 2008 packing list for the accused shipment); JX-60C (bill of lading showing shipment loaded on vessel on August 4, 2008, freight prepaid through to Quarryville, PA); RX-505C (National Penn Bank shows Stoner’s account debited for draft amount of{ } for accused shipment on August 18, 2008); RX-547C (credit advice showing{ } (less banking charges) put into respondent’s account on August 19, 2008); JX-62C (Customs “Entry/Immediate Delivery” form showing release of the accused shipment by Customs on September 5, 2008, an entry date of

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{ }

(JX-66C (Zechman Dep.) at 10.) He further testified that Stoner started purchasing R-134a from Sinochem { } (JX-66C (Zechman Dep.) at 11, 17.) He also testified that Stoner became aware that respondent manufactured R-134a when Stoner was { } (JX-66C (Zechman Dep.) at 11.)

<sup>7</sup> Stoner does not { } (CFF 101, 102 (all undisputed).)



September 5, 2008, and an arrival date of September 9, 2008); JX-61C (September 19, 2008 “Entry Summary” Customs form showing an export date of August 4, 2008, an entry date of September 5, 2008, and an import date of September 9, 2008 for accused shipment); RX-564 (“Trade Inflo” report showing September 9, 2008 arrival date). The only dispute revolves around whether the transaction involving said shipment was or was not completed before the issuance of the September 11, 2008 Consent Order.

Complainants, in support of their allegations in CRRFF III.2A through CRRFF III.2I, asserted that the “Terms of Payment” in the March 19, 2008 contract contemplate that complete payment for any shipment is not due until {

} citing JX-54C at 001; that the term {

}citing JX-54C at 002-3; that

international sales contracts are governed by the law chosen by the parties; that said March contract specified that {

} that the CISG does not address the transfer of title; that according to Article 133 of the Contract Law of the People’s Republic of China “[t]he title of the object shall be transferred upon the delivery of the object unless other laws have a different provision or the parties have a different agreement”; and that consistent with Chinese Law, Sinochem Taicang’s customary practice is to structure its contracts so that transfer of title occurs at delivery.

It is a fact that the March 19, 2008 contract specifically stated under the language “Property rights” that “[t]he goods remain the property of the Seller until the complete payment of the price, or as otherwise agreed.” (JX54C.002 (emphasis added).) There is also unrefuted hearing testimony that respondent and Stoner did not have any agreement to change the default operation of the cited “Property rights” language. Thus Ma Bin, general manager of respondent Sinochem Taicang (Tr at 308) testified:

Q. What is this document?

A. This is a sales contract signed between Sinochem Taicang and Stoner concerning the product 134a.

Q. What is the date of this document?

A. The final signing date of this document is March 10th of 2008.

Q. Turning to the second page of the document, at the sentence under the heading property rights, it states, "the goods remain the property of the seller until the complete payment of the price or as otherwise agreed." What does Sinochem Taicang understand that sentence to mean?

A. According to the owners of Sinochem Taicang, after the full payment from Stoner has been made, the property of the goods will be transferred to the buyers.

Q. You said the property of the goods. What do you mean by that?

A. That means who owns the goods.

Q. That sentence on the second page of the sales contract that we just read concludes with the phrase "or as otherwise agreed."

Did the parties otherwise agree?

A. No, we do not have otherwise agreed.

Q. When was the last sale under this contract made?

A. By the end of July of 2008.

Q. Is it your understanding that this last sale to Stoner is the sale at issue in this proceeding?

A. Yes.

Q. How was this transaction for this last sale to Stoner started?

A. Well, around 20th of July of 2008, Stoner contacted Sinochem Taicang about whether Taicang can provide or deliver XO tank -- ISO tank of 134a on 8th of September of 2008.

Q. How did you receive that notice?

A. They used e-mail to notify me.

Q. Please turn to the Exhibit CX-1019 in your binder. Are these e-mails related to that requested by Stoner?

A. Yes.

Q. What did Sinochem Taicang do in response to that request from Stoner?

A. After we have received the request from Stoner, we contacted shipping company right away, and the answer we get from the shipping company is that as long as the groups can be uploaded on to the ship on 8th of August of 2008, it can guarantee the delivery on 8th of September of 2008.

Q. Did you contact Stoner with that information?

A. We forwarded this information to the company Stoner, and asked them that they can prepare the letter of credit.

Q. Did you receive such a letter of credit?

A. Yes, we have received a letter of credit.

Q. Please turn to Exhibit RX-543C in your binder. What is this

document?

A. This is notification of documentary credit.

Q. Is the letter of credit attached to this notification of documentary credit?

A. Yes.

Q. What is the date of the letter of credit?

A. The letter of credit has been issued on 29th of July of 2008 and has been received on 30th of July of 2008.

Q. What is the number of the letter of credit?

A. The number on the letter of credit is 20800050.

Q. What do you understand are the requirements for payments set out in the letter of credit?

A. According to the payment requirements in the letter of credit, we need to provide a bill of lading, packing list, commercial invoices, and inspection certificate.

Q. Did Sinochem Taicang prepare that documentation?

A. Yes, we have prepared all of that.

Q. I would like you to turn to Exhibit JX-58C in your binder. What is this document?

A. This is a packing list from Sinochem Taicang.

Q. Does this have any connection to the letter of credit we just reviewed?

A. This is a packing list related with this letter of credit.

Q. How do you know it is related with the letter of credit that we just reviewed, which is Exhibit Number RX-543C?

A. On this packing list, there is a number of the letter of credit

which corresponds with the original number of letter of credit, which is 20800050.

Q. What is the date of this document?

A. 30th of July of 2008.

Q. This document was prepared by Sinochem Taicang according to the instructions of the letter of credit?

A. Yes.

Q. I would like you to turn to the tab JX-59C in your binder. What is this document?

A. This is the commercial invoice of Sinochem Taicang.

Q. Is this related to the letter of credit that we viewed a few minutes ago, RX-543C?

A. Yes, this is related with the letter of the credit as is required by the letter of credit.

Q. What is the date of this document?

A. 30th of July of 2008.

Q. When did the shipment to Stoner leave Sinochem Taicang's facility?

A. Approximately by the end of July of 2008.

Q. So where was it first transmitted?

A. First they have been shifted to the shipping company at the port of Shanghai.

Q. Then what happened to the shipment?

A. Then the goods have been uploaded on the shipping vessel and then have been shipped to the United States.

Q. Did you receive any documentation in connection with the

shipment to the United States?

A. Yes, we have received a bill of lading.

Q. Did Sinochem Taicang have any additional involvement with the delivery of the product to Stoner after the shipment left China?

A. No.

Q. I will ask you to turn to tab JX-16 in the binder that you have. What is this document?

A. Bill of lading.

Q. What does it show with respect to the date that the product was shipped from China to the United States?

A. 4th of August of 2008.

Q. How did Sinochem Taicang use this bill of lading in connection with getting paid for this last shipment to Stoner?

A. We have submitted the original bill of lading, packing list, commercial invoice and -- and also the letter of credit to the bank for payment.

Q. When were the originals of those documents delivered to the bank for payment?

A. Should be on 8th or 9th of August of 2008, or maybe even at earlier time.

Q. I would like you to turn to tab RX-547C in your binder. What is this document?

A. This is a payment notice from the bank.

Q.

JUDGE LUCKERN: This was 547C? I have got it. Fine, go ahead, Mr. Menchaca.

BY MR. MENCHACA:

Q. Does this payment notice have any connection to the letter of credit we reviewed earlier, RX-543C?

A. This is the payment notice under the letter of credit numbered 20800050 signed by Sinochem Taicang and Stoner.

Q. When was Sinochem Taicang paid for this last shipment to Stoner?

A. We have received payment on 19th of August of 2008.

(Tr. at 310-17 (emphasis added).) In addition, as respondent's expert Reynolds credibly testified:

Q. Let me show you what has been marked as JX-54C, entitled sales contract. Can you identify that document for me, please?

A. I can. That's a sales contract between Sinochem the Respondent and Stoner, Inc. It was executed on March 19th, 2008, as I see from page 54C.003.

Q. Would you take another look at the date. I think you said the 19th.

A. March 19th, 2008. That is the date it was signed by Mr. Zechman.

Q. Very good. Thank you.

A. The document date was March 10th, 2008. It describes a contract for R-134a. It talks about, I believe it is{ }pounds. My copy is a little blurry here. It gives a price. It gives the term PDD Quarryville, Pennsylvania. It describes the payment as a letter of credit or a deposit. It gives time of shipment that individual notices to ship will be issued.

It covers insurance to be effected by the seller. It has payment conditions. We will see that the payment condition that was selected was a letter of credit.

It has a section called property rights, which is the fourth bullet down on the second page. That is JX-54C.002. Under property rights, 1, 2, it says, "the goods remain the property of the seller until the complete payment of the price or as otherwise

agreed."

Q. Let me stop you there. Did you observe any evidence of an agreement otherwise?

A. I did not.

Q. Now, the contract on page 3, item number 3.

A. Yes.

Q. That references Incoterms. And I will read that it says any reference made in trade terms is deemed to be made to the relevant term of Incoterms published by the International Chamber of Commerce. Is that the publication with which you are involved?

A. It is.

Q. Were you a delegate on behalf of the United States?

A. I was the sole U.S. delegate of that revision.

Q. And you participated in the preparation of Incoterms?

A. I served on the drafting committee for the Incoterms 2000.

Q. Let me reference up above, it says there is a reference to the United Nations Convention on Contracts for the International Sale of Goods, hereinafter referred to as CISG. Do you see that?

A. Yes, I do.

Q. And of what relevance is that?

A. That says that the CISG, which is a treaty between the United Nations and a number of states, including China and the United States, that the treaty covers contracts for the sale of -- for the international sale of goods and that the provisions of that treaty would apply.

Q. Okay. Does the CISG govern property rights and the goods or passage of title?



A. Article 4 of the CISG disclaims property rights of goods and the passage of title.

Q. Now, the Incoterms -- first of all, what is the purpose of Incoterms?

A. Incoterms are a series of scenarios that describe obligations that buyers and sellers have to each other in the sale of tangible, portable goods. They describe what obligations the seller has to the buyer and what obligations the buyer has to the seller.

Q. Do Incoterms govern the transfer of title?

A. Incoterms do not speak to the transfer of title.

Q. Let me direct your attention to JX-52. It says Incoterms 2000.

A. That's correct.

Q. I am putting it here on the ELMO. That's the publication with which you were involved in the preparation of?

A. It is.

Q. Does that publication address the issue of whether Incoterms govern the transfer of title?

A. It addresses the issue and it states that Incoterms do not address the issue of title.

Q. Would you direct us to the page?

A. Yes. It would be JX-52.007, second paragraph, about the sentence beginning "although, Incoterms are extremely important for the implementation of the contract of sale, a great number of problems which may occur in such a contract are not dealt with at all, like a transfer of ownership and other property rights, breaches of contract," and then it goes on from there.

Q. Let me show you publication RX-563 if I could, please. You have a copy in your binder there?

A. I do.

Q. Can you identify what RX-563 is?

A. This is a commentary on Incoterms called ICC Guide to Incoterms 2000. It is written by professor Jan Ramberg and published by the International Chamber of Commerce.

Q. Do you find it is reliable?

A. Yes.

Q. Does the publication 563 address the manner of whether Incoterms govern the transfer of title?

A. It does.

Q. What page?

A. RX-56300011, about the middle of the page, what Incoterms cannot do for you. "Incoterms do not deal with transfer of property rights in the goods."

Q. So what documents in your opinion govern the transfer of ownership with respect to the sale at issue here?

A. My opinion would be that the sales contract itself would and the transportation document, main carriage transportation document, which in this case would be an ocean bill of lading.

(Tr. at 219-25 (emphasis added).) Moreover, as indicated by the testimony of Ma Bin, supra, payment was made to respondent by August 19, 2008. See also RX-547C. Complainants, in CORFF III.10, objected to respondent's proposed finding RFF.III.10 which made reference to payment to respondent by August 19, 2008 on the ground that said finding is "not relevant to any issue in this investigation." In support of CRRFF III.9A, complainants relied on testimony of respondent's expert Reynolds, who testified that "[w]hen property passes, will depend entirely on the contract of sale." (Reynolds, Tr. at 278.) The administrative law judge finds that it is clear from the precise language of the sales contract, as supported by the expert testimony of Reynolds,

supra, that when complete payment to the seller has been made, the goods no longer remain the property of the seller, which in this case would be respondent Sinochem Taicang. (JX-54C.)

Complainants argued that an article by Reynolds explains that “[d]elivery on the buyer’s side means deferred revenue recognition. It also theoretically implies tracing every shipment to determine the date physical delivery takes place.” (CFF 209; see also CX-1048 at 002.)

However, CX-1048, titled “How Choice of Incoterms Affects Revenue Recognition,” is an article directed to accounting and SEC matters. It further states that “Incoterms are silent on ownership transfer.” (CX-1048.001.)

Complainants also argued that even if the administrative law judge were to determine that title over the accused shipment of R-134a passed to Stoner prior to September 11, 2008, that fact would not negate Sinochem Taicang’s violation of the Consent Order; that nowhere in the Consent Order does it say that ownership of the imported R-134a is determinative of whether a violation exists; that on the contrary, the terms of the Consent Order are much broader, and prohibit a wide variety of activities on the part of the Sinochem Taicang; and that specifically, provision (3) of the September 11, 2008 Consent Order states, in relevant part, that:

Respondents, including their officers, directors, employees, agents, and subsidiary entities that they control, agree that, upon entry of the Consent order, that they will not directly or indirectly import into the United States, ... participate in, or induce the sale for importation, importation into the United States or sale in the United States after importation of R-134a coolant manufactured by the Old Process without the consent or agreement of Complainants.

(CBr at 20-21 (emphasis added by complainants).) However, as respondent’s expert Reynolds testified:

Q. All right. Now, you mentioned the term DDP. Can you

explain what that is?

A. Delivery duty paid is an Incoterm. Delivery duty paid says the seller is responsible for all costs through the point, the agreed point of delivery. And the seller is responsible for the delivery of the goods for the agreed point of delivery.

Q. Now, does DDP govern the passage of title?

A. It does not.

(Reynolds, Tr. at 231 (emphasis added).) Also, as Reynolds, further testified, “Incoterms do not speak to the transfer of title.” (See supra.) Moreover, the administrative law judge finds that the record establishes that respondent did not directly or indirectly participate in importation or sale after issuance of the Consent Order, even assuming, arguendo, sale or importation of the accused product was not technically complete at the time the Consent Order issued. Thus, Sinochem Taicang purchased the required insurance for the accused shipment prior to loading and shipping the goods. (Ma Bin, Tr. at 360.) The accused shipment left Sinochem Taicang’s facility by the end of July 2008. (SFF I.24 (undisputed).) On August 4, 2008, the accused shipment was loaded on a vessel at Shanghai, China and left China. (SFF I.33 (undisputed).) Respondent had no involvement with delivery of the accused shipment to Stoner after the shipment left China. (Ma Bin, Tr. at 315-16.) RX-505C shows that National Penn Bank, which was the bank that issued the letter of credit for the accused shipment, is claiming on August 18, 2008 that Stoner’s account was debited for a gross amount of{ } was the draft amount, and references letter of credit number 20800050. (RX-505C; Reynolds, Tr. at 240; see also SFF I.36 (undisputed in relevant part).) The bill of lading was no longer available to Sinochem Taicang as of August 19, 2008 because payment was made through the letter of credit and the letter of credit

stipulated that the original bills of lading had to be presented to the bank to trigger payment under the letter of credit. (Reynolds, Tr. at 242; see also SFF I.41 (undisputed in relevant part).) Respondent further understood that once the commercial invoice, bill of lading, and letter of credit were submitted to the bank for payment on August 8 or 9, 2008, respondent could no longer request return of the accused shipment. (Ma Bin, Tr. at 318.) Respondent could not have stopped the accused shipment as of August 19, 2008, because once the original documents were out of respondent's control, respondent could not stop the shipment and the carrier would make the goods available only to the named consignee shown in field 2 of the bill of lading, which was Stoner. See Reynolds, Tr. at 242; JX-60C; see also SFF I.42 (undisputed in relevant part). As Reynolds testified, respondent no longer owned the accused shipment after payment was received on August 19, 2008. (Reynolds, Tr. at 214-15.) Moreover, respondent understood that, pursuant to the sales contract (JX-54C), after the full payment was made by Stoner, ownership of the goods transferred to the buyer, Stoner (JX-54C; Ma Bin, Tr. at 310-11, 317-318) and respondent believed that the sale to Stoner was completed on August 19, 2008 when the full payment was received. (Ma Bin, Tr. at 320-21.) Moreover, Stoner, the other party to the contract, also believed that the sale was complete after payment was completed. (See JX-66 (Zechman Dep.) at 62-63.) Thus, the administrative law judge finds that all actions taken by respondent with respect to the shipment in issue were completed in August, and in fact no actions could have been taken by respondent to cancel or alter the shipment after August 19, 2009. Hence, he finds that complainants have not established that the accused shipment violated the Consent Order in issue.

#### V. Facilities In China

Regarding facilities in China, complainants argued that the Commission issued the

Consent Order with respect to the “Old” process based on the terms of the Consent Order Stipulations and proposed Consent Order; that “Sinochem Taicang never converted any of its facilities” to the manufacture of R-134a by the “New” process; and that Sinochem Taicang’s failure to abide by the terms of the Consent Order Stipulations is a violation because under basic principles of contract law the Consent Order Stipulations document is part of the Consent Order and independently enforceable, and the only way to sufficiently protect INEOS’ intellectual property rights is by enforcing the Consent Order and Consent Order Stipulations. (CBr at 7-17.)

Respondent argued that the Consent Order does not require respondent to convert to the new process; and that as a matter of law there can be no violation resulting from the alleged failure to convert because the Commission does not enforce Consent Order Stipulations, by civil fine or otherwise, and the Commission does not have the statutory authority and jurisdiction to enforce such extraterritorial conversion. (RBr at 29-35.)

The staff argued that while complainants assert that Sinochem Taicang violated the Consent Order by failing to abide by one of the Consent Order Stipulations, which recited that respondent would convert the Taicang facility from the “old process” to the “new process,” the Commission enforces consent orders, “the Commission itself does not enforce private agreements such as settlement agreements and consent order stipulations” citing Certain Digital Multimeters, and Products with Multimeter Functionality, Inv. No. 337-TA-588, Order No. 17 (unreviewed Initial Determination) (June 14, 2007) (emphasis added), citing Commission rule 210.75 (Digital). (SBr at 8.)

This enforcement proceeding is directed to whether or not a violation of the Consent Order, itself, has occurred. See February 18, 2009 Notice of Institution (“The Commission has



determined to institute a formal enforcement proceeding to determine whether Sinochem (Taicang) is in violation of the Commission’s consent order . . . and what, if any, enforcement measures are appropriate.”). It is a fact that the Consent Order does not recite that respondent must convert its Chinese plant to the New Process. (CX-1002.) Rather, complainants argued that a “whereas” clause recited in the Consent Order Stipulations (CX-1003C) (see Procedural History, supra) must be read into the later explicitly stated “stipulations” and further that those “stipulations,” as rewritten, should then be read into the Consent Order itself. Thus, complainants point to said “whereas” clause that precedes the actual “stipulations” in the Consent Order Stipulations. (See CX-103C.002-03.) However, as the plain language of the Consent Order Stipulations recites, it is only after the “whereas” clause that the actual “stipulations” begin with the language:

NOW, THEREFORE, pursuant to Commission Rule 210.21 (c)(1)(ii) and (c)(3)(i), the Respondents stipulate and agree as follows in connection with their motion to Terminate this investigation in part based on a Consent Order:

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(CX-1003C.003 (emphasis added).) The administrative law judge finds that the Consent Order itself, the entry of which complainants did not oppose, summarizes the set of stipulations on which it is based before reciting the operative provisions of the Order. Significantly, the plant conversion is not recited in the Consent Order’s summary of the stipulations. See Consent Order at JX-51C.014-.017.<sup>8</sup> The stipulation regarding the plant conversion is, in fact, absent from the

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<sup>8</sup> Moreover, the stipulations in the Consent Order are the same as those in the Consent Order Stipulations, and not only do not require respondent to convert any of its plants to any New Process but also does not even mention anything about conversion to any New Process. (CX-1002.001-004.)

Consent Order's recitation of the stipulations which, by contrast, explicitly recites specific stipulations regarding compliance reports and requirements related to invoices. (See JX-51C.014-017.)<sup>9</sup> In fact, the language regarding plant conversion appears only in the WHEREAS clause of the Consent Order Stipulations.<sup>10</sup>

The omission of the plant conversion from the Order is not viewed as a mere oversight, as the Commission does not undertake extraterritorial action. Thus, any plant conversion is not now read into the order. See, e.g., Certain Sildenafil or Any Pharmaceutically Acceptable Salt, Inv. No. 337-TA-489, Order No. 16 (June 20, 2003) (policing conduct outside the U.S. is outside the jurisdiction of the Commission), citing Certain Mechanical Gear Couplings and Components Thereof, Inv. No. 337-TA-343 (Remand), Order No. 18 (unreviewed Initial Determination) (August 20, 1993). Moreover, as the staff has argued, citing Digital, the Commission enforces

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<sup>9</sup> To the contrary, the Consent Order incorporates by reference from the Consent Order Stipulations only the definitions of "Old Process" and "New Process" which appear only in the confidential version of the Consent Order Stipulations. (CX-1002.001-.002.)

<sup>10</sup> With respect to said WHEREAS clause, as Ma Bin testified, when the request for the consent order was filed, Sinochem Taicang intended to convert from the Old Process to the New Process:

- Q. When the request for the consent order was filed, did Sinochem Taicang intend to convert from the old process to the new process?
- A. We do have our plans for that.
- Q. When did Sinochem Taicang intend to convert?
- A. According to our plan, we were planning to convert our process in December of 2008 or in January of 2009.

(Tr. at 329.)



consent orders, but the Commission itself does not enforce private agreements such as settlement agreements and consent order stipulations.

Based on the foregoing, the administrative law judge finds that respondent's failure to convert the Taicang facility to the "new" process does not constitute a violation of the terms of the Consent Order.

## VI. Remedy

Complainants argued that, pursuant to Commission rule 210.75(b)(4)(i) and (iii), upon conclusion of a formal enforcement proceeding, the Commission may "[m]odify a cease and desist order, consent order, and/or exclusion order in any manner necessary to prevent the unfair practices that were originally the basis for issuing such order" and may also "[r]evoke the cease and desist order or consent order and direct that the articles concerned be excluded from entry into the United States;" that due to Sinochem Taicang's calculated refusal to abide by the terms of the Consent Order and Consent Order Stipulations and convert its facilities to the "new" process, the Consent Order does not adequately protect INEOS' intellectual property rights; that in its current form, the Consent Order is virtually impossible to police; and that the Commission should issue a permanent limited exclusion order and cease and desist order against Sinochem Taicang pursuant to Commission rule 210.75(b)(4).

Complainants also argued that section 337(f)(2) makes mandatory the imposition of monetary penalties on a party who violates a cease and desist order, citing 19 U.S.C. § 1337 (f)(2); such that penalties can be up to \$100,000 or twice the value of the articles entered or sold, for each day on which the violation occurred (Id.); that the Federal Circuit has held that Section 337(f)(2) applies with equal force to violations of consent orders, citing San Huan, 161 F.3d at

1357; that in determining the amount of such penalty, the Commission has adopted a six factor test: (1) the good or bad faith of the respondent; (2) the injury to the public; (3) the respondent's ability to pay; (4) the extent to which respondent has benefitted from its violations; (5) the need to vindicate the authority of the Commission; and (6) the public interest, citing Certain Agricultural Tractors under 50 Power Take-Off Horsepower, Inv. No. 337-TA-380, Comm'n Op. (Aug. 18, 1999) (Tractors); that each of the six factors supports imposing civil penalties on Sinochem Taicang for its violations off the Consent Order; that specifically, INEOS submits that civil penalties up to \$100,000 per day should be imposed on Sinochem Taicang for each day it violated the Consent Order by failing to convert its facilities from "old" process to "new" process; and that civil penalties up to \$100,000 should also be imposed on Sinochem Taicang for participating in the sale and importation of a shipment of R-134a to Stoner in violation of the Consent Order. (CBr at 27-28.)

Respondent argued that no fine is warranted or appropriate, even assuming any violation. (RBr at 36-49.)

The staff argued that, given that it submits that there has been no violation of the Consent Order, no enforcement measures are appropriate; that even if a violation had arguably occurred, the evidence did not show bad faith<sup>11</sup> or intent on the part of respondent, harm to the public, or any significant benefit to respondent with regard to the shipment at issue; and that therefore, even

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<sup>11</sup> The staff noted that respondent presented credible testimony from Ma Bin indicating that respondent intended to convert its Taicang facility in accordance with the Consent Order Stipulations at the time it moved for the Consent Order (see fn. 10, supra), that respondent has {

} citing Tr. at 321-330, 335, 339-342, 344, 366, 372-375. (SBr at 11, n. 10.)

if a violation were established based on “this shipment,” the evidence does not support the imposition of substantial civil penalties.<sup>12</sup> (SBr at 11.)

As for complainants’ request for issuance of a permanent limited exclusion order and cease and desist order against respondent Sinochem Taicang, the following testimony of respondent’s employee Ma Bin is unrefuted:

- Q. After the date of the consent order, September 11, 2008, did Sinochem Taicang do anything to ensure compliance with the order?
- A. Yes, first is that we have stopped any SIMS activity of relevant products to the United States.
- Q. Anything else?
- A. The second measure we have taken is that we have -- we required all the documents relevant documents we have with our clients to be stated clearly that any products from Sinochem Taicang cannot be sell -- cannot be sold or resold to the United States. Thirdly, we stopped to provide any quotation to the United States. And fourth measure we have taken is that we decided not to participate in AHR trade exhibition in January of 2009.

(Tr. 321-22.) Thus, pursuant to Commission rule 210.75(b)(4), after the September 11, 2008 date of the Consent Order, the administrative law judge finds that respondent stopped any sales activity of relevant products to the United States; that respondent required all the relevant

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<sup>12</sup> The staff noted that respondent has requested a “dismissal with prejudice” rather than just a finding of no violation, citing respondent’s Pre-Hearing Statement at 2. However, it further noted that it is unclear whether respondent (1) seeks to bar further proceedings based on the single shipment at issue herein, or (2) more broadly seeks to bar subsequent enforcement proceedings based on potential future shipments; that, at least in the context of a violation proceeding, the Commission has previously held that a “dismissal with prejudice” is not permitted citing Certain Bar Clamps, Bar Clamp Pads, and Related Packaging, Displays, and Other Materials, Inv. No. 337-TA-429, Commission Determination (Dec. 3, 2001), citing Commission Opinion at 5 (Jan. 4, 2001); and that a “dismissal” with prejudice does not seem appropriate because there will be a final determination in this proceeding with regard to the shipment at issue, and it would be overly broad to bar future enforcement proceedings based on different facts. (SBr at 11-12, n. 11.) The administrative law judge agrees.

documents respondent had with its clients to be stated clearly that any products from Sinochem Taicang cannot be sold or resold to the United States; and that respondent decided not to participate in an “AHR” trade exhibition in January of 2009. In addition, the Commission also has recently found that claim 1 of the ‘276 patent is invalid. (Commission Opinion at 10, Inv. No. 337-TA-623 (Remand) (August 10, 2009).)

Based on the foregoing, complainants’ request for issuance of a permanent limited exclusion order and a cease and desist order against respondent Sinochem Taicang is denied.

Regarding complainants’ argument for imposition of monetary penalties, the administrative law judge has found, supra, that neither the accused shipment nor the failure of respondent to convert to the “new” process violated the Consent Order in issue. Thus, he finds no monetary penalties are warranted. Moreover, the administrative law judge agrees with the staff that even if a violation of the Consent Order in issue had arguably occurred, the record is lacking any evidence of bad faith or intent on the part of respondent, harm to the public, or any significant benefit to respondent.

## CONCLUSIONS OF LAW

1. The Commission has in personam jurisdiction and subject matter jurisdiction.
2. There has been no violation of the Consent Order issued by the Commission on September 11, 2008.
3. Should a Consent Order violation is found, the record does not support any enforcement measures.

## ORDER

Based on the foregoing, and the record as a whole, it is the administrative law judge's Enforcement Initial Determination (EID) that the enforcement respondent did not violate the Consent Order issued by the Commission on September 11, 2008. It is also the administrative law judge's recommendation that no enforcement measures are appropriate should the Commission find a violation of said Consent Order.

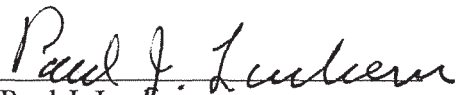
The administrative law judge CERTIFIES to the Commission his EID including his recommendation regarding enforcement measures. The submissions of the parties filed with the Secretary are not certified, since they are already in the Commission's possession in accordance with Commission rules.

Further it is ORDERED that:

1. In accordance with Commission rule 210.39, all material heretofore marked in camera because of business, financial and marketing data found by the administrative law judge to be cognizable as confidential business information under Commission rule 201.6(a), is to be given in camera treatment continuing after the date this investigation is terminated.
2. Counsel for the parties shall have in the hands of the administrative law judge

those portions of the EID including a recommendation for any enforcement measures which contain bracketed confidential business information to be deleted from any public version of said filing, no later than October 5, 2009. Any such bracketed version shall not be served via facsimile on the administrative law judge. If no such bracketed version is received from a party, it will mean that the party has no objection to removing the confidential status, in its entirety, from said filings.

3. Pursuant to the Commission Order of February 18, 2009, petitions for review of the EID may be filed within fourteen (14) days of service of the EID. Responses to any petitions for review may be filed within seven (7) days of service of any petitions for review. Notwithstanding Commission rule 210.75(b)(3), the EID shall become the Commission's final determination sixty (60) days after service of the EID, unless the Commission orders review or changes the deadline for determining whether to review it.

  
Paul J. Luckern  
Chief Administrative Law Judge

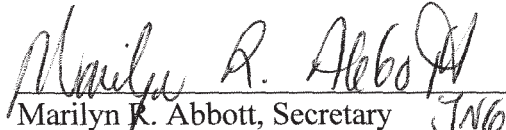
Issued: September 21, 2009

**CERTAIN R-134a COOLANT (OTHERWISE KNOWN AS 1,1,1,2-TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623  
Enforcement Proceeding**

CERTIFICATE OF SERVICE

I, Marilyn R. Abbott, hereby certify that the attached **Public Version Enforcement Initial Determination** was served upon Heidi E. Strain, Esq., Commission Investigative Attorney, and the following parties via first class mail and air mail where necessary on October 7, 2009.

  
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**CERTAIN R-134a COOLANT (OTHERWISE KNOWN  
AS 1,1,1,2-TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623  
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PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION  
Washington, DC

**In the Matter of**

**CERTAIN R-134a COOLANT  
(OTHERWISE KNOWN AS 1,1,1,2-  
TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623**

**COMMISSION OPINION**

**Background**

This Opinion is issued on review of the Remand Initial Determination (“RID”) of the presiding administrative law judge (“ALJ”) (Judge Luckern) in this investigation.

On January 30, 2009, the Commission remanded-in-part the ALJ’s Final Initial Determination (“final ID”) in this investigation, with instructions to consider, *inter alia*, respondents’ arguments relating to anticipation and obviousness based on certain patents and other references (the “remand references”).<sup>1 2</sup> On April 1, 2009, the ALJ issued the RID. The RID rejected the arguments of respondents Sinochem Modern Environmental Protection Chemicals (Xi’an) Co. Ltd.; Sinochem Ningbo Ltd.; Sinochem Environmental

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<sup>1</sup> The remand references are: European Patent Application Nos. 0 449 614 and 0 449 617; a 1982 article by Luigi Marangoni (“Marangoni” or “the Marangoni reference”) (RX-169); U.S. Patent Nos. 2,005,710 (“the ‘710 patent”), 2,885,427 (“the ‘427 patent”), 4,129,603 (“the ‘603 patent”), 4,158,675 (“the ‘675 patent”), and 4,922,037 (“the ‘037 patent”); and GB Patent Nos. 819,849 (“GB ‘849”), 1,589,924 (“GB ‘924”), and 2,030,981 (“GB ‘981”).

<sup>2</sup> The final ID contains a detailed technical background, general information regarding the only asserted claim in the investigation, claim 1 of U.S. Patent No. 5,559,276 (“the ‘276 patent”), and a full procedural history of the investigation. That information is not repeated herein.

Protection Chemicals (Taichang) Co. Ltd.; and Sinochem (U.S.A.) Inc's (hereinafter referred to collectively as "Sinochem")<sup>3</sup> that claim 1 of the '276 patent is anticipated or rendered obvious in light of the remand references. The RID concluded that Sinochem had not sufficiently raised below, and had therefore waived, the anticipation and obviousness arguments presented in its brief on remand and, even assuming the arguments were sufficiently raised, that they had no merit.

On June 1, 2009, the Commission determined to review the RID in its entirety, and directed the parties to respond to certain briefing questions regarding the ALJ's waiver conclusions and regarding arguments made by Sinochem relating to alleged admissions made by Ineos or its witnesses. Specifically, the Commission requested further briefing on the following questions:

1. Based upon the undisputed scope and content of the prior art as set forth in the '276 patent specification and as presented by the expert witnesses at trial, what differences exist between the prior art and claim 1 of the '276 patent?
2. Based on your answer to question (1), would claim 1 have been obvious in light of the remand references to a person of ordinary skill in the art under *KSR International, Co. v. Teleflex Co.*, 550 U.S. 398 (2007)?
3. Are the ALJ's conclusions regarding waiver consistent with Commission Rule 210.14(c)? If not, what is the effect on the ALJ's conclusions in the remand determination?
4. Does the exception to the ALJ's ground rule reciting that "contentions of which a party is not aware and could not be aware in the exercise of reasonable diligence at the time of filing the pre-hearing statements" apply to Respondents' contentions regarding admissions elicited during the hearing? If so, what is the effect on the ALJ's conclusions in the remand determination?

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<sup>3</sup> Complainants INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor Americas L.L.C. will be referred to hereinafter collectively as "Ineos" and the Commission investigative attorney as the "IA."

Having reviewed the record, including the submissions by the parties, the Commission has determined to reverse the RID's conclusion that claim 1 of the '276 patent is not obvious. We conclude that the claim would have been obvious to one of ordinary skill in the art at the time of invention.

### **Analysis**

As indicated in the Commission's June 1, 2009 notice, 74 Fed. Reg. 27048-49, the Commission determined to review the RID to more fully consider what Sinochem argued were "admissions" made by Ineos and its experts. The ALJ did not consider Sinochem's arguments relating to the alleged admissions or to the "state of the prior art at the time of invention" in the RID because he found such arguments to be an attempt to "revisit topics that are not the subject of the remand" in the context of the "state of the prior art at the time of invention." RID at 4 n.3. He therefore found that these arguments were not relevant to the enumerated prior art references that were the subject of the remand and concluded that the first "40-plus pages" of Sinochem's remand brief "need not and should not be considered." *Id.* at 4.

Although the ALJ is correct that the remand order directed him to consider only certain references, we conclude that, in considering those references, it is necessary to consider Sinochem's arguments relating to the admissions and the "state of the prior art" because the admissions and background are relevant to a key factor in the obviousness analysis – "the scope and content of the prior art" under *Graham v. John Deere Co.*, 383 U.S. 1 (1966). Put another way, because an obviousness analysis is conducted from the perspective of one of ordinary skill in the art, arguments relating to the state of the prior art are relevant to the analysis of the references themselves. *See* 35 U.S. § 103(a); *see*

also *KSR Int'l, Co. v. Teleflex Co.*, 550 U.S. 398, 427 (2007) (Advances in technology “define a new threshold from which innovation starts once more.”). Furthermore, in conducting an obviousness analysis, “[v]alid prior art may be created by the admissions of the parties” in the context of analyzing the scope and content of the prior art. *Riverwood Int'l Corp. v. R.A. Jones & Co.*, 324 F.3d 1346, 1354 (Fed. Cir. 2003). We conclude that the ALJ should have considered arguments and evidence relating to the state of the prior art at the time of invention in conjunction with his analysis of the specific remand references.<sup>4</sup> We conduct this analysis below.

Under the Supreme Court’s guidelines for analyzing obviousness, set forth in *Graham v. John Deere Co.*, 383 U.S. at 17, the question of obviousness is one of law based upon “several basic factual inquiries.” *Graham* provides these inquiries, and a procedure for analyzing obviousness based upon them:

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the art to be resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

383 U.S. at 17. At the outset, it is worth noting that the ALJ previously determined, in a finding not reviewed by the Commission, that

A person of ordinary skill in the technology of the ‘276 patent at the time of its filing would be a person who had some education in chemistry, probably at least a Master’s degree, or possibly in chemical engineering as well, and preferably a Ph.D. That person would have worked with the chemistry that’s involved with fluorinated hydrocarbons, such as R-12 or 133a or 134a, and would have experience on handling hydrogen fluoride,

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<sup>4</sup> We note that this point is applicable to the final ID as well, in which the ALJ simply found that certain references asserted by Sinochem did not constitute prior art.

the raw materials that are needed for conversion to fluorinated products, the catalyst systems that are known, both liquid phase and vapor phase, and the type of equipment that works well.

Final ID at 7. Furthermore, the ALJ did not make a finding concerning any secondary considerations that would constitute indicia of nonobviousness, and we do not find the existence of secondary considerations that would be relevant to the obviousness analysis.

We turn, then, to the remaining inquires under *Graham*: the scope and content of the prior art, and the differences between the prior art and the claimed invention.

#### Scope and Content of the Prior Art

Claim 1 reads:

1. In a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones involving (1) reaction of trichloroethylene and hydrogen fluoride to produce 1,1,1-trifluoro-2-chloroethane in reaction zone (1) and (2) reaction of the 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride to produce 1,1,1,2-tetrafluoroethane in reaction zone (2) wherein both reactions are carried out at superatmospheric pressure, reaction (2) is carried out at a temperature in the range of 250-450° C., reaction (1) is carried out at a temperature in the range of 200-400° C. but below that used in reaction (2) and unconverted 1,1,1-trifluoro-2-chloroethane is recycled for further reaction with hydrogen fluoride.

Before considering the scope and content of the individual remand references, it is useful to set out the areas of the parties' agreement regarding what one of ordinary skill in the art would know about production of R-134a. First, no party disagrees with the ALJ's finding that the two reactions at issue were known in the prior art and that it was recognized that the reactions could be performed in sequence to create R-134a. *See* RID at 5. As the ALJ points out, the '276 patent itself acknowledges this fact. *Id.* The specified temperature ranges for each reaction were also known for each individual reaction, and it was known to conduct each reaction at superatmospheric pressure. The '276 patent also discloses that the concept of recycling a portion of the product stream

was known in the prior art, albeit with reference to a different method of production of R-134a. RID at 5 n.4 (citing the '276 patent at 1:18-35); *see also Sjolund v. Musland*, 847 F.2d 1573, 1577-79 (Fed. Cir. 1988) (when the patent specification admits certain matter as prior art, it must be “accepted as prior art, as a matter of law”). It is also undisputed that a person of ordinary skill in the art would have had a reason to recycle unconverted 1,1,1-trifluoro-2-chloroethane for further reaction with hydrogen fluoride. Tr. at 1296-97. Furthermore, we conclude that the ALJ’s recognition that it was known that the reactions could be performed in sequence demonstrates knowledge in the art of the general statement in the preamble of claim 1, “a method for the production of 1,1,1,2-tetrafluoroethane.”

It was disputed, however, whether it was known in the art to perform the method in two separate reaction zones, and it was further disputed whether it was known to perform reaction (1) at a temperature “below that used in reaction (2).”<sup>5</sup> The IA and Ineos also dispute whether it was known to “integrate” the process or whether an “integrated” process for the production of R-134a was known.

The parties dispute whether carrying out the reaction sequence in two separate reaction zones was known in the prior art. We conclude that it was. The ALJ construed reaction zones (1) and (2) to be where reactions (1) and (2) take place and construed the reaction-zone limitation to require that the reactions take place “in different areas.” Final ID at 17. Here, we find that the knowledge of one skilled in the art “that the reactions could be performed in sequence to create R-134a,” *see* RID at 5, necessarily means that one skilled in the art would also know that the reactions could take place “in different

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<sup>5</sup> *See* Office of Unfair Import Investigations’ Subm. in Resp. to Commission Questions Upon Review of the RID (“IA Subm.”) at 14.



areas,” such as in different reactors. Complainants’ expert acknowledged that it was known to conduct the two reactions in separate reactors: “In general, HCFC – 133a is isolated as an intermediate and fed to a second reactor where the conversion of HFC – 134a is conducted.” Tr. at 1327. Moreover, the references described in the ‘276 patent that separately disclose each of the two reactions show that the reactions may be performed separately; *i.e.*, in different reaction zones. *Compare* the ‘276 patent at (1:18-26) (“production of [R-134a] . . . by fluorination of [R-133a] which is itself obtainable by the fluorination of trichloroethylene”) *with* the ‘276 patent at (1:32-36) (“conversion of trichloroethylene to [R-134a] wherein the two-stage reactions are carried out in a single reaction zone.”). We therefore conclude that it was known in the art to conduct the two reactions in different areas.

The parties further dispute whether one of ordinary skill in the art would have known to run reaction (1) at a temperature lower than reaction (2). Initially, we note that running the two reactions with reaction (1) at a lower temperature than reaction (2) is one of only three possible temperature relationships: reaction (1) can be at a higher, lower, or the same temperature as reaction (2). The record contains several pieces of evidence that clearly show that the claimed temperature relationship was known to one skilled in the art. First, as pointed out by Sinochem and the IA, the known temperature ranges for the two reactions overlap such that there are numerous points within each known range in which the temperature of reaction (1) is lower than the temperature of reaction (2).<sup>6</sup> *See* Tr. at

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<sup>6</sup> As Sinochem points out, where a claimed range falls within or overlaps a range disclosed in the prior art, as the range of respective temperatures that meets the relative-temperature limitation does here, there is a presumption that the patent is obvious. *In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003); *Iron Grip Barbell Co. v. USA Sports*,

1312-13. Second, the references described in the '276 patent disclose the claimed temperature relationship.<sup>7</sup> Third, both parties' experts testified that reaction (1) would generally be run at lower temperatures to prevent the undesired by-product 1122, and because reaction (1) is exothermic. *See* Tr. at 1396-99 (Dr. Manzer's testimony); Tr. at 717, 958 (Dr. Gumprecht's testimony). We therefore find that the claimed relationship between the reaction temperatures of reactions (1) and (2) was part of the scope and content of the prior art.

Finally, Ineos and the IA contend that claim 1 of the '276 patent requires an "integrated" process. *See, e.g.*, IA Subm. at 6; Complainants' Opening Br. in Resp. to the Notice of Review of the RID at 17-18. Nothing in the language of claim 1, however, suggests that the claim covers only an "integrated" process. Claim 1 refers to two separate reaction zones and the parties agreed that the reactions can be carried out in two separate reactors as either a continuous or a batch process. SX-3. The ALJ's construction of claim 1 does not require "integration." In our view, therefore, claim 1 is not limited to "integrated" processes. In any event, we conclude that performing the reactions in sequence to obtain R-134a would meet any requirement that the process be "integrated."

The same response applies to Ineos's objection to Sinochem's assertion that the reaction zones need not be "connected." *See* Complainants' Reply Brief at 13-14.

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*Inc.*, 392 F.3d 1317, 1322 (Fed. Cir. 2004). We do not believe that Ineos has overcome this presumption.

<sup>7</sup> *See* '276 patent at (1:18-26) (stating that 1,1,1,-trifluoro-2-chloroethane is "obtainable by the fluorination of trichloroethylene [reaction (1)] as described in" United Kingdom Patent Specification No. 1,307,224 ("GB '224") and that production of R-134a is described in GB '924). GB '224 discloses conducting reaction (1), the fluorination of trichloroethylene, at 290 degrees. RX-155, at SINO0002252 (Table IV, ex. 22). GB '924 describes preferred temperatures for reaction (2) of between 300 and 400 degrees.



Ineos's expert contradicted any argument that the invention requires the two reaction zones to be physically attached, *see* Tr. at 584:20-585:5 (“there is no requirement in [the ‘276 patent] for the product of one reaction to pass to a second . . . reaction zone.”); 577; 595-98, and the ALJ's construction does not require any type of connection. Moreover, even if the zones were required to be connected, one of skill in the art would have an understanding, as part of his background knowledge, of how to connect two reactors. *See* Final ID at 7 (finding that one of ordinary skill in the art would probably have “at least a Master's degree, or possibly in chemical engineering as well, and preferably a Ph.D” and would know “the type of equipment that works well”).

Therefore, without even consulting any of the remand references, one of ordinary skill in the art would have knowledge of all of the elements in claim 1, and would know how to combine the known elements to produce R-134a. This conclusion is based on the background knowledge established above, which “defined the threshold” from which the alleged invention began. *See KSR*, 550 U.S. at 418.

#### Differences Between the Prior Art and the Claimed Invention

Based on the discussion and findings above, we find virtually no difference between the scope and content of the prior art and the claimed invention. As the IA pointed out, the only areas of dispute were the reaction-zone limitations, whether the prior art disclosed an “integrated” sequence of reactions, and the relative-temperature limitation. IA Subm. at 14. As discussed above, we find that the concepts of a two-reaction-zone sequential reaction and carrying out reaction (1) at a lower temperature than reaction (2) were known in the art. We therefore find that all the elements of the claim were known in the art at the time of invention.

## Conclusion

We find that the evidence demonstrates that one of ordinary skill in the art would not only be aware of the elements, but would also know how to combine all the elements in the claimed manner. We therefore conclude that claim 1 of the '276 patent would have been obvious to one of ordinary skill in the art based upon the scope and content of the prior art, the trial testimony, most of which was undisputed, and the disclosures in the '276 patent itself.

Because we find the claim obvious without even consulting the specific remand references, it is unnecessary for us to address the issues of obviousness or anticipation in light of those references or whether arguments on those issues were waived.<sup>8</sup> We therefore decline to reach those issues.

We note, however, that consideration of the various references would provide additional support for the Commission's conclusion that the claim would have been obvious to one of ordinary skill in the art at the time of the invention. We therefore conclude in the alternative that, if the remand references were specifically considered, Marangoni alone renders the claim obvious when combined with the background knowledge of one of ordinary skill in the art. First, Marangoni discloses the claimed

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<sup>8</sup> Commissioner Deanna Tanner Okun notes that the ALJ found in the RID "that respondents did not raise in their prehearing statement the issues regarding obviousness," including allegations involving the Marangoni reference alone or in combination with one or more secondary references. RID at 14 and 21. While the ALJ rejected respondents' arguments as not properly raised, the issue of obviousness was undisputedly presented to the Commission, and evidence submitted by Sinochem relating to that issue, including the remand references testimony by expert witnesses regarding those references, was properly filed and contained in the record of this proceeding. Therefore, while I join my colleagues' alternative analysis below, I have considered the Marangoni reference in reaching my conclusion that the claim would have been obvious to one of ordinary skill in the art at the time of the invention.

relative-temperature relationship between the reactions. Specifically, Marangoni discloses reaction (1) taking place at 325 degrees, and reaction (2) taking place at 350 degrees. RX-169; Tr. at 836-37 (Dr. Gumprecht's testimony); 1312-14, 1415-16 (Dr. Manzer's testimony). Therefore, while the ALJ is correct that Marangoni does not disclose that the relationship is *required*, RID at 30-31, Marangoni nonetheless discloses the relative-temperature limitation. The ALJ is also correct that Marangoni does not disclose recycling the product stream, but both parties' experts testified the recycling step would have been within the knowledge of one of ordinary skill in the art at the time of invention and Dr. Manzer testified that such a person would have motivation to do so. *See* Tr. at 929-30 (Dr. Gumprecht's testimony); Tr. at 1295-97 (Dr. Manzer's testimony). Finally, we find that one of ordinary skill in the art, knowing the general reaction sequence, would have found it obvious to use the intermediate compound in Marangoni's disclosure of reaction (1) as a reagent in the disclosed reaction (2). One of ordinary skill in the art, therefore, would find the claimed invention obvious in light of Marangoni.

#### **Sinochem's Motion to Strike**

Sinochem filed a motion to strike portions of Ineos's Response to its submission and for leave to file a reply to that submission. Both Ineos and the IA oppose the motions as inconsistent with the Commission's rules and the Commission notice of review of the RID. We agree with Ineos and the IA that Sinochem's motion should be denied. The motion does not even allege, much less demonstrate, that good cause exists for filing it. Moreover, Sinochem's motion follows a pattern of unnecessary litigation tactics that have imposed unnecessary burdens on the Commission, the ALJ, and the parties. We therefore deny Sinochem's motion.

### **Sinochem's Motion To Conform Pleadings to Evidence Taken**

While the RID was on review, Sinochem moved to amend the pleadings to conform them to evidence taken throughout the investigation under Commission Rule 210.14(c). Sinochem notes in its motion that it does not believe that the motion was necessary procedurally or substantively, but was filed out of an abundance of caution. Ineos and the IA oppose Sinochem's motion.

Commission Rule 210.14(c) provides that:

When issues not raised by the pleadings or notice of investigation, but reasonably within the scope of the pleadings and notice, are considered during the taking of evidence by the express or implied consent of the parties, they shall be treated in all respects as if they had been raised in the pleadings and notice. Such amendments of the pleadings and notice as may be necessary to make them conform to the evidence and to raise such issues shall be allowed at any time, and shall be effective with respect to all parties who have expressly or impliedly consented.

Commission Rules 210.12 and 210.13 make clear that only the complaint and the answer constitute "the pleadings." Because we agree that the motion was unnecessary to the ultimate disposition of the investigation, and because Sinochem has not identified what they wish to amend in the pleadings, Sinochem's motion is denied.

By Order of the Commission.



Marilyn R. Abbott  
Secretary to the Commission

Issued: September 18, 2009

CERTAIN R-134a COOLANT (otherwise known as 1,1,1,2-tetrafluoroethane)

337-TA-623

**PUBLIC CERTIFICATE OF SERVICE**

I, Marilyn R. Abbott, hereby certify that the attached **PUBLIC OPINION** has been served by hand upon the Commission Investigative Attorney, Thomas S. Fusco, Esq., and the following parties as indicated, on September 21, 2009.



Marilyn R. Abbott, Secretary  
U.S. International Trade Commission  
500 E Street, SW  
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**ON BEHALF OF COMPLAINANTS INEOS FLUOR HOLDINGS LIMITED, INEOS FLUOR LIMITED AND INEOS FLUOR AMERICAS LLC:**

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UNITED STATES INTERNATIONAL TRADE COMMISSION  
Washington, D.C. 20436

In the Matter of

CERTAIN R-134a COOLANT  
(OTHERWISE KNOWN AS 1,1,1,2-  
TETRAFLUOROETHANE)

Investigation No. 337-TA-623

**NOTICE OF COMMISSION DETERMINATION TO REVERSE THE REMAND  
DETERMINATION OF THE PRESIDING ADMINISTRATIVE LAW JUDGE AND TO  
TERMINATE THE INVESTIGATION IN ITS ENTIRETY WITH A FINDING OF NO  
VIOLATION**

**AGENCY:** U.S. International Trade Commission.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that the U.S. International Trade Commission has determined to reverse the conclusion reached in the Remand Determination ("RID") issued by the presiding administrative law judge ("ALJ") in the above-captioned investigation that the only remaining asserted claim of U.S. Patent No. 5,559,276 ("the '276 patent") is not obvious. The Commission finds that the claim would have been obvious to one of ordinary skill in the art and is therefore invalid. The Commission affirms the RID's conclusion that the asserted claim was not anticipated.

**FOR FURTHER INFORMATION CONTACT:** Paul M. Bartkowski, Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 708-5432. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server at <http://www.usitc.gov>. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at <http://edis.usitc.gov>. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

**SUPPLEMENTARY INFORMATION:** The Commission instituted this investigation on December 31, 2007, based on a complaint filed by INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor Americas L.L.C. (collectively, "Ineos"). The complaint alleged violations of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337) in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain R-134a coolant (otherwise known as 1,1,1,2-tetrafluoroethane) by reason of infringement of various claims of United States Patent No. 5,744,658. Complainants subsequently added



allegations of infringement with regard to United States Patent Nos. 5,382,722 and the '276 patent, but only claim 1 of the '276 patent remains at issue in this investigation. The complaint named two respondents, Sinochem Modern Environmental Protection Chemicals (Xi'an) Co., Ltd. and Sinochem Ningbo Ltd. Two additional respondents were subsequently added: Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd. and Sinochem (U.S.A.) Inc. The four respondents are collectively referred to as "Sinochem."

On December 1, 2008, the ALJ issued his final ID, finding that Sinochem had violated section 337. He concluded that respondents' accused process infringed claim 1 of the '276 patent and that the domestic industry requirement had been met. He also found that claim 1 was not invalid and that it was not unenforceable. The Commission determined to review the ALJ's final ID with regard to the effective filing date of the asserted claim, anticipation, and obviousness. By order dated January 30, 2009, the Commission supplemented the ALJ's reasoning regarding the effective filing date, and remanded the investigation to the ALJ to conduct further proceedings related to anticipation and obviousness. To accommodate the remand, the Commission extended the target date to June 1, 2009 and instructed the ALJ to issue the RID by April 1, 2009.

The ALJ issued the RID on April 1, 2009. The RID concluded that Sinochem's arguments concerning anticipation and obviousness were waived under the ALJ's ground rules and, alternatively, that the arguments were without merit. Sinochem filed a petition for review of the RID. The Commission investigative attorney ("IA") and Ineos opposed Sinochem's petition.

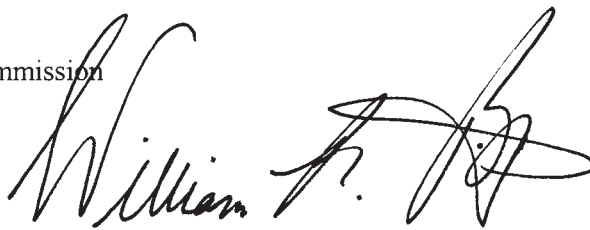
On June 1, 2009, the Commission determined to review the RID in its entirety and requested briefing on certain questions. The Commission determined to extend the target date to August 3, 2009, to accommodate its review.

Having examined the record of this investigation, including the ALJ's RID and the submissions of the parties, the Commission has determined to reverse the conclusion of nonobviousness of claim 1 of the '276 patent in the RID. In so finding, the Commission has determined to rely on certain party admissions and other evidence as to the state of the prior art. The Commission has determined to take no position on the RID's conclusions relating to obviousness arguments based on prior art references identified in the Commission's remand instructions, including the RID's conclusions on whether arguments as to those references have been waived. The Commission has also determined not to rely on the RID's conclusions as to anticipation and waiver of anticipation arguments. The Commission has further determined to deny Sinochem's motion to strike portions of Ineos's response to its written submission and for leave to file a reply to that submission. The Commission has determined also to deny Sinochem's motion to conform pleadings to evidence taken. These findings terminate the Commission's investigation.



The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in Rule 210.45 of the Commission's Rules of Practice and Procedure (19 C.F.R. Part 210.45).

By order of the Commission.  
Marilyn R. Abbott, Secretary to the Commission


A handwritten signature in black ink, appearing to read "William R. Bishop". The signature is fluid and cursive, with a large, stylized initial "W" and "B".

William R. Bishop  
Acting Secretary to the Commission

Issued: August 3, 2009

**PUBLIC CERTIFICATE OF SERVICE**

I, Marilyn R. Abbott, hereby certify that the attached **NOTICE OF COMMISSION DETERMINATION TO REVERSE THE REMAND DETERMINATION OF THE PRESIDING ADMINISTRATIVE LAW JUDGE AND TO TERMINATE THE INVESTIGATION IN ITS ENTIRETY WITH A FINDING OF NO VIOLATION** has been served by hand upon the Commission Investigative Attorney, Thomas S. Fusco, Esq., and the following parties as indicated, on August 3, 2009.

  
Marilyn R. Abbott, Secretary  
U.S. International Trade Commission  
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**ON BEHALF OF COMPLAINANTS INEOS FLUOR HOLDINGS LIMITED, INEOS FLUOR LIMITED AND INEOS FLUOR AMERICAS LLC:**

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UNITED STATES INTERNATIONAL TRADE COMMISSION  
Washington, D.C.

In the Matter of

CERTAIN R-134a COOLANT  
(OTHERWISE KNOWN AS 1,1,1,2-  
TETRAFLUOROETHANE)

Investigation No. 337-TA-623

**NOTICE OF COMMISSION DETERMINATION TO REVIEW THE REMAND  
DETERMINATION OF THE PRESIDING ADMINISTRATIVE LAW JUDGE AND TO  
EXTEND THE TARGET DATE**

**AGENCY:** U.S. International Trade Commission.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that the U.S. International Trade Commission has determined to review the Remand Determination (“RID”) issued by the presiding administrative law judge (“ALJ”) in the above-captioned investigation on April 1, 2009. The Commission has also determined to extend the target date for completion of the investigation to August 3, 2009.

**FOR FURTHER INFORMATION CONTACT:** Paul M. Bartkowski, Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 708-5432. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server at <http://www.usitc.gov>. The public record for this investigation may be viewed on the Commission’s electronic docket (EDIS) at <http://edis.usitc.gov>. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission’s TDD terminal on (202) 205-1810.

**SUPPLEMENTARY INFORMATION:** The Commission instituted this investigation on December 31, 2007, based on a complaint filed by INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor Americas L.L.C. (collectively, “Ineos”). The complaint alleged violations of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337) in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain R-134a coolant (otherwise known as 1,1,1,2-tetrafluoroethane) by reason of infringement of various claims of United States Patent No. 5,744,658. Complainants subsequently added allegations of infringement with regard to United States Patent Nos. 5,382,722 and 5,559,276

(“the ‘276 patent”), but only claim 1 of the ‘276 patent remains at issue in this investigation. The complaint named two respondents, Sinochem Modern Environmental Protection Chemicals (Xi’an) Co., Ltd. and Sinochem Ningbo Ltd. Two additional respondents were subsequently added: Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd. and Sinochem (U.S.A.) Inc. The four respondents are collectively referred to as “Sinochem.”

On December 1, 2008, the ALJ issued his final ID, finding that Sinochem had violated section 337. He concluded that respondents’ accused process infringed claim 1 of the ‘276 patent and that the domestic industry requirement had been met. He also found that claim 1 was not invalid and that it was not unenforceable. The Commission determined to review the ALJ’s final ID with regard to the effective filing date of the asserted claim, anticipation, and obviousness, to supplement the ALJ’s reasoning regarding the effective filing date, and to remand the investigation to the ALJ to conduct further proceedings related to anticipation and obviousness. To accommodate the remand, the Commission extended the target date to June 1, 2009 and instructed the ALJ to issue the RID by April 1, 2009.

The ALJ issued the RID on April 1, 2009. The RID concluded that Sinochem’s arguments concerning anticipation and obviousness were waived under the ALJ’s ground rules and, alternatively, that the arguments were without merit. Sinochem filed a petition for review of the RID. The Commission investigative attorney (“IA”) and Ineos opposed Sinochem’s petition. Subsequently, Sinochem filed a motion to strike and for leave to file a reply to Ineos’s and the IA’s oppositions.

Having examined the record of this investigation, including the ALJ’s RID and the submissions of the parties, the Commission has determined to review the RID in its entirety.

To assist in its review, and in order to more fully analyze Sinochem’s “admission”-based arguments, the Commission is interested in receiving further briefing on the following questions:

- (1) Based upon the undisputed scope and content of the prior art as set forth in the ‘276 patent specification and as presented by the expert witnesses at trial, what differences exist between the prior art and claim 1 of the ‘276 patent?
- (2) Based on your answer to question (1), would claim 1 have been obvious in light of the remand references to a person of ordinary skill in the art under *KSR International, Co. v. Teleflex Co.*, 550 U.S. 398 (2007)?
- (3) Are the ALJ’s conclusions regarding waiver consistent with Commission Rule 210.14(c)? If not, what is the effect on the ALJ’s conclusions in the remand determination?
- (4) Does the exception to the ALJ’s ground rule reciting that “contentions of which a party is not aware and could not be aware in the exercise of reasonable diligence at the time of filing the pre-hearing statements” apply to Respondents’ contentions

regarding admissions elicited during the hearing? If so, what is the effect on the ALJ's conclusions in the remand determination?

The Commission has determined to extend the target date for completion of this investigation to August 3, 2009, in order to provide adequate time for review of the RID. The Commission has determined to deny as moot Sinochem's motion to strike and for leave to file a reply.

**WRITTEN SUBMISSIONS:** The parties to the investigation are requested to file written submissions on the issues under review. The submissions should be concise and thoroughly referenced to the record in this investigation, including references to exhibits and testimony. The written submissions must be filed no later than close of business on June 15, 2009. Reply submissions must be filed no later than the close of business on June 25, 2009. No further submissions on these issues will be permitted unless otherwise ordered by the Commission.

Persons filing written submissions must file the original document and 12 true copies thereof on or before the deadlines stated above with the Office of the Secretary. Any person desiring to submit a document to the Commission in confidence must request confidential treatment unless the information has already been granted such treatment during the proceedings. All such requests should be directed to the Secretary of the Commission and must include a full statement of the reasons why the Commission should grant such treatment. *See* 19 C.F.R. § 201.6. Documents for which confidential treatment by the Commission is sought will be treated accordingly. All nonconfidential written submissions will be available for public inspection at the Office of the Secretary.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in the Commission's Rules of Practice and Procedure (19 C.F.R. Part 210).

By order of the Commission.

A handwritten signature in black ink, appearing to read 'Marilyn R. Abbott', written in a cursive style.

Marilyn R. Abbott  
Secretary to the Commission

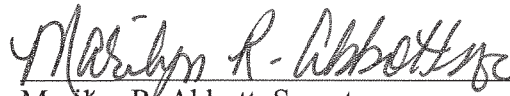
Issued: June 1, 2009

CERTAIN R-134a COOLANT (otherwise known as 1,1,1,2-tetrafluoroethane)

337-TA-623

**PUBLIC CERTIFICATE OF SERVICE**

I, Marilyn R. Abbott, hereby certify that the attached **NOTICE OF COMMISSION DETERMINATION TO REVIEW THE REMAND DETERMINATION OF THE PRESIDING ADMINISTRATIVE LAW JUDGE AND TO EXTEND THE TARGET DATE** has been served by hand upon the Commission Investigative Attorney, Thomas S. Fusco, Esq., and the following parties as indicated, on June 2, 2009.



Marilyn R. Abbott, Secretary  
U.S. International Trade Commission  
500 E Street, SW  
Washington, DC 20436

**ON BEHALF OF COMPLAINANTS INEOS FLUOR HOLDINGS LIMITED, INEOS FLUOR LIMITED AND INEOS FLUOR AMERICAS LLC:**

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**ON BEHALF OF RESPONDENTS SINOCHEM MODERN ENVIRONMENTAL PROTECTION CHEMICALS (Xi'an) Co., LTD. AND SINOCHEM NINGBO LTD.:**

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**RESPONDENTS:**

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**PUBLIC VERSION**

UNITED STATES INTERNATIONAL TRADE COMMISSION  
Washington, D.C.

_____	)	
In the Matter of	)	
	)	
CERTAIN R-134a COOLANT	)	Investigation No. 337-TA-623
(OTHERWISE KNOWN AS 1,1,1,2-	)	Remand
TETRAFLUOROETHANE)	)	
_____	)	

Remand Determination

This is the administrative law judge's Remand Determination (RID) pursuant to the Commission Order of January 30, 2009. The administrative law judge, after a review of the record developed, finds inter alia and as found in the Final Initial and Recommended Determinations which issued on December 1, 2008 (ID), that there is jurisdiction and there is a violation of section 337 of the Tariff Act of 1930, as amended.

This is also the administrative law judge's Recommended Determination on remedy and bonding, pursuant to Commission rules 210.36(a) and 210.42(a)(1)(ii). As found in the ID should the Commission find a violation, the administrative law judge recommends the issuance of a limited exclusion order barring entry into the United States of products made by the process of asserted claim 1 of U.S. Patent No. 5,559,276 and that a bond be set in the amount of 100 percent of entered value of any products made from the infringing process during the Presidential review period.

## TABLE OF CONTENTS

	PAGE
OPINION .....	1
I. Procedural History .....	1
II. Introduction .....	3
III. Whether Respondents Sufficiently Raised The Issues, Prior To Respondents' Remand Initial Brief, Identified By The Commission .....	6
A. Respondents' Argument That Marangoni Anticipates Claim 1 .....	8
B. Respondents' Arguments On Obviousness .....	10
IV. Whether Respondents' Arguments In Respondents' Remand Initial Brief Have Merit, Assuming <u>Arguendo</u> They Were Sufficiently Raised .....	21
A. Whether Respondents' Anticipation Arguments Have Merit .....	29
B. Whether Respondents' Obviousness Arguments Have Merit .....	37
CONCLUSIONS OF LAW .....	52
ORDER .....	53

## ABBREVIATIONS

CBr	Complainants' Post-hearing Brief
CDX	Complainants' Demonstrative Exhibit
CFF	Complainants' Proposed Finding
CORFF	Complainants' Objection To Respondents' Proposed Finding
COSFF	Complainants' Objection To Staff's Proposed Finding
CRBr	Complainants' Post-hearing Reply Brief
CRRFF	Complainants' Proposed Rebuttal Finding to RFF
CRSFF	Complainants' Proposed Rebuttal Finding To SFF
CX	Complainants' Exhibit
ID	Final Initial and Recommended Determinations Which Issued On December 1, 2008
JX	Joint Exhibit
RBr	Respondents' Post-hearing Brief
RDX	Respondents' Demonstrative Exhibit
RID	Remand Determination
RX	Respondents' Exhibit
RFF	Respondents' Proposed Finding
ROCFF	Respondents' Objection To Complainants' Proposed Finding
ROSFF	Respondents' Objection To Staff's Proposed Finding
RRBr	Respondents' Post-hearing Reply Brief
RRCFF	Respondents' Proposed Rebuttal Finding To CFF
RRSFF	Respondents' Proposed Rebuttal Findings To SFF
SBr	Staff's Post-hearing Brief
SRBr	Staff's Post-hearing Reply Brief

SFF	Staff's Proposed Finding
SX	Staff's Exhibit
Tr.	Transcript Of Pre-hearing Conference and violation Hearing
R-134a	1,1,1,2-tetrafluoroethane
TFE	1,1,1,2-tetrafluoroethane
R-133a	1,1,1-trifluoro-2-chloroethane
TFCE	1,1,1-trifluoro-2-chloroethane
Tri	Trichloroethylene
TCE	Trichloroethylene
HF	Hydrogen Fluoride
HCl	Hydrogen chloride
CReBr	Complainants' Remand Initial Brief
CRERBr	Complainants' Remand Reply Brief
RReBr	Respondents' Remand Initial Brief
RReRBr	Respondents' Remand Reply Brief
SReBr	Staff's Remand Initial Brief
SReRBr	Staff's Remand Reply Brief

## OPINION

### I. Procedural History

In the Commission ORDER, which issued on January 30, 2009, the Commission ordered, inter alia, that:

1. The question of violation of section 337 with respect to claim 1 of the [U.S. Patent No. 5,559,276 viz.]‘276 patent is remanded to the ALJ for a remand determination addressing issues related to anticipation and obviousness with respect to certain references set forth in paragraph 2 below.
2. The ALJ shall consider whether respondents’ [respondents are Sinochem Modern Environmental Protection Chemicals (Ix’an) Co., Ltd., Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd., Sinochem Ningbo Ltd., and Sinochem (U.S.A.) Inc. (Sinochem)] anticipation and obviousness arguments related to European Patent Application Nos. 0 449 614 and 0 449 617; <sup>[1]</sup> the 1982 Marangoni reference (RX-169); U.S. Patent Nos. 2,005,710, 2,885,427, 4,129,603, 4,158,675, and 4,922,037; and GB Patent Nos. 819,849, 1,589,924, and 2,030,981 were sufficiently raised and if so whether they have merit.
3. The ALJ should not consider arguments directed to the seven references he found are not prior art (U.S. Patent No. 5,334,786;

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<sup>1</sup> The Commission affirmed the administrative law judge’s determination regarding the effective filing date of claim 1 of the ‘276 patent (i.e. at least a September 5, 1991 filing date) with additional reasoning (see remand notice). Thus while the Commission in its paragraph 2 of the remand ORDER makes reference to European Patent Application No. 0,449,614 (RX-19) and European Patent Application No. 0,449,617 (RX-154), said applications were first published on October 2, 1991. Hence, as complainants and the staff argued, said applications would not constitute prior art as they post-date the September 5, 1991 date. Respondents admitted that those applications fail to qualify as prior art under what has become the law of this case. See respondents’ response to Question No. 61 in Order No. 18, which reads as follows:

If the patents-in-suit are considered to have a filing date of September 5, 1991, then the following references relied upon as prior art by Respondents would not constitute prior art and any anticipation or obviousness arguments based on these references would not apply. RX-49, EP 0 449 614 - October 2,1991 RX-154 [Withdrawn], EP 0 449 617 - October 2, 1991.

(Emphasis added)

European Patent Application 0 446 869; EP 0 408 005 A1; U.S. Patent No. 5,157,172; U.S. Patent No. 5,185,482; WO 90/108755; and EP 0 366 797 A1). Anticipation and obviousness allegations based on these references in whole or in part may not be considered on remand, because the Commission has adopted the ALJ's determination that these references are not prior art.

Said Commission ORDER extended the target date to June 1, 2009 and directed that the administrative law judge should make his remand determination of whether there is a violation of section 337 with regard to claim 1 of the '276 patent by April 1, 2009.

Order No. 27, which issued on February 2, 2009 required the parties to submit detailed briefing directed to the prior art references in said paragraph 2 of the Commission ORDER purportedly relied on by respondents in their anticipation and obviousness arguments. The briefing, pursuant to Order No. 27, has been made.<sup>2</sup> The matter is now

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<sup>2</sup> On March 4, 2009, respondents moved for leave to file a reply to complainants' reply to respondents' brief on remand pursuant to Order No. 27. (Motion Docket No. 623-41.) Respondents, in support, argued that the reply is appropriate because complainants' opening brief did not address certain matters in the first instance, in an apparent effort to allow certain matters to go without a response, and because it is necessary to address misstatements of fact and law raised in complainants' rebuttal brief. Said matters were said to concern the following:

1. Complainants misrepresent that Dr. Gumprecht never explained what the term "POSITA" meant in connection with RDX-119, which was in fact explained;
2. Complainants misrepresent that the extent for which Marangoni was addressed as a primary reference. At a minimum, the ALJ should have a more full citation to the record;
3. On page 47-48 of their Rebuttal brief on remand, Complainants state that the '482 patent teaches away from the use of two reaction zones in a commercial process for the manufacture of [R-134a]. The '482 patent, however, is not a prior art reference at issue on remand and cannot be argued to teach away; and
4. Complainants misrepresent that Respondents seek to use the '276



ready for issuance of the remand determination pursuant to said Commission ORDER.

## II. Introduction

At the outset, as argued by the staff in its SReRBr at 2-3, respondents' remand initial brief (RReBr), pursuant to Order No. 27, goes well beyond the topics to which the remand is

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patent, in and of itself, as a prior art reference. (Complainants' rebuttal Br. at 23, 24; arguing that "Respondents once again argue that the GB '849 patent and the '710 patent can be combined with the '276 patent to invalidate the '276 patent." and, that under such a "novel theory, every issued patent that satisfies 35 U.S.C. § 112 would invalidate itself" (emphasis original)). To the contrary, Respondents simply relied on the long-standing Federal Circuit law that "[a]dmissions in the specification regarding the prior art are binding on the patentee for purposes of later inquiry into obviousness." See e.g., Pharmastem Therapeutics, 491 F.3d 1342, 1361-62 (Fed. Cir. 2007) (emphasis added)

Complainants, in an opposition filed March 4, 2009 opposed Motion No. 623-41. It was argued that contrary to Order No. 27 and undeterred by the Commission's denial of respondents' last motion for leave, respondents seek leave to file yet another unnecessary brief; complainants note that this is the sixth motion for leave respondents have filed in this investigation, citing respondents' 4/16/08 Motion for Leave to File a Reply; respondents' 6/18/08 Motion For Leave to File a Reply; respondents' 6/30/08 Motion for Leave to File a Reply; respondents' 7/14/08 Motion for Leave to File a Reply; and respondents' 1/5/09 Motion for Leave to File a Reply. Complainants further argued that the reply brief, which concedes that "the parties have addressed their positions elsewhere," offers nothing new or helpful to the ALJ. Rather, it simply reinforces what is already known; that respondents insist on having the last word even where it is neither warranted nor allowed; that Order No. 27 limited the parties' briefing on remand to an initial and a reply submission (Order No. 27 at 1-2) and also required that be briefing be "detailed" (Id.); that accordingly, respondents were required, and had ample opportunity, to present all of their remand arguments in the two briefs permitted by the ALJ, citing Certain Personal Computers, Monitors and Components Thereof, Inv. No. 337-TA-519, Order No. 7 (Oct. 12, 2004) (quoting Certain Microlithographic Machines and Components Thereof, Inv. No. 337-TA-468, Order No. 28 (July 17, 2002) ("Parties are expected to present their best arguments" in the papers "that they are entitled as a matter of right file," and denying motion for leave to file reply because such motions serve "more to delay the adjudicative process than to advance it.")).

The staff, in an e-mail to the attorney adviser on March 10, 2009, indicated that it does not intend to respond to Motion No. 623-41.

Having considered the arguments of the parties, Motion No. 623-41 is denied.

limited, and as such, much of that submission need not and should not be considered. While respondents' RReBr does not assert the earlier-filed related applications (EP '614 and EP '617) as prior art respondents have cohesively detailed their anticipation and obviousness arguments with respect to the nine remaining references in a way in which they were not detailed in pre-hearing, post-hearing, or petition briefing, and the organization of the briefing seems to mix repetitive assertions with a number of topics not to be addressed by the remand.<sup>3</sup>

In issue is asserted claim 1 of the '276 patent (JX-5) which reads as follows:

1. In a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones involving (1) reaction of trichloroethylene and hydrogen fluoride to produce 1,1,1-trifluoro-2-chloroethane in reaction zone (1) and (2) reaction of the 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride to produce 1,1,1,2-tetrafluoroethane in reaction zone (2) wherein both reaction are carried out at superatmospheric pressure, reaction (2) is carried out at a temperature in the range of 250°-450° C., reaction (1) is carried out at a temperature in the range of 200°-400° C. but below that used in reaction (2) and unconverted 1,1,1-trifluoro-2-chloroethane is recycled for further reaction with hydrogen fluoride.

There is no dispute among the parties that the prior art disclosed the two main reactions of the

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<sup>3</sup> Respondents appear to have employed the concept of the "state of the prior art at the time of the invention" as it bears on the obviousness and anticipation analyses, generally, as a means to revisit many topics that are not the subject of the remand. Thus the lengthy "background" section of RReBr (spanning 40-plus pages) appears not to be properly related to the subject of this remand, specifically, the discussion of the Montreal Protocol (Section II. A. 2), prior work at Dupont (Section II. A. 1) and ICI (Section II. A. 2), the benefits of the reverse process over the forward process (Section II. B. 1-4), overzealous prosecution (Section II. B. 5), claim construction (Section II. C.), and patentability (Section II. D.) Respondents have had a full and fair opportunity to brief these matters prior to remand, and they are not specifically relevant to the enumerated prior art references that are the proper subject of the remand. In fact respondents' analysis of the remand issues, after the "background section, does not actually begin until page 50 of their 101-page RReBr; and that similarly, respondents' discussion of GB 1,307,224 as an obviousness reference (RReBr at 90-99) is not proper because it was not among the references identified for consideration on remand.

claimed process (i.e., the trichloroethylene to 1,1,1-trifluoro-2-chloroethane reaction and the 1,1,1-trifluoro-2-chloroethane to 1,1,1,2-tetrafluoroethane reaction) and that it was recognized that the reactions could be performed in the sequence from trichloroethylene through 1,1,1-trifluoro-2-chloroethane to create 1,1,1,2-tetrafluoroethane. Thus both parties' experts agree on this point. See, e.g., Manzer, Tr. at 1259 (August 21, 2008) ("The reactions have been known, as Dr. Gumprecht said, the individual reactions, for a long time."). In fact, the '276 patent itself discusses that this information was in the prior art.<sup>4</sup> Thus this information was before the Examiner, as the applicants for the '276 patent admitted.<sup>5</sup>

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<sup>4</sup> The '276 patent reads:

Several methods have been proposed for the manufacture of 1,1,1,2-tetrafluoroethane (HFA 134a) which is a useful replacement for CFCs in refrigeration and other applications. In United Kingdom Patent Specification No. 1,589,924, there is described the production of HFA 134a by the vapour phase fluorination of 1,1,1-trifluoro-2-chloroethane (HCFC 133a) which is itself obtainable by the fluorination of trichloroethylene as described in United Kingdom Patent Specification No. 1,307,224. Unfortunately, the yield of HFA 134a obtained in practice is significantly less than the calculated equilibrium yield. The formation of HFA 134a as a minor product of the fluorination of trichloroethylene is described in United Kingdom Patent Specification No. 819,849, the major reaction product being HCFC 133a.

In WO 90/08755 there is described the conversion of trichloroethylene to HFA 134a wherein the two-stage reactions are carried out in a single reaction zone with recycle of part of the product stream.

(JX-5 at 1:18-35 (emphasis added).)

<sup>5</sup> The burden of proving obviousness is increased if the challenger relies upon prior art that was before the patent examiner during prosecution, as deference is due to a qualified government agency presumed to have properly done its job. Takeda Chem. Indus., Ltd. v. Mylan

The Commission in its remand ORDER instructed the administrative law judge to first determine whether respondents had sufficiently raised the issues identified by the Commission and second if so whether respondents' anticipation and obviousness arguments related to certain references have merit. In this remand determination the administrative law judge will treat both issues regardless of his determination on the first issue.

III. Whether Respondents Sufficiently Raised The Issues, Prior To Respondents' Remand Initial Brief, Identified By The Commission

With respect to the first issue specified by the Commission, viz. whether respondents sufficiently raised the issues identified by the Commission, ground rule 9 (viii) in effect in this investigation required specific application of each piece of prior art to the claims at issue in the pre-hearing statements. Thus it states as to a pre-hearing statement:

A discussion by any party relying on prior art of the specific applicability of each citation of prior art to each of the claims in issue, citing the specific portion of the prior art referred to, e.g. by page and column, etc. If a piece of art is not applied, it is no longer considered pertinent.

(emphasis added). Ground rule 9(vi) requires the following regarding a pre-hearing statement:

- (vi) A statement of the issues to be considered at the hearing that sets forth with particularity a party's contentions on each of the proposed issues, including citations to legal authorities in support thereof. Any contentions not set forth in detail as required herein shall be deemed abandoned, or withdrawn, except for contentions of which a party is not aware and could not be aware in the exercise of reasonable diligence at the time of filing the pre-hearing statements. Pursuant to this requirement, each of the parties and the staff shall take a position

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Labs, Inc., 417 F. Supp.2d 341, 371 (S.D.N.Y. 2006) aff'd, 492 F.3d 1350 (Fed. Cir. 2007) (Takeda); Ultra-Tex Surfaces, Inc. v. Hill Bros., 204 F.3d 1360, 1367 (Fed. Cir. 2000).).

on the issues it is asserting no later than the filing of its pre-hearing statement. ...

Respondents' pre-hearing statement<sup>6</sup> had a Section "V. Invalidity" starting at page 112.

However, Subsection D, starting at page 278 relates to "The '276 Patent" and continues to page

307. Respondents, in their RReBr, have argued that:

1. the Marangoni reference (RX-169) anticipates claim 1 of the '276 patent (RReBr at 71-76);
2. the Marangoni reference alone renders obvious said claim 1 (RReBr at 76-83);
3. the Marangoni reference renders obvious said claim 1 when combined with "any reference disclosing reaction 1 and/or any reference disclosing reaction 2" (RReBr at 83-84);
4. the Marangoni reference renders obvious said claim 1 when combined with any one of the identified prior art references that disclose recycle (RReBr at 84);
5. each of GB 1,589,924 (RX-156), US 4,129,603 (RX-160), US 4,158,675 (RX-161), US 4,922,037 (RX-120) and GB 2,030,981 (RX-157) alone renders claim 1 obvious (RReBr at 84-85);
6. GB 1,589,924 in combination with any of US 2,005,710 (RX-123), GB 819,849, (RX-122), US 2,885,427 <sup>[7]</sup> (RX-158) or GB 1,307,224 renders claim 1 obvious (RReBr at 90-91);
7. US 4,129,603 in combination with any of U.S. 2,005,710, GB 819,849, US 2,885,427, or GB 1,307,224 renders claim 1 obvious

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<sup>6</sup> Original pre-hearing statements were filed on July 3, 2008. However, on July 7, 2008, respondents' counsel in a letter to the Secretary enclosed a replacement for "Respondent's [sic] Pre-Hearing Brief" filed July 3, 2008 and further stated that the exhibits with the brief filed on July 3, do not need to be replaced. On July 10, 2008 respondents' counsel in a letter to the Secretary enclosed a corrected page 1 of respondents' "Pre-Hearing Statement filed on July 3, 2008."

<sup>7</sup> The cited U.S. Patent No. 2,888,427 appears to be the U.S. counterpart of GB Patent No. 819,949.



(RReBr at 91-92);

8. US 4,158,675 in combination with any of US 2,005,710, GB 819,849, US 2,885,427, or GB 1,307, 224 renders claim 1 obvious (RReBr at 92-93);
9. US 4,922,037 in combination with any of US 2,005,710. GB 819,849, US 2,885,427 or GB 1,307, 224 renders claim 1 obvious (RReBr at 93-94);
10. GB 2,030,981 in combination with any of US 2,005,710. GB 819,849. US 2,885,427 or GB 1,307,224 renders claim 1 obvious (RReBr at 94-95); and
11. each of US 2,005,710, GB 819,849 US 2,885,427 or GB 1,307,224 alone renders claim 1 obvious. (RReBr at 95).

A. Respondents' Argument That Marangoni Anticipates Claim 1

Referring to item (1) supra of RReBr and ground rules 9(vi) and (viii), supra the administrative law judge has reexamined respondents' pre-hearing statement filed on July 7, 2008. Respondents, at pages 278 to 287 of said pre-hearing statement, set forth their arguments why the '276 patent is invalid because it is anticipated under 35 U.S.C. § 102. The first paragraph at page 278 under the heading "1. The '276 Patent is Invalid as Anticipated Under 35 U.S.C. §102" is confusing because it references the '722 patent and not the '276 patent. The second paragraph at pages 278-79 however does reference the '276 patent and concludes that the "claim limitations [of claim 1 of the '276 patent] are inherently disclosed (necessarily present) in United States Patent Nos. 5,334,786 and 5,185,482, PCT WO 90/08755, EPO 446869 and EPO 366 79 [documents]." Said second paragraph makes no specific reference to any portion of said documents.

Respondents allege on pages 280-81 of their pre-hearing statement that the '786 patent

and EP '869 disclose "either expressly or inherently, each and every element, arranged as in claim 1 of the '276 patent, as shown in the below claim chart" which chart related to claim 1 in issue and USPN 5,334,786 which is not one of the references cited in paragraph 2 of the Commission ORDER. Respondents allege on pages 281-84 that the '482 patent and WO 90/08755 disclose, either expressly or inherently, each and every element, arranged as in claim 1 of the '276 patent, as shown in the "below claim chart." It is alleged on pages 284-87 that "EP '792 and WO 89/10341 ... disclose, either expressly or inherently each and every element arranged as in claim 1 of the '276 patent, as shown on the below claim chart," which references are also not cited in paragraph 2 of the Commission ORDER. Moreover, the administrative law judge does not find in the section of the pre-hearing statement at pages 278-87, related to whether the '276 patent is invalid as anticipated under 35 U.S.C. § 102, an allegation that the Marangoni reference anticipates claim 1 of the '276 patent<sup>8</sup> (item (1) of RReBr). Thus in light of ground

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<sup>8</sup> The expert report of respondents' Grumprecht does not list the Marangoni reference among the allegedly anticipatory inferences (see Grumprecht report at 51-81). Moreover at the hearing, Grumprecht never testified that he believed the Marangoni reference to be anticipatory. To the contrary he repeatedly testified that certain limitations of the asserted claim 1 of the '276 patent were missing from the Marangoni Reference. See Tr. at 1065-66 which reads:

Q. And I can, Dr. Grumprecht, starting on page 85 of your expert report, you discuss Marangoni in the context of obviousness. Isn't that correct?

A. That was the next section and that's what I was talking about, yes.

Q. So at the time of your report, you didn't believe that Marangoni, the Marangoni reference discloses each and every limitation of claim 1 of the '276 patent. Isn't that right?

A. I didn't necessarily believe one way or another. I didn't find it on the reading that led me to write the expert report. Again, the thing that well may be missing is recycle, because I don't think that

rules 9 (vi) and 9(viii), the administrative law judge finds the allegation that Marangoni somehow anticipates asserted claim 1 of the '276 patent, as alleged in RReBr (item (1)), was not sufficiently raised in respondents' pre-hearing statement.

B. Respondents' Arguments On Obviousness

Respondents, in their pre-hearing statement at pages 287-307, set forth their arguments as to why the '278 patent "is invalid as obvious under 35 U.S.C. § 103." Thus at page 287 under the heading "2. The '276 Patent Is Invalid as Obvious Under 35 U.S.C. §103" it is argued:

The preceding discussion setting forth the disclosures of the prior art sets forth the scope and content of the prior art as it would be understood by one of ordinary skill in the art. Claim 1 of the '276 patent is obvious in view of each of the primary references discussed below either alone or in combination with one or more secondary references.

- a. Claim 1 of the '276 Patent Is Obvious In View of USPN 5,334,786 and EP 0 446 869 Alone or In Combination with One or More Secondary References

See above discussions regarding these patents as set forth above regarding the '722 and '658 patents and anticipation of Claim 1 of the '276 patent.

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recycle is reported.

I know that pressure is given, temperature is given, products are given.

There is no specific requirement that says it has -- the first reaction has to be a lower temperature, but for anybody skilled in the art would know that it would be advisable not to overheat it in the first reaction.

Q. Now, I'm sorry, Dr. Gumprecht.

A. And finally, the recycle, as I say, recycle is not there.



- b. Claim 1 of the '276 Patent Is Obvious In View of USPN 5,185,482 and PCT WO 90/08755 Alone or In Combination with One or More Secondary References

See above discussions regarding these patents as set forth above regarding the '722 and '658 patents and anticipation of Claim 1 of the '276 patent.

- c. Claim 1 of the '276 Patent Is Obvious In View of Each EP 0 366 797 and WO 89/10341 Alone or In Combination with One or More Secondary References

See above discussions regarding these patents as set forth above regarding the '722 and '658 patents and anticipation of Claim 1 of the '276 patent.

(emphasis added.) Said portion of respondents' pre-hearing statement regarding obviousness only makes reference to art which is not cited in paragraph 2 of the Commission Order of January 30, 2009. Hence, said portion is irrelevant for determining whether respondents' arguments on obviousness in their RReBr were sufficiently raised in their pre-hearing statement.

Respondents on pages 288-90 of their pre-hearing statement set out the following:

- d. Claim 1 of the '276 Patent Is Obvious In View of Great Britain Patent No. 819,849 or USPN 2,885,427 Alone or In Combination with One or More Secondary References

Claim 1 of the '276 patent is obvious in view of either of these references either alone of [sic] in combination with one or more secondary references, as shown in the chart below. See above discussions regarding these patents as set forth above regarding the '722 and '658 patents and anticipation of claim 1 of the '276 patent and secondary references cited therein.

There follows a chart in the pre-hearing statement with the headings "Claim 1 of the '276 Patent" and "GB 819,849." Under "GB 819,849" there is the language:

A person of ordinary skill in the art at the relevant time would have known that 133a, 134a, HCl, and unreacted TCE are necessarily

present in the product stream of the claimed reaction between TCE and HF with a fluorination catalyst. See also above in chart regarding reaction zones.

There is also the language:

To the extent it is argued by Complainants or Dr. Manzer that GB '849 does not disclose the reverse reactor sequence, the claimed "passing," or that the reaction of TCE and HF is at a lower temperature than that of the reaction of 133a and HF, see the above discussions, including the identification of secondary references cited therein, on these issue.

\* \* \*

To the extent it is argued by Complainants or Dr. Manzer that this reference does not disclose that the TCE-HF reaction temperature is lower than that for the 133a and HF reaction, see the above discussions, including the identification of secondary references cited therein, on these issue.

(emphasis added). The section concludes with the sentences:

The disclosures cited to in GB '849 that appear in the above chart also appear in the disclosures of USPN 2,885,427, which has a specification nearly identical to GB '849. Accordingly, everything stated herein applies equally to the '427 patent, which will also be relied upon by Respondents to invalidate the asserted patent claims.

The administrative law judge finds the language of respondents cited supra vague as to "secondary references" when compared to the language of ground rule 9(viii), which requires that respondents set forth the "specific applicability of each citation of prior art [to asserted claim 1 of the '276 patent and]..., citing the specific portion of the prior art referred to, e.g. by page and column, etc." Said arguments with respect to asserted claim 1 of the '276 patent are also not meaningful because of their reference to other patents, viz. the '722 and '658 patents and to "anticipation" which is a statutory requirement distinct from the "obviousness" section of 35

U.S.C. § 103. In issue is claim 1 of the '276 patent, not U.S. Patent No. 5,382,722 (the '722 patent) or U.S. Patent No. 5,744,658 (the '658 patent), which have claims distinct from asserted claim 1 of the '276 patent. Hence, the administrative law judge finds no support in said section "d" at pages 288-90 of respondents' pre-hearing statement for item (11) supra of RReBr which references GB 819,949 or U.S. Patent No. 2,885,427 as primary references.

Respondents on pages 290-1 of their pre-hearing statement set out the following:

- e. Claim 1 of the '276 Patent Is Obvious In View of the Marangoni Reference Alone or In Combination with One or More Secondary References

Claim 1 of the '276 patent is obvious in view of the Marangoni reference either alone or in combination with one or more secondary references, as shown in the chart below. See above discussions regarding the Marangoni as set forth above regarding the '722 and '658 patents and anticipation of claim 1 of the '276 patent and secondary references cited therein.

(emphasis added). There follows a chart with the headings "Claim 1 of the '276 Patent" and "Marangoni Reference." Under "Marangoni Reference" there is the language:

To the extent it is argued by Complainants or Dr. Manzer that the Marangoni reference does not disclose the reverse reactor sequence or the claimed "passing," see the above discussions, including the identification of secondary references cited therein, on this issue.

\* \* \*

To the extent it is argued by Complainants or Dr. Manzer that Marangoni does not disclose that the TCE-HF reaction temperature is lower than that for the 133a and HF reaction, see the above discussions, including the identification of secondary references cited therein, on this issue.

To the extent it is argued by Complainants or Dr. Manzer that Marangoni does not disclose this claim element or recycling, see the above discussions, including the identification of secondary references cited therein, on this issue.

(emphasis added.) As with section “d” of respondents’ pre-hearing statement, the administrative law judge finds no support in the contents of said section “e” of said pre-hearing statement, supra, which statement does not specifically identify the secondary references for any of items (2), (3) and (4) supra of RReBr which reference the Marangoni reference.

Respondents on pages 291-93 of their pre-hearing statement has a section which reads:

- f. Claim 1 of the ‘276 Patent Is Obvious In View of EP 0408 005 Alone or In Combination with One or More Secondary References

Claim 1 of the ‘276 patent is obvious in view of EP ‘005 either alone of [sic] in combination with one or more secondary references, as shown in the chart below. See above discussions regarding these patents as set forth above regarding the ‘722 and ‘658 patents and anticipation of claim 1 of the ‘276 patent and secondary references cited therein.

EP0 408 005 is not recited in paragraph 2 of the Commission’s remand ORDER. Hence, said portion of respondents’ pre-hearing statement is irrelevant for determining whether respondents’ arguments on obviousness in their RReBr were sufficiently raised in their pre-hearing statement.

Respondents at pages 294-95 of their pre-hearing statement argued:

- g. Claim 1 of the ‘276 Patent Is Obvious In View of USPN 2,005,710 Alone or In Combination with One or More Secondary References

Claim 1 of the ‘276 patent is obvious in view of the ‘710 patent either alone of [sic] in combination with one or more secondary references, as shown in the chart below. See above discussions regarding the ‘710 patent as set forth above regarding the ‘722 and ‘658 patents and anticipation of claim 1 of the ‘276 patent and secondary references cited therein.

(emphasis added). There follows a chart with the headings “Claim 1 of the ‘276 Patent” and “USPN 2,005,710,” Under the latter heading there is the language:

To the extent it is argued by Complainants or Manzer that the '710 patent does not disclose two reaction zones or the reverse reactor series configuration, see the above discussions, including the identification of secondary references cited therein. on these issues.

'710 patent, p. 3, 253-57; p. 12, 2:28-71. To the extent it is argued that this reaction is not disclosed in the '710 patent, see the below discussion on this issue and secondary references cited therein. . . . To the extent it is argued by Complainants or Manzer that the '710 patent does not disclose two reaction zones or the reverse reactor series configuration, see the above discussions, including the identification of secondary references cited therein on these issue.

To the extent Complainants or Manzer argue that "superatmospheric pressure" is not disclosed in the '710 patent, see the above discussion on this claim element and '710 patent, p.14, 1:66, 2: 17-22; Example XVIII.

To the extent it is argued that this reaction temperature for this reaction is not disclosed in the '710 patent, see the discussions above, including the identification of secondary references cited therein, on these issues.

'710 patent, p. 12, 1:11-30; p. 14, 1:46; Example XVIII. To the extent it is argued that the '710 patent does not disclose that the temperature of the TCE-HF reaction is lower than that for the TFCE-HF reaction, see discussion above on this issue.

(emphases added). The administrative law judge finds the language, supra, in said pre-hearing statement, which makes reference to the '722 and '658 patents, not in issue, and to undefined "secondary references" vague considering the requirements of ground rules 9(vi) and 9(viii). Hence, he finds no support in the contents of said section "g", supra, of said pre-hearing statement for item (11) supra of RReBr which references U.S. Patent No. 2,005,710.

Respondents at pages 296-97 of their pre-hearing statement argued:

h. Claim 1 of the '276 Patent Is Obvious In View of Great Britain Patent No. 1,307,224 or USPN 3,755,477 Alone or In Combination with One or More Secondary References.

Neither the GB '224 patent nor the '477 US patent are listed in paragraph 2 of the Commission's remand Order. Hence, said portion of respondents' pre-hearing statement is irrelevant for

determining whether respondents' arguments on obviousness in their RReBr were sufficiently raised in their pre-hearing statement.

Respondents at pages 297-99 of their pre-hearing statement argued:

- i. Claim 1 of the '276 Patent Is Obvious In View of USPN 5,157,172 Alone or In Combination with One or More Secondary References.

Said '172 US patent is not listed in paragraph 2 of the Commission's remand Order and hence section i of respondents' pre-hearing statement is irrelevant for determining whether respondents' arguments on obviousness in their RReBr were sufficiently raised in their pre-hearing statement, as was their previous section h of respondents' pre-hearing statement.

Respondents at pages 299-301 of their pre-hearing statement has a heading:

- j. Claim 1 of the '276 Patent Is Obvious In View of Great Britain Patent No. 1,589,924 Alone or In Combination with One or More Secondary References.

Following said heading it is stated:

Claim 1 of the '276 patent is obvious in view of 'GB 924 either alone of [sic] in combination with one or more secondary references, as shown in the chart below. See above discussions regarding these patents as set forth above regarding the '722 and '658 patents and anticipation of claim 1 of the '276 patent and secondary references cited therein.

(emphasis added). Thereafter said chart is set forth with the headings "Claim 1 of the '276 Patent" and "GB 1,589,924" Said chart states inter alia:

To the extent it is argued by Complainants or Dr. Manzer that the GB '924 does not disclose two reaction zones, the reverse reactor series configuration, or the reaction of 133a and HF, see the above discussions, including the identification of secondary references cited therein, on these issues. To the extent it is argued by Complainants or Manzer that GB '924 does not disclose two reaction zones, the reverse reactor series configuration, or "passing," see above discussions regarding these claim elements. See also EPO Decision in Opposition to EP 0 449 617.



GB '924, p. 1, Ins. 8-14, 13-19, p. 1, ln. 45-p. 2, ln. 2; p. 2, Ins. 3-4, 25-29, 47-48; Examples. A person of ordinary skill in the art at the relevant time would have known that 134a, HCl, and unreacted starting materials 133a and HF are necessarily present in the product stream of the claimed reaction between 133a and HF with a fluorination catalyst. See also EPO Decision in Opposition to EP O 449 617. To the extent it is argued by Complainants or Manzer that the '710 patent does not disclose two reaction zones or the reverse reactor series configuration, see above discussions regarding these claim elements.

\* \* \*

GB '924, p. 1, Ins. 42-43 (preferred temperatures are 300-400° C); p. 2 Ins. 34-56. See also EPO Decision in Opposition to EP O 449 617. To the extent it is argued by Complainants or Dr. Manzer that the GB '024 does not disclose the reverse reactor sequence or the claimed "passing," see the above discussion on this issue, including the secondary references cited therein.

To the extent it is argued that this relatively lower reaction temperature for this reaction is not disclosed in GB '924, see the discussions above, including the identification of secondary references cited therein, on these issues.

(emphasis added). Said reference, supra, to the EPO Decision in Opposition to EP O 449 617 has no relevance here because since EPO 449 617 is not prior art. In addition the references supra to "secondary references" and "above discussion(s)" are vague, and neither EP '617 nor EP '614 are not listed in paragraph 2 of the Commission's remand ORDER. Thus the administrative law judge finds no support in said section "j" of respondents' pre-hearing statement for items (5) and (6) of their RReBr which reference GB 1,589,924.

Respondents at pages 301-03 of their pre-hearing statement state:

- k. Claim 1 of the '276 Patent Is Obvious In View of Great Britain Patent No. 2,030,981 A Alone or In Combination with One or More Secondary References Patent No.

Claim 1 of the '276 patent is obvious in view of GB '981 either alone of [sic] in combination with one or more secondary references, as shown in the chart below. See above discussions regarding GB '981 as set forth above regarding the '722 and '658 patents and anticipation of claim 1 of the '276 patent and secondary

references cited therein.

(emphasis added). There follows a chart with the headings “Claim 1 of the ‘276 Patent” and “GB 2,030,981.” Under said heading “GB 2,030,981” it is stated:

To the extent it is argued by Complainants or Dr. Manzer that the GB ‘981 does not disclose two reaction zones, the reverse reactor series configuration, or the reaction of 133a and HF, see the above discussions, including the identification of secondary references cited therein, on these issues. To the extent it is argued by Complainants or Manzer that GB ‘981 does not disclose two reaction zones, the reverse reactor series configuration, or “passing,” see above discussions regarding these claim elements. See also EPO Decision in Opposition to EP 0 449 6 17.

\* \* \*

To the extent it is argued that this reaction temperature for this reaction is not disclosed in GB ‘981, see the discussions above, including the identification of secondary references cited therein, on these issues.

To the extent it is argued by Complainants or Dr. Manzer that GB ‘981 does not disclose this claim element or recycling, see the above discussions, including the identification of secondary references cited therein, on this issue.

(emphasis added) The reference to the EP0 Decision in Opposition to EP0 449 617 has no relevance here because EP0 449 617 is not prior art. Moreover, it is unclear from the language of the chart supra in its reference to “secondary references” what GB 2,030,981 discloses. Also the language “above discussions” and references to the ‘722 and ‘658 patents and “anticipation” are vague. Thus the administrative law judge finds no support in the contents of said section “k” supra of said pre-hearing statement for any of items (5) or (10) of respondents’ RReBr which references GB 2,030,981.

Respondents’ pre-hearing statement at 303-04 states:

1. Claim 1 of the ‘276 Patent Is Obvious In View of USPN 4,129,603 Alone or In Combination with One or More Secondary References



Claim 1 of the '276 patent is obvious in view of the '603 patent either alone of [sic] in combination with one or more secondary references, as shown in the chart below. See above discussions regarding the '603 patent as set forth above regarding the '722 and '658 patents and anticipation of claim 1 of the '276 patent and secondary references cited therein.

Said referenced chart has the headings "Claim 1 of the '276 Patent" and "USPN 4,129,603." Under the latter heading it is stated, inter alia:

To the extent it is argued by Complainants or Dr. Manzer that the '603 patent does not disclose this reaction, two reaction zones, the reverse reactor series configuration, "passing." or the reaction of 133a and HF, see the above discussions, including the identification of secondary references cited therein, on these issues. See also EPO Decision in Opposition to EP 0 449 617.

\* \* \*

To the extent it is argued that this relatively lower reaction temperature for this reaction is not disclosed in the '603 patent, see the discussions above, including the identification of secondary references cited therein, on these issues.

(emphasis added). The referenced EP 0449 617 in said chart has no relevance here because it is not prior art. Moreover, the administrative law judge finds language such as "see the above discussions, including the identification of secondary references therein, on the issues" vague and indefinite. In addition, the '722 and '658 patents are not in issue nor is "anticipation" in this section. Hence, he finds no support in the contents of said section "1", supra of said pre-hearing statement for any of items (5) and (7) of RReBr which references the '603 patent.

Pages 304-305 of respondents' pre-hearing statement states:

m. Claim 1 of the '276 Patent Is Obvious In View of USPN 4,158,675 Alone or In Combination with One or More Secondary References

Claim 1 of the '276 patent is obvious in view of the '675 patent references either alone of [sic] in combination with one or more secondary references, as shown in the chart below. See above discussions regarding the '675 patent as set forth above regarding the '722 and '658 patents and anticipation of claim 1 of the

'276 patent and secondary references cited therein.

(emphasis added). The referenced chart refers to EP 0449 617 which is not prior art. It also states:

To the extent it is argued that this relatively lower reaction temperature for this reaction is not disclosed in the '675 patent, see the discussions above, including the identification of secondary references cited therein, on these issues.

(emphasis added.) The administrative law judge finds such language “see the discussions above, including the identification of secondary references cited therein, on these issues” vague and ambiguous. Also in issue here is claim 1 of the '276 patent, not the '722 and '658 patents. In addition, anticipation is not an issue in this section. Thus he finds no support in said section “m” of said pre-hearing statement for items (5) and (8) of RReBr which references the '675 patent.

Page 305 of respondents' pre-hearing statement states:

n. Claim 1 of the '276 Patent Is Obvious In View of USPN 4,922,037 Alone or In Combination with One or More Secondary References

Claim 1 of the '276 patent is obvious in view of the '037 patent either alone of [sic] in combination with one or more secondary references, as shown in the chart below. See above discussions regarding the '037 patent as set forth above regarding the '722 and '658 patents and anticipation of claim 1 of the '276 patent and secondary references cited therein.

(emphasis added). The administrative law judge finds the language “See above discussions .... secondary reference cited therein” vague and ambiguous. Moreover said '722 and '658 patents are not in issue and it is unclear as to the reference to “anticipation.” In addition, the '722 and '658 patents are distinct from claim 1 of the '276 patent which is in issue. Hence, the administrative law judge finds that section “n” of respondents' pre-hearing statement, which is the last section of respondents' pre-hearing statement that relates to validity of claim 1 of the

'276 patent on alleged prior art, provides no support for items (5) and (9) of RReBr which references the '037 patent.

Based on the foregoing, the administrative law judge finds that respondents did not raise in their pre-hearing statement the issues regarding obviousness as argued by respondents in their RReBr.

IV. Whether Respondents' Arguments In Respondents' Remand Initial Brief Have Merit Assuming Arguendo They Were Sufficiently Raised

Respondents have the burden of overcoming the presumption that the asserted claim 1 of the '276 patent is valid and must prove invalidity by clear and convincing evidence.<sup>9</sup>

Technology Licensing Corp. v. Videotek, Inc., 545 F.3d 1316, 1327 (Fed. Cir. 2008) (Tech. Licensing) (stating, "When an alleged infringer attacks the validity of an issued patent, [the] well-established law places the burden of persuasion on the attacker to prove invalidity by clear and convincing evidence." (emphasis added)). Respondents' burden of persuasion never shifts to complainant; the risk of "decisional uncertainty" remains on respondents. Id.; see also PowerOasis, Inc. v. T-Mobile USA, Inc., 522 F.3d 1299, 1303, 1305 (Fed. Cir. 2008); Pfizer, Inc. v. Apotex, Inc., 480 F.3d 1348, 1360 (Fed. Cir. 2007) (Pfizer). Thus, it is respondents' burden to prove by clear and convincing evidence that the prior art anticipates or renders obvious claim 1 of the '276 patent.<sup>10</sup> Failure to do so means that respondents lose on that point. Id. (stating, "[I]f

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<sup>9</sup> This assumes, arguendo, that respondents sufficiently raised arguments of anticipation and obviousness in their pre-hearing statement.

<sup>10</sup> "Generally, all patents, publications and public uses which have been in existence prior to a patentee's date of invention or more than a year prior to his filing date are referred to as 'prior art.'" Mohasco Indus., Inc. v. E. T. Barwick Mills, Inc., 221 F. Supp. 191, 195 (N.D. Ga. 1963). Any reference that does not pre-date claim 1 of the '276 patent does not qualify as "prior art."

the fact trier of the issue is left uncertain, the party with the burden [of persuasion] loses.”).

Respondents also bear the burden of going forward with evidence, *i.e.*, the burden of production.

*Id.* This is “a shifting burden the allocation of which depends on where in the process of a trial the issue arises.” *Id.* However, this burden does not shift until respondents present “evidence that might lead to a conclusion of invalidity.” *Pfizer*, 480 F.3d at 1360. Once a respondent “has presented a prima facie case of invalidity, the patentee has the burden of going forward with rebuttal evidence.” *Id.*

Regarding anticipation<sup>11</sup>, the patent statute dictates that a person is not entitled to a patent if:

the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States . . . .

35 U.S.C. §102(b). “Claimed subject matter is ‘anticipated’ when it is not new; that is, when it was previously known. Invalidation on this ground requires that every element and limitation of the claim was previously described in a single prior art reference, either expressly or inherently, so as to place a person of ordinary skill in possession of the invention.” *Sanofi-Synthelabo v.*

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It is undisputed that the Marangoni reference (RX-169), as well as certain other references cited by the Commission in paragraph 2 of its Remand Order, are prior art. Moreover, as referenced in fn 4 *supra*, the inventors on the ‘276 patent have admitted to certain prior art. However, while it may be admitted that a particular reference is in the prior art, such is not the equivalent of admitting that said prior art constitutes a disclosure that renders the claimed invention in the ‘276 patent anticipated or obvious. *See, e.g., In re Kumar*, 418 F.3d 1361, 1368 (Fed. Cir. 2005) and *Reading & Bates Constr. Co. v. Baker Energy Resources Corp.*, 748 F.2d 645, 651-52 (Fed. Cir. 1984).

<sup>11</sup> Anticipation is a two-step inquiry: first, the claims of the asserted patent must be properly construed, and then the construed claims must be compared to the prior art reference. *See, e.g., Medichem, S.A. v. Rolabo, S.L.*, 353 F.3d 928, 933 (Fed. Cir. 2003).

Apotex, Inc., 550 F.3d 1075, 1082 (Fed. Cir. 2008) (emphasis added) (Sanofi) (citing Schering Corp. v. Geneva Pharms., Inc., 339 F.3d 1373, 1379 (Fed. Cir. 2003) and Continental Can Co. USA v. Monsanto Co., 948 F.2d 1264, 1267-69 (Fed. Cir. 1991)).

To anticipate, a prior art reference must be enabling and it must describe the claimed invention, *i.e.*, a person of ordinary skill in the field of the invention must be able to practice the subject matter of the patent based on the prior art reference without undue experimentation. Sanofi, 550 F.3d at 1082. The presence in said reference of both a specific description and enablement of the subject matter at issue are required. Id. at 1083.

To anticipate, a prior art reference also must disclose all elements of the claim within the four corners of said reference. Net MoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359, 1369 (Fed. Cir. 2008) (NMI); *see also* Abbott Labs. v. Sandoz, Inc., 544 F.3d 1341, 1345 (Fed. Cir. 2007) (stating, “Anticipation is established by documentary evidence, and requires that every claim element and limitation is set forth in a single prior art reference, in the same form and order as in the claim.”). Further, “[b]ecause the hallmark of anticipation is prior invention, the prior art reference--in order to anticipate under 35 U.S.C. § 102--must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements ‘arranged as in the claim.’” Id. (quoting Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548 (Fed. Cir. 1983) (Connell)). The Federal Circuit explained this requirement as follows:

The meaning of the expression ‘arranged as in the claim’ is readily understood in relation to claims drawn to things such as ingredients mixed in some claimed order. In such instances, a reference that discloses all of the claimed ingredients, but not in the order claimed, would not anticipate, because the reference would be missing any disclosure of the limitations of the claimed invention ‘arranged as in the claim.’ But the ‘arranged as in the claim’

requirement is not limited to such a narrow set of ‘order of limitations’ claims. Rather, our precedent informs that the ‘arranged as in the claim’ requirement applies to all claims and refers to the need for an anticipatory reference to show all of the limitations of the claims arranged or combined in the same way as recited in the claims, not merely in a particular order. The test is thus more accurately understood to mean ‘arranged or combined in the same way as in the claim.’

Id. at 1370 (emphasis added). Therefore, it is not enough for anticipation that a prior art reference simply contains all of the separate elements of the claimed invention. Id. at 1370-71 (stating that “it is not enough [for anticipation] that the prior art reference discloses part of the claimed invention, which an ordinary artisan might supplement to make the whole, or that it includes multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention.” (emphasis added)). Those elements must be arranged or combined in said reference in the same way as they are in the patent claim. Moreover, when dealing with temperature ranges shown in a single prior art reference, the difference between the claimed range and the range in said reference must be sufficiently insignificant to indicate to a reasonable fact-finder that said reference describes the claimed range with sufficient specificity to anticipate the range limitation of the claim. See Atofina v. Great Lakes Chem. Corp., 441 F.3d 991, 998-1000 (Fed. Cir. 2006).

If a prior art reference does not expressly set forth a particular claim element, it still may anticipate the claim if the missing element is inherently disclosed by said reference. Trintec Indus., Inc. v. Top-U.S.A. Corp., 295 F.3d 1292, 1295 (Fed. Cir. 2002) (Trintec); In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999). Inherent anticipation occurs when “the missing descriptive material is ‘necessarily present,’ not merely probably or possibly present, in the prior



art.” Id.; see also Rhino Assocs. v. Berg Mfg. & Sales Corp., 482 F. Supp.2d 537, 551 (M.D. Pa. 2007). In other words, inherency may not be established by probabilities or possibilities. See Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268 (Fed. Cir. 1991). Thus, “[t]he mere fact that a certain thing may result from a given set of circumstances is not sufficient.” Id.

The critical question for inherent anticipation here is whether, as a matter of fact, a reference necessarily features or results in each and every limitation of claim 1 of the ‘276 patent. See, e.g., Toro Co. v. Deere & Co., 355 F.3d 1313, 1320 (Fed. Cir. 2004). Such is the case even if one of ordinary skill in the art would not have recognized said inherent anticipation at the time of the invention of the ‘276 patent. Id. at 1320-21.

Respondents argued that anticipation may be shown if a skilled artisan can combine his own knowledge with the teachings of the prior art reference and be in possession of the invention. (RReBr at 5, 10-11 (citing In re Graves, 69 F.3d 1147, 1152 (Fed. Cir. 1995) and In re LeGrice, 301 F.2d 929 (C.C.P.A. 1962)).) However, the Federal Circuit has repeatedly stated that “anticipation requires that each limitation of a claim must be found in a single reference.” Teleflex, Inc. v. Ficoso N. Am. Corp., 299 F.3d 1313, 1334-35 (Fed. Cir. 2002) (emphasis added) (rejecting an argument based on In re Graves that “a prior art reference may anticipate if a skilled artisan could take the reference’s teachings in combination with his own knowledge of the particular art and be in possession of the invention.”) In addition, while the knowledge of a “skilled artisan” is relevant to an anticipation analysis, such person’s knowledge must be more than simply an “awareness” of, e.g., each separate step of a claimed invention.<sup>12</sup> See In re

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<sup>12</sup> Respondents argued that the “skilled artisan” with respect to the ‘276 patent was “aware of the known two step sequential reaction of reaction 1 and reaction 2, along with the recycle step.” (RReBr at 10.)

LeGrice, 301 F.2d at 939. The administrative law judge finds that respondents fail to recognize that the cases on which they rely specifically require that, in order to anticipate, the description in a single prior art reference must be “so precise and so particular that any person skilled in the art to which the invention belongs can construct and operate it without experiments and without further exercise of inventive skill.” Id. at 933 (emphasis added). In other words:

[T]he description [in the prior art] must place the [claimed] invention in the possession of the public as fully as if the art or instrument itself had been practically and publicly employed. In order to accomplish this, it must be so particular and definite that from it alone, without experiment or the exertion of his own inventive skill, any person versed in the art to which it appertains could construct and use it.

Id. at 933-34 (emphasis added). A skilled artisan must be able to “gain possession of the claimed subject matter” without having to conduct any undue experimentation. In re Sheppard, 339 F.2d 238, 242 (C.C.P.A. 1964); see also Sanofi, 550 F.3d at 1082.

If there are “slight differences” between separate elements disclosed in a prior art reference and the claimed invention, those differences “invoke the question of obviousness, not anticipation.” NMI, 545 F.3d at 1071 (emphasis added); see also Trintec, 295 F.3d at 1296 (finding no anticipation and stating that “the difference between a printer and a photocopier may be minimal and obvious to those of skill in this art. Nevertheless, obviousness is not inherent anticipation.”). Statements such as “one of ordinary skill may, in reliance on the prior art, complete the work required for the invention,” and that “it is sufficient for an anticipation if the general aspects are the same and the differences in minor matters is only such as would suggest itself to one of ordinary skill in the art,” actually relate to obviousness, not anticipation. Connell, 722 F.2d at 1548.



Included within the presumption of validity is a presumption of non-obviousness. Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 714 (Fed. Cir. 1984). Regarding non-obviousness, the patent statute dictates that a person is not entitled to a patent if the differences between the claimed invention and the prior art “are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.” 35 U.S.C. §103. The underlying factual inquiries relating to non-obviousness include: 1) the scope and content of the prior art, 2) the level of ordinary skill in the art, 3) the differences between the claimed invention and the prior art, and 4) secondary considerations of non-obviousness, such as long-felt need, commercial success, and the failure of others. See Graham v. John Deere Co., 383 U.S. 1, 17 (1966). Obviousness here may be based on the references cited by the Commission in paragraph 2 of its Remand Order, or a combination of the same (assuming arguendo the respondents had sufficiently raised their arguments), and what a person of ordinary skill in the art would understand based on his or her knowledge and said references. If all of the elements of an invention are found in a combination of prior art references:

a proper analysis under § 103 requires, inter alia, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure.

Velander v. Garner, 348 F.3d 1359, 1363 (Fed. Cir. 2003) (emphasis added) (internal citations omitted).

The critical inquiry in determining the differences between the claimed invention and the prior art is whether there is a reason to combine the prior art references. See C.R. Bard v. M3 Sys., 157 F.3d 1340, 1352 (Fed. Cir. 1998). For example, as the Supreme Court recently stated in KSR International Co. v. Teleflex Inc., 550 U.S. 398 (2007) (KSR):

[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

Id. at 418-19 (emphasis added). The Supreme Court rejected a rigid application of the “teaching, suggestion, motivation” test that may be used to determine whether a reason to combine references exists. Id. at 419-22. A suggestion to combine need not be express and may come from the prior art, as filtered through the knowledge of one skilled in the art. See Certain Lens-Fitted Film Pkgs., Inv. No. 337-TA-406, Order No. 141 at 6 (May 24, 2005).

Generally, a prior art reference that teaches away from the claimed invention does not create a prima facie case of obviousness. In re Gurley, 27 551, 553 (Fed. Cir. 1994); see also Andersen Corp. v. Pella Corp., No. 2007-1536, 2008 U.S. App. LEXIS 24087, \*13-18 (Fed. Cir. Nov. 19, 2008); Certain Rubber Antidegradants, Inv. No. 337-TA-533 (Remand), Final ID (Dec. 3, 2008) (stating, “KSR reaffirms that obviousness is negated when the prior art teaches away from the invention.”)). However, the nature of the teaching is highly relevant. Id. “A reference

may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *Id.* (emphasis added). For example, “a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant.” *Id.*

A. Whether Respondents’ Anticipation Arguments Have Merit

Respondents’ only argument in their RReBr on anticipation is that the Marangoni reference (RX-169) anticipates claim 1 of the ‘276 patent. (RReBr at 71-76.) Regarding the merits of respondents’ argument in their RReBr, it has never been disputed that the Marangoni reference fails to disclose the recycle limitation of asserted claim 1 of the ‘276 patent.<sup>13</sup> For example, respondents’ expert testified as follows:

Q. Does the Marangoni reference, RX- 169, disclose recycling?

A. No.

(Gumprecht, Tr. at 837.)

A. Again, the thing that may be missing is recycle, because I don’t think that recycle is reported. . . And finally, the recycle, as I say, recycle is not there.

(Gumprecht, Tr. at 1066.) Similarly, complainants’ expert testified as follows:

Q. Is there any disclosure in the Marangoni reference regarding a recycle of unconverted 133a?

A. No.

(Manzer, Tr. at 1284.) In addition, the administrative law judge finds no mention of the word,

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<sup>13</sup> The recycle limitation is as follows: “unconverted 1,1,1-trifluoro-2-chlooethane [R-133a] is recycled for further reaction with hydrogen flouride.” (JX-5).

or concept of, recycling, in the Marangoni reference. (RX- 169). Thus, this alone is sufficient to show that respondents have not met their burden of proving invalidity based on anticipation, because to do so requires that every element and limitation be disclosed is a single prior art reference. See Sanofi, 550 F.3d at 1082; NMI, 545 F.3d at 1369.

Respondents argued that Marangoni “inherently discloses that unconverted 1,1,1-trifluoro-2-chloroethane is recycled for further reaction with hydrogen fluoride.” (RReBr at 73.) Inherency requires that a limitation be necessarily present, even if it’s not explicitly mentioned. See Trinte, 295 F.3d at 1295. The Marangoni reference discusses the preparation of a fluorination catalyst, and provides various examples of bench-scale fluorination reactions. (CFF VI. 138 (undisputed).) The administrative law judge finds nothing in the record to suggest that a bench-scale test disclosed in Marangoni necessarily would have been rigged to provide separation of R-133a, and then a recycle thereof. The Marangoni reference (RX-169) is to test the operation of a catalyst, not a recycle of reagents. Thus, the administrative law judge finds that the recycle limitation of claim 1 of the ‘276 patent is not inherently disclosed in the Marangoni reference.

As for the claimed “temperature range of 250° -450° C for the 1,1,1-trifluoro-2-chloroethane reaction and the claimed “temperature in the range of 200°-400°C” for the trichloroethylene reaction with hydrogen fluoride in asserted claim 1 of the ‘276 patent, both sides’ experts agreed that the Marangoni reference fails to disclose the relative temperature difference limitations of the asserted claim of the ‘276 patent. For example, respondents’ expert testified that “[t]here is no specific requirement that say it has - - the first reaction has to be a lower temperature.” (Gumprecht, Tr. at 1066.) Similarly, complainants’ expert testified that, “I

do agree with Dr. Gumprecht that there is no requirement that the first reaction be carried out at temperature lower than the second reaction.” (Manzer, Tr. at 1283.) Again, non-disclosure of these claim limitations weight against anticipation. See Sanofi 550 F.3d at 1082-83; NMI, 545 F.3d at 1369-71.

It also undisputed that the Marangoni reference fails to disclose the limitation of asserted claim 1 of the ‘276 patent that the R-133a made in reaction zone (1) is used as a reagent in reaction zone (2) to be converted to R-134a. For example, respondents’ expert testified as follows:

Q. [by Mr. McDermott] But there is no discussion of feeding [133a] or using it from one reaction to the other reaction, is there?

A. No specific statement that they took the material out of the first reaction to then feed it to the second reaction.

Q. And, in fact, those two reactions are discussed separately in the article, one shown in one table and one shown in another table; isn’t that right?

A. That’s right.

(Gumprecht, Tr. at 1068) Complainants’ expert testified similarly:

Q. And where [Marangoni] discloses converting 133a to 134a, does it state where the 133a comes from?

A. No, it does not.

\* \* \*

Q. Is it your testimony that that is not - withdrawn. Wouldn’t it be common sense to use the 133a you just made if you are going to then react 133a with HF?

A. No, not at all.

- Q. All right. That's your testimony. Let me ask you this. If you are going to make 134a in a two-step sequential reaction as disclosed in your patent, '482 patent, RX- 119, you are going to use the 133a you made in the TCE/HF reaction, which is red to the second reaction zone for 133dHF - 133a plus HF reaction to make 134a, correct?
- A. You are asking me if Marangoni would have taken the 133a and used it to convert 133a to 134a. My answer is it doesn't say anything about where he got his 133a from.
- Q. Do you think he went down to the chemical supermarket and looked to buy 133a when he made it there and it was sitting on his lab bench?
- A. I would have gone to the Aldredge catalogue and ordered up a canister of 133a rather than having to purify the little bit of 133a I made in my trichlene reaction.

(Manzer, Tr. at 1283, 1416-17.) As respondents' expert Gumprecht's testimony illustrates, the Marangoni reference simply lists the conversion of R-133a to R-134a and the conversion of trichloroethylene to R-133a as two different examples of reactions that the catalyst can achieve. They are never discussed together. Moreover, Marangoni details its testing apparatus, and the fact that the ultimate fate of the organic material, i.e. the R-133a, is venting to the atmosphere. (See RX- 169 at SIN00003402.) Thus the illustration at page 136 of RX-169 indicates that any R-133a created in the Marangoni tests would have vented off to the atmosphere as shown by a cloud at the right of the illustration, and would not have been used for the conversion of R-133a to R-134a.

Respondents argued that complainants have failed to show how the temperature ranges of claim 1 are critical and inventive over the temperatures disclosed in Marangoni. (RReBr at 83.) It is respondents' burden however, to establish, by clear and convincing evidence, that asserted



claim 1 of the '276 patent is invalid over the prior art.

Respondents rely on Iron Grip Barbell Co. v. USA Sports, Inc., 392 F.3d 1317 (Fed. Cir. 2004) (Iron Grip) for the proposition that the existence of overlapping or encompassing ranges shifts the burden to the patent holder to show that the claimed range is critical. (RReBr at 62.)

However, the Iron Grip case states that:

Nonetheless, where there is a range disclosed in the prior art, and the claimed invention falls within that range, there is a presumption of obviousness. But the presumption will be rebutted if it can be shown: (1) That the prior art taught away from the claimed invention, In re Geisler, 116 F.3d 1465, 1471 (Fed.Cir.1997); or (2) that there are new and unexpected results relative to the prior art, In re Woodruff, 919 F.2d 1575, 1578 (Fed.Cir.1990).

There is, to be sure, one distinguishing feature of these range cases. Each involved a range disclosed within a single patent, while here the range is disclosed in multiple prior art patents. But, under the circumstances of this case, that is a distinction without a difference. The prior art suggested that a larger number of elongated grips in exercise weights was beneficial, thus plainly suggesting that one skilled in the art look to the range appearing in the prior art. The prior art disclosed weight plates with one, two and four elongated handles. Iron Grip is claiming a weight plate with three elongated handles, within the range of the prior art.

It is also manifest that neither of the recognized exceptions applies here. First, Iron Grip offers no evidence that the prior art taught away from the invention besides the broad conclusory statement that “the prior art ... taught towards fewer grips.” (Reply Br. of Appellant at 14.) The prior art does not support this conclusion. There is no evidence of “sufficient teaching away.” In re Malagari, 499 F.2d 1297, 1303 (C.C.P.A.1974).

(Id. at 1322 (emphasis added).)

Thus Iron Grip indicates (1) that in Iron Grip, the prior art references taught in the same direction toward a larger number being beneficial; (2) that the number being claimed fall entirely



within the range of the prior art; and (3) that, in Iron Grip, there was no evidence of teaching away or unexpected results (either of which, on their own, constitute an exception to the presumption of obviousness).

In the instant case there are not only multiple prior art references that may disclose overlapping temperatures, but the multiple prior art references teach in completely divergent directions, some indicating higher or lower ranges than the claimed temperature ranges, and some indicating that the trichloroethylene reaction be conducted at the same or a higher temperature than the 1,1,1-trifluoro-2-chloroethane reaction depending on the goals sought to be accomplished by the various patents, as opposed to the lower temperature of the trichloroethylene reaction claimed by claim 1 of the asserted patent. See, e.g., U.S. Patent No. 4,158,675 which discloses that the fluorination of 1,1,1-trifluoro-2-chloroethane occurs at a temperature in the range of 300-400° C., U.S. Patent No. 4,128,603 patent which discloses that the fluorination of 1,1,1-trifluoro-2-chloroethane occurs at a temperature in the range of 300-400°C.; and GB 819,849 which discloses a single temperature within the preferred range of 300-400°C for the reaction of trichloroethylene and hydrogen fluoride to produce both 1,1,1-trifluoro-2-chloroethane and 1,1,1,2-tetrafluoroethane in a single reactor. (See RX-122.) Thus, the administrative law judge finds that the evidence shows that the prior art teaches in divergent directions, including away from the temperature ranges and differential taught by asserted claim 1 of the '276 patent. See In re Gurley, 27 F.3d 551, 553 (Fed. Cir.1994) (“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, ... would be led in a direction divergent from the path that was taken by the applicant.”). In addition, the claimed temperature range for the reaction zone 2, i.e., 250°-450°C, does not fall entirely within the range

disclosed by the prior art.

Asserted claim 1 of the '276 patent also recites "a method for the production of 1,1,1,2-tetrafluoroethane [R-134a] in two separate reaction zones." (JX-5 (emphasis added).) In contrast the Marangoni reference (RX-169) is directed to lab-scale testing of a particular catalyst. It lists two discreet, independent examples of fluorination reactions, viz. the conversion of trichloroethylene into R-133a and the conversion of R-133a into R-134a. However, the administrative law judge finds nothing in Marangoni which describes a single, integrated process in which two reactions are carried out in two separated reaction zones, much less a process that uses the product of the first reaction zone as a reagent in the second reaction zone.

Complainants' expert Manzer testified:

Q. [By Mr. Stevens]: Dr. Manzer, I would like to direct your attention now to RX-169, the Marangoni reference. So if we can have that put in front of you. Do have you that in front of your Dr. Manzer?

A. I do.

Q. Does the Marangoni reference disclose a process for the manufacture of 134a in two separate reaction zones?

A. No, it does not.

(Tr. at 1283.) Respondents argued that, to the extent that Marangoni is determined not to explicitly disclose the use of the 1,1,1-trifluoro-2-chloroethane made in the first reaction zone for the second reaction zone or recycle, Manzer admitted that these concepts were common knowledge to a person of ordinary skill in the art prior to the alleged invention of claim 1; that prior to the alleged invention of the '276 patent, it would have been "obvious to try" to combine the knowledge of a person skilled in the art with the catalyst testing system of Marangoni; and

that complainants' criticism that Marangoni is directed to a different problem, viz. catalyst analysis, is of no consequence, citing KSR, 127 S. Ct. at 1742 ("Common sense teaches, however, that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle."). (RReBr at 80-1.)

The administrative law judge finds that respondents are applying elements of an obviousness analysis to their anticipation argument, which is improper. See, e.g., NMI 545 F.3d at 1071; Trintes 295 F.3d at 1296; Connell, 722 F.2d at 1548. Moreover, in KSR with respect to obviousness, the Supreme Court reaffirmed the importance of identifying "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." KSR, 127 S.Ct. at 1741 (emphasis added). The Court rejected a rigid application of the "teaching, suggestion, or motivation to combine" test to help a factfinder avoid the application of improper hindsight. As noted by the Supreme Court, "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning." KSR, 127 S.Ct. at 1742.<sup>14</sup> Indeed, the Supreme Court has routinely cautioned the factfinder to avoid a "temptation to read into the prior art the teachings of the invention at issue." Graham, 383 U.S. at 36. Thus, as the Federal Circuit noted in a post-KSR case, it is "always inappropriate" to attempt to establish invalidity by "retrac[ing] the path of the inventor with hindsight, discount[ing] the number and complexity of

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<sup>14</sup> After KSR, a flexible "teaching, suggestion, or motivation to combine" test "remains the primary guarantor against a non-statutory hindsight analysis." Ortho-McNeil Pharmaceutical, Inc. v. Mylan Labs, Inc., 520 F.3d 1358, 1364 (Fed. Cir. 2008) (affirming the district court's finding of non-obviousness in view of KSR). (Ortho).

the alternatives, and conclud[ing] that the invention...was obvious.” Ortho, 520 F.3d at 1364.

“In retrospect, [the inventor's] pathway to the invention, of course, seems to follow the logical steps to produce these properties, but at the time of invention, the inventor's insights, willingness to confront and overcome obstacles, and yes, even serendipity, cannot be discounted.” Id.

Based on the foregoing, the administrative law judge finds that respondents have failed to present even a prima facie case of anticipation, assuming arguendo it was sufficiently raised, that the Marangoni reference anticipates claim 1 of the ‘276 patent.

B. Whether Respondents’ Obviousness Arguments Have Merit

Respondents, in their RReBr, argued that Marangoni alone or in combination with any references that discloses reaction 1 and/or any references that disclose reaction 2 or in combination with any one of the identified prior art references that disclose a recycle step renders obvious claim 1 of the ‘276 patent. (RReBr at 76-84, viz. items (2), (3) and (4) supra). With respect to respondents’ argument relating to Marangoni alone, the administrative law judge finds that nothing in the record establishes that one of ordinary skill in the art would have modified the Marangoni reference, which describes a series of independent reactions performed for the purpose of evaluating catalyst preparation methods (see RX-169), to add a recycling step, to carry out “reaction (1)” “at a temperature in the range of 200°-400°C but below that used in reaction (2),” to carry out the reaction of the 1,1,1-trifluoro-2-chloroethane produced in reaction (1) and hydrogen fluoride to produce 1,1,1,2-tetrafluoroethane in reaction zone (2)” or to produce 1,1,1,2-tetrafluoroethane in two separate reaction zones of one integrated method.” The administrative law judge rejects respondents’ “ex post reasoning”. See KSR, 127 S.Ct. at 1742. Accordingly, he finds that Marangoni alone does not render asserted claim 1 in issue obvious,

assuming arguendo said argument had been sufficiently raised.

Referring to respondents' arguments that Marangoni in combination with "any reference disclosing reaction 1 and/or any reference disclosing reaction 2" or with "any one of the identified prior art references that disclose recycl[ing] the following is the totality of respondents' expert Gumprecht's testimony regarding Marangoni as a primary reference:

Q. With respect to the Marangoni reference, RX-169, assuming that reference does not disclose the recycle limitation of unconverted 133a, would a person of ordinary skill in the art in 1987 have combined the Marangoni reference with any of the other references on your chart for a method to make 134a?

A. You would combine, would combine it with the Daikin, Manzer reference, and the EP 344,797.

(Tr. at 950-51 (emphasis added).) Each of said Daikin (JX-26), the Manzer reference (RX-119), and EP 344, 797 (RX-121) however were determined not to be prior art and are not a part of this remand. Moreover, the administrative law judge finds nothing in the prior art that would suggest combining Marangoni with "any reference disclosing reaction 1 and/or any reference disclosing reaction 2." In addition the administrative law judge finds that respondents have not established that the concept of recycling is viable in the Marangoni reference and hence he finds no reason to combine "any one of the identified prior art references that disclose recycl[ing]." Also, he finds lacking in said theoretical combinations of respondents a single, integrated process in which two reactions are carried out in two separated reaction zones.

Based on the foregoing, the administrative law judge finds that respondents have failed to present even a prima facie case of obviousness involving Marangoni, assuming arguendo, the alleged arguments had been sufficiently raised.

Respondents argued in their RReBr that each of GB 1,589,924 (RX-156), US 4,129,603 (RX-160), U.S. 4,158,675 (RX-161), US 4,922,037 (RX-120) and GB 2,030,981 (RX-157) alone renders claim 1 obvious. However, the administrative law judge finds that each of those patents discloses nothing more than the fluorination of 1,1,1-trifluoro-2-chloroethane at a temperature of 300-400°C, see e.g., RDX-119. Thus none of said references mentions trichloroethylene or its fluorination (much less the fluorination of trichloroethylene to yield 1,1,1-trifluoro-2-chloroethane), or discloses that the fluorination of trichloroethylene to yield 1,1,1-trifluoro-2-chloroethane should occur at a temperature in the range of 200-400°C, or discloses that the fluorination of trichloroethylene occurs at a temperature below that used to fluorinate 1,1,1-trifluoro-2-chloroethane, or discloses a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones. Hence, the administrative law judge finds that respondents have failed to present even a prima facie case of obviousness as to said references in issue, assuming arguendo said references were sufficiently raised.

Respondents argued in their RReBr at item (11) supra that each of U.S. 2,005,710, GB 819,849, US 2,885,427 or GS 1,307,224<sup>15</sup> alone renders claim 1 of the '276 patent obvious. Regarding the '710 patent, said patent does not mention or refer to 1,1,1-trifluoro-2-chloroethane in any way (RDX-119; RX-123), does not mention or refer to 1,1,1,2-tetrafluoroethane in any way (RX-123), does not mention or refer to a reaction temperature for the fluorination of trichloroethylene (RX-123), fails to disclose the fluorination of trichloroethylene at a temperature

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<sup>15</sup> The GB 1,307,224 patent is not listed in paragraph 2 of the Commission's Remand Order and is thus outside the scope of the remand. Also respondents treat the GB 819,849 and U.S. 2,885,427 as having the same disclosure. See RReBr at 91, fn. 56. Thus here respondents only alleged two discrete references.



in the range of 200-400°C to yield 1,1,1-trifluoro-2-chloroethane but rather discloses that carbon tetrachloride is fluorinated at a temperature range of 250-450° C. (RX-123 at 11: 44-48), lists no temperature for the fluorination of trichloroethylene, and does not disclose that the fluorination of trichloroethylene must occur below the temperature for reaction (2) of claim 1 of the '276 patent. Also the GB '849 patent (U.S. 2,885,427) does not disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones (RX-122), does not disclose a reaction zone for the reaction of trichloroethylene and hydrogen fluoride and a separate reaction zone for the reaction of 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride (RX-122), does not disclose the reaction of trichloroethylene and hydrogen fluoride taking place at a temperature below that of the reaction of 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride (RX-122), and does not disclose the recycle of unconverted 1,1,1-trifluoro-2-chloroethane for further reaction with hydrogen fluoride. (RX-122; RDX-119.)

Based on the foregoing, the administrative law judge finds that respondents have not established that each of U.S. 2,005,710, GB 819,849 and U.S. 2,885,427 alone (item (11) of RReBr) render prima facie obvious claim 1 of the '276 patent, assuming arguendo said references were sufficiently raised by respondents.

Respondents, in their RReBr, argued that GB 1,589,924, or US 4,129,603 or US 4,158,675 or US 4,922,037 or GB 2,030,981 when combined with GB 819,849, US 2,885,427 or GB 1,307,224, render claim 1 of the '276 patent obvious (items (6), (7), (8), (9), (10) supra of RReBr). At the outset GB 1,307,224 is not listed in paragraph 2 of the Commission's remand Order and is thus outside the scope of the remand. In addition, the administrative law judge finds that each of the primary references, viz. GB '924 patent, the '603 patent, the '675 patent, the '037



patent, and the GB '981 patent, disclose nothing more than the fluorination of 1,1,1-trifluoro-2-chloroethane. (See, e.g., RDX- 119.) Thus he finds that none of those patents discuss the fluorination of trichloroethylene to yield 1,1,1-trifluoro-2-chloroethane, none of them discuss the temperature ranges for the fluorination of trichloroethylene, and none of them discuss a method for the manufacture of 1,1,1,2-tetrafluoroethane in two separate reaction zones. Moreover the secondary references do not disclose two separate reaction zones, do not disclose the relative temperature limitations, and in some cases (e.g., the '710 patent), do not disclose a temperature range for the fluorination of trichloroethylene.

Referring to respondents' assertion that the GB '924 patent, when combined with "any of US 2,005,710, GB 819,849, [or] US 2,885,427 ... renders claim 1 obvious," (item (6) of RReBr supra) the GB '924 patent is found merely to disclose the fluorination of 1,1,1-trifluoro-2-chloroethane in a single reaction zone at temperature in the range of 300-400°C. (RX-156 at p. 1, ll. 8-45.) Also given that both the GB '924 patent and the '710 patent were cited in the '276 patent, the administrative law judge finds that this combination of references was before the Examiner, see JX-4.00039, JX-5, MPEP 609,02, JX-6.00072 and thus respondents bear a higher burden of proof. See Takeda, 417 F.Supp.2d at 371. Moreover, he finds that the combination of these two references fails to disclose the fluorination of trichloroethylene at a temperature in the range of 200-400°C to yield 1,1,1-trifluoro-2-chloroethane. Thus the '710 patent, as found supra, discloses that carbon tetrachloride is fluorinated at a temperature range of 250-450°C. It lists no temperatures for the fluorinations of trichloroethylene. In addition, the combination of these two references fails to disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones.

Rather each one of these references merely discloses that hydrocarbons can be fluorinated in a single reaction zone. The administrative law judge finds nothing in said two references which suggests the use of multiple reaction zones for an integrated, two stage process for the manufacture of 1,1,1,2-tetrafluoroethane. He also finds the combination of these two references fails to disclose that the 1,1,1-trifluoro-2-chloroethane fluorinated in the second reaction zone is the 1,1,1-trifluoro-2-chloroethane produced from the fluorination of trichloroethylene in the first reaction zone. The combination of these two references also fails to disclose that trichloroethylene is fluorinated at a temperature in the range of 200-400°C but below that used to fluorinate 1,1,1-trifluoro-2-chloroethane. The administrative law judge finds nothing in either reference or in their combination which discloses the claimed relative temperature limitations of claim 1 of the '276 patent.

Referring to the GB '924 patent combined with the GB '849 patent/'427 patent (item (6) of RReBr supra) the Examiner considered this combination during prosecution. The GB '849 patent was disclosed to and considered by the Examiner in relation to the prosecution of the '722 patent (see JX-3, JX-4.00039) and the '276 patent is a continuation-in-part of the '722 patent, (see JX-4.00039, JX-5, MPEP 609.02.) Also as found supra the '924 patent was disclosed to and considered by the Examiner in relation to the prosecution of the '722 patent and the '276 patent is a continuation-in-part of the '722 patent. Thus the Examiner considered the '924 patent in relation to the prosecution of the '276 patent as found supra.

Regarding the combination of the '924 patent with the GB '849 patent/'427 patent the administrative law judge further finds that said combination fails to disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones. The administrative law

judge finds that each of those references merely discloses that hydrocarbons can be fluorinated in a single reaction zone. The administrative law judge finds nothing in these two references which suggests the use of multiple reaction zones for an integrated, two stage process for the manufacture of 1,1,1,2-tetrafluoroethane. In addition, he finds that the combination of these two references fails to disclose that the 1,1,1-trifluoro-2-chloroethane fluorinated in the second reaction zone is the 1,1,1-trifluoro-2-chloroethane produced from the fluorination of trichloroethylene in the first reaction zone. Also the combination of these two references fails to disclose that trichloroethylene is fluorinated at a temperature in the range of 200-400°C but below that used to fluorinate 1,1,1-trifluoro-2-chloroethane. The administrative law judge finds nothing in either reference or in their combination which discloses the claimed relative temperature limitations.

Referring to the '603 patent, viz. respondents' assertion that the '603 patent, when combined with "any of US 2,005,710, GB 819,849, [or] US 2,885,427.. renders claim 1 obvious," (item (7) supra of RReBr) the administrative law judge finds that the '603 patent merely discloses the fluorination of 1,1,1-trifluoro-2-chloroethane in a single reaction zone at temperature in the range of 300-400° C. (See RX-160 at 1: 10-15.) The administrative law judge finds that the Examiner considered the combination with the '710 patent during prosecution. Thus, as found supra, the '710 patent was cited in the '276 patent. The '603 patent also was disclosed to and considered by the Examiner in relation to the prosecution of the '722 patent. (JX-3, JX-4.00039.) Because the '276 patent is a continuation in- part of the '722 patent, the Examiner thus considered the '603 patent in relation to the prosecution of the '276 patent. (See JX-4.00039, JX-5, MPEP 609.02.) Moreover, the combination of the '603 patent and the

'710 patent fails to disclose the fluorination of trichloroethylene at a temperature in the range of 200-400°C to yield 1,1,1-trifluoro-2-chloroethane. As found supra the '710 patent discloses that carbon tetrachloride is fluorinated at a temperature range of 250-450°C and lists no temperature for the fluorination of trichloroethylene. The combination of the '603 and '710 patents further fails to disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones. Thus each one of those references merely discloses that hydrocarbons can be fluorinated in a single reaction zone. The administrative law judge finds nothing in these two references which suggests the use of multiple reaction zones for an integrated, two stage commercial process for the manufacture of 1,1,1,2-tetrafluoroethane. The administrative law judge finds that the combination of the '603 and '710 patents further fails to disclose that the 1,1,1-trifluoro-2-chloroethane is fluorinated in a second reaction zone and said 1,1,1-trifluoro-2-chloroethane produced from the fluorination of trichloroethylene in the first reaction zone and further fails to disclose that trichloroethylene is fluorinated at a temperature in the range of 200-400°C but below that used to fluorinate 1,1,1-trifluoro-2-chloroethane. He finds nothing in either reference or in their combination which discloses the claimed relative temperature limitations.

Referring to the combination of the '603 patent with the GB '849 patent/'427 patent (item (7) supra of RReBr), the Examiner considered this combination during prosecution. Thus, as found supra, the GB '849 patent was disclosed to and considered by the Examiner in relation to the prosecution of the '722 patent and because the '276 patent is a continuation-in-part of the '722 patent, the Examiner thus considered the GB '849 patent in relation to the prosecution of the '276 patent. Also, as found supra, the '603 patent was disclosed to and considered by the

Examiner in relation to the prosecution of the '722 patent and again, because the '276 patent is a continuation-in-part of the '722 patent, the Examiner thus considered the '603 patent in relation to the prosecution of the '276 patent. The administrative law judge further finds that the combination of the '603 patent with the GB '869 patent/'427 patent fails to disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones. He finds that each of those references merely discloses that hydrocarbons can be fluorinated in a single reaction zone and that nothing in these two references suggests the use of multiple reaction zones for an integrated, two stage process for the manufacture of 1,1,1,2-tetrafluoroethane. He further finds that said combination fails to disclose that the 1,1,1-trifluoro-2-chloroethane fluorinated in the second reaction zone is the 1,1,1-trifluoro-2-chloroethane produced from the fluorination of trichloroethylene in the first reaction zone; that the combination of these two reference fails to disclose that trichloroethylene is fluorinated at a temperature in the range of 200-400°C but below that used to fluorinate 1,1,1-trifluoro-2-chloroethane; and that nothing in either reference or in their combination discloses the claimed relative temperature limitations.

Respondents assert that the '675 patent, when combined with "any of US 2,005,710, GB 819,849, [or] US 2,885,427 ... renders claim 1 obvious" (item (8) supra of RReBr). The administrative law judge finds that the '675 patent merely discloses the fluorination of 1,1,1-trifluoro-2-chloroethane in a single reaction zone at temperature in the range of 300-400°C. (See RX-161 at 1:10-18.) Moreover, given that both the '675 patent and as found supra the '710 patent were cited in the '276 patent, this combination of references was thus before the Examiner, see JX-5; JX-6.00072, who deserves a high level of deference. See Takeda, 417 F.Supp 2d at 371. The administrative law judge finds that the combination of the two references

in issue also fails to disclose the fluorination of trichloroethylene at a temperature in the range of 200-400° C to yield 1,1,1-trifluoro-2-chloroethane. Rather, as found supra, the '710 patent discloses that carbon tetrachloride is fluorinated at a temperature range of 250-450°C. The administrative law judge finds that the combination of the '675 patent and the '710 patent also fails to disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones. To the contrary the administrative law judge finds that each one of these references merely discloses that hydrocarbons can be fluorinated in a single reaction zone and nothing in these two references suggests the use of multiple reaction zones for an integrated, two stage process for the manufacture of 1,1,1,2-tetrafluoroethane. He further finds that the combination of said two references also fails to disclose that the 1,1,1-trifluoro-2-chloroethane fluorinated in the second reaction zone is the 1,1,1-trifluoro-2-chloroethane produced from the fluorination of trichloroethylene in the first reaction zone. In addition, he finds that the combination of these two references fails to disclose that trichloroethylene is fluorinated at a temperature in the range of 200-400°C but below that used to fluorinate 1,1,1-trifluoro-2-chloroethane. The administrative law judge further finds nothing in either reference or in their combination which discloses the claimed relative temperature limitations.

Referring to the '675 patent combined with the GB '849 patent/'427 patent, (item (8) supra of RReBr) the Examiner considered this combination during prosecution. The '675 patent was cited in the '276 patent as found supra. Also as found supra the GB '849 patent was disclosed to and considered by the Examiner in relation to the prosecution of the '722 patent and, because the '276 patent is a continuation-in-part of the '722 patent, the Examiner thus considered the GB '849 patent in relation to the prosecution of the '276 patent. The



administrative law judge finds that the combination of said two references in issue further fails to disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones; that each one of these references merely discloses that hydrocarbons can be fluorinated in a single reaction zone; that nothing in these two references suggests the use of multiple reaction zones for an integrated, two stage commercial process for the manufacture of 1,1,1,2-tetrafluoroethane; that the combination of said two references also fails to disclose that the 1,1,1-trifluoro-2-chloroethane fluorinated in the second reaction zone is the 1,1,1-trifluoro-2-chloroethane produced from the fluorination of trichloroethylene in the first reaction zone; and that the combination of said two references further fails to disclose that trichloroethylene is fluorinated at a temperature in the of 200-400°C but below that used to fluorinate 1,1,1-trifluoro-2-chloroethane. The administrative law judge further finds that nothing in either reference or in their combination discloses the claimed relative temperature limitations.

Respondents assert that the '037 patent, when combined with "any of US 2,005,710, GB 819,849, [or] US 2,885,427... renders claim 1 obvious." (item (9) supra of RReBr). The administrative law judge finds that the '037 patent however merely discloses the fluorination of 1,1,1-trifluoro-2-chloroethane in a single reaction zone at temperature in the range of 300-500°C. (See RX-120 at 2, 52-53.) Moreover, as for the combination of the '037 patent with the '710 patent, given that both the '037 patent and the '710 patent were cited in the '276 patent, this combination of references was before the Examiner. (See JX-5; JX-6.00072.) The administrative law judge finds that said combination of these two references further fails to disclose the fluorination of trichloroethylene at a temperature in the range of 200-400°C to yield 1,1,1-trifluoro-2-chloroethane. As found supra, the '710 patent discloses that carbon



tetrachloride is fluorinated at a temperature range of 250-450° C and lists no temperature for the fluorination of trichloroethylene. The administrative law judge finds that the combination of said two references also fails to disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones and that each of these references discloses that hydrocarbons can be fluorinated in a single reaction zone. The administrative law judge finds nothing in these two references which suggests the use of multiple reaction zones for an integrated, two stage process for the manufacture of 1,1,1,2-tetrafluoroethane. He further finds that the combination of said two references fails to disclose that the 1,1,1-trifluoro-2-chloroethane fluorinated in the second reaction zone is 1,1,1-trifluoro-2-chloroethane produced from the fluorination of trichloroethylene in the first reaction zone; that the combination of said two references further fails to disclose that trichloroethylene is fluorinated at a temperature in the range of 200-400°C but below that used to fluorinate 1,1,1-trifluoro-2-chloroethane; and that nothing in either reference or in their combination discloses the claimed relative temperature limitation.

Referring to the '037 patent combined with the GB '849 patent/'427 patent (item (9) supra of RReBr), the administrative law judge finds that the Examiner considered this combination during prosecution. The '037 patent was cited in the '276 patent. (See JX-5; JX-6.00072.) As found supra, the GB '849 patent was also disclosed to and considered by Examiner in relation to the prosecution of the '722 patent and, because the '276 patent also is a continuation-in-part of the '722 patent, the Examiner thus considered the GB '849 patent in relation to the prosecution of the '276 patent. The combination of said two references further fails to disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones. Thus the administrative law judge finds that each one of these references merely discloses

that hydrocarbons can be fluorinated in a single reaction zone. He finds nothing in these two references that suggests the use of multiple reaction zones for an integrated, two stage process for the manufacture of 1,1,1,2-tetrafluoroethane. He also finds that the combination of said two references fails to disclose that the 1,1,1-trifluoro-2-chloroethane fluorinated in the second reaction zone is 1,1,1-trifluoro-2-chloroethane produced from the fluorination of trichloroethylene in the first reaction zone; that the combination of these two references fails to disclose that trichloroethylene is fluorinated at a temperature in the 200-400° C but below that used to fluorinate 1,1,1-trifluoro-2-chloroethane; and that nothing in either reference or in their combination discloses the claimed relative temperature limitations.

Respondents assert that the GB '981 patent, when combined with "any of US 2,005,7 10, GB 819,849, [or] US 2,885,427 ... renders claim 1 obvious." (Item (10) of RReBr at 94-95.) The GB '981 patent however merely discloses the fluorination of 1,1,1-trifluoro-2-chloroethane in a single reaction zone at temperature in the range of 300-450°C. (See RX-157 at p. 1, line 57.)

Referring to the combination of GB '981 patent with the '710 patent (item (10) of RReBr supra), the administrative law judge finds that said combination of these two references fails to disclose the fluorination of trichloroethylene at a temperature in the range of 200-400° C to yield 1,1,1-trifluoro-2-chloroethane. Thus as found supra, the '710 patent discloses that carbon tetrachloride is fluorinated at a temperature range of 250-450°C and lists no temperature for the fluorination of trichloroethylene. The combination of said two references further fails to disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones. Moreover, the administrative law judge finds that each one of these references merely discloses that hydrocarbons can be fluorinated in a single reaction zone. He finds nothing in these two

references that suggests the use of multiple reaction zones for an integrated, two stage process for the manufacture of 1,1,1,2-tetrafluoroethane. The combination of these two references also fails to disclose that the 1,1,1-trifluoro-2-chloroethane fluorinated in the second reaction zone is the 1,1,1-trifluoro-2-chloroethane produced from the fluorination of trichloroethylene in the first reaction zone. The combination of these two references further fails to disclose that trichloroethylene is fluorinated at a temperature in the range of 200-400° C but below that used to fluorinate 1,1,1-trifluoro-2-chloroethane. The administrative law judge finds that nothing in either reference or in their combination discloses the claimed relative temperature limitations.

Referring to the GB '981 patent combined with the GB '849 patent/'427 patent (item (11) supra of RReBr) the administrative law judge finds that said combination fails to disclose a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones. Each one of these references merely discloses that hydrocarbons can be fluorinated in a single reaction zone. The administrative law judge finds that nothing in these two references suggests the use of multiple reaction zones for an integrated, two stage commercial process for the manufacture of 1,1,1,2-tetrafluoroethane. The combination of these two references also fails to disclose that the 1,1,1-trifluoro-2-chloroethane fluorinated in the second reaction zone is the 1,1,1-trifluoro-2-chloroethane produced from the fluorination of trichloroethylene in the first reaction zone. The combination of these two references further fails to disclose that trichloroethylene is fluorinated at a temperature in the of 200-400° C range but below that used to fluorinate 1,1,1-trifluoro-2-chloroethane. The administrative law judge finds that nothing in either reference or in their combination which discloses the claimed relative temperature limitations or the presence of a recycle stream.

Based on the foregoing, the administrative law judge finds that respondents have not established that claim 1 of the '276 patent is prima facie obvious, assuming arguendo that said obviousness arguments in the RReBr were sufficiently raised by respondents.

V. CONCLUSIONS OF LAW

1. Respondents did not sufficiently raise the anticipation and obviousness arguments found in respondents' remand initial brief (RReBr) in their pre-hearing statement.
2. Assuming arguendo that respondents sufficiently raised the anticipation and obviousness arguments found in RReBr, said arguments have no merit.
3. As found in the Final Initial and Recommended Determinations which issued on December 1, 2008 (ID), respondents have not established that claim 1 of the '276 patent is invalid based on any ground.
4. As found in the ID, respondents have violated 19 U.S.C. § 1337 with regard to claim 1 of the '276 patent.
5. As recommended in the ID, if a violation is found the record supports issuance of a limited exclusion order barring entry into the United States of products made by the infringing process, and further supports the setting of a bond in the amount of 100 percent of entered value of any products made from the infringing process during the Presidential review period.

## ORDER

Based on the foregoing, and the record as a whole including what was found in the ID, it is the administrative law judge's Remand Determination that there is a violation of section 337 in the importation into the United States, sale for importation, and sale within the United States after importation of products made by the accused process. It is also the administrative law judge's recommendation, as found in the ID, that should a violation be found a limited exclusion order should issue barring entry into the United States of products made from the infringing process, and that a bond should be set in the amount of 100 percent of entered value of any products made from the infringing process during the Presidential review period.

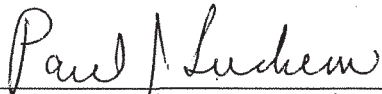
The administrative law judge hereby CERTIFIES to the Commission his Remand Determination. The briefs of the parties filed with the Secretary, are not certified, since they are already in the Commission's possession in accordance with Commission rules.

Further it is ORDERED that:

1. In accordance with Commission rule 210.39, all material heretofore marked in camera because of business, financial and marketing data found by the administrative law judge to be cognizable as confidential business information under Commission rule 201.6(a), is to be given in camera treatment continuing after the date this investigation is terminated.
2. Counsel for the parties shall have in the hands of the administrative law judge those portions of the final initial and recommended determinations which contain bracketed confidential business information to be deleted from any public version of said determinations, no later than April 10, 2009. Any such bracketed version shall not be served via facsimile on the administrative law judge. If no such bracketed version is received from a party, it will mean that

the party has no objection to removing the confidential status, in its entirety, from these initial and recommended determinations.

3. Pursuant to the Commission Order of January 30, 2009, the parties are invited to file written submissions on the remand determination within fourteen days after service of the determination and to file responses to the written submissions within seven days after service of the written submissions. Pursuant to said Order the parties should also address remedy, the public interest, and bonding in accordance with the Commission's notice of review issued with said Order.

  
\_\_\_\_\_  
Paul J. Luckern  
Chief Administrative Law Judge

Issued: April 1, 2009

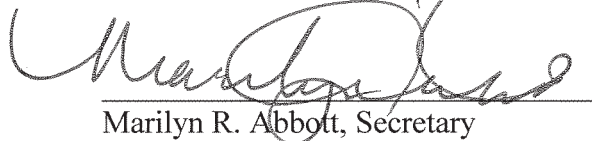


**CERTAIN R-134a COOLANT (OTHERWISE KNOWN AS 1,1,1,2-TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623  
Remand**

CERTIFICATE OF SERVICE

I, Marilyn R. Abbott, hereby certify that the attached **Public Version Remand Determination** was served upon Heidi E. Strain, Esq., Commission Investigative Attorney, and the following parties via first class mail and air mail where necessary on May 3, 2010



Marilyn R. Abbott, Secretary  
U.S. International Trade Commission  
500 E Street, SW  
Washington, DC 20436

**COUNSEL FOR COMPLAINANT INEOS FLUOR HOLDINGS LIMITED, INEOS FLUOR LIMITED AND INEOS FLUOR AMERICAS LLC:**

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**FOR RESPONDENTS SINOCEM MODERN ENVIRONMENTAL PROTECTION CHEMICALS (XI'AN) CO., LTD. OF CHINA AND SINO CHEM NINGBO LTD. OF CHINA:**

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**CERTAIN R-134a COOLANT (OTHERWISE KNOWN  
AS 1,1,1,2-TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623  
Remand**

**RESPONDENTS:**

Sinochem Environmental Protection Chemicals (Taicang)  
Co., Ltd.  
South Binjiang Road  
Petrochemical Industrial Section  
Taicang Port Development Zone  
Taicang, Jiangsu 215433, China

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Sinochem (U.S.A.) Inc.  
1330 Post Oak Boulevard, Suite 2500  
Houston, TX 77056

- Via Hand Delivery  
 Via Overnight Mail  
 Via First Class Mail  
 Other: \_\_\_\_\_

**CERTAIN R-134a COOLANT (OTHERWISE KNOWN  
AS 1,1,1,2-TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623  
Remand**

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**UNITED STATES INTERNATIONAL TRADE COMMISSION**  
**Washington, D.C. 20436**

**In the Matter of**

**CERTAIN R-134a COOLANT  
(OTHERWISE KNOWN AS 1,1,1,2-  
TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623  
Enforcement Proceeding**

**NOTICE OF INSTITUTION OF A FORMAL ENFORCEMENT PROCEEDING TO  
ENFORCE A CONSENT ORDER**

**AGENCY:** U.S. International Trade Commission.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that the U.S. International Trade Commission has instituted a formal enforcement proceeding relating to the September 11, 2008, consent order issued in the above-captioned investigation.

**FOR FURTHER INFORMATION CONTACT:** Wayne Herrington, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-3090. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server at <http://www.usitc.gov>. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at <http://edis.usitc.gov>. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

**SUPPLEMENTARY INFORMATION:** The Commission instituted this investigation on December 31, 2007, based on a complaint filed by INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor Americas L.L.C. ("INEOS"). The complaint alleged violations of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337) in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain R-134a coolant (otherwise known as 1,1,1,2-tetrafluoroethane) by reason of infringement of various claims of United States Patent No. 5,744,658. Complainants subsequently added allegations of infringement with regard to United States Patent Nos. 5,382,722 and 5,559,276. The complaint named two respondents, Sinochem Modern Environmental Protection Chemicals (Xi'an) Co., Ltd. and Sinochem Ningbo Ltd. Two additional respondents were subsequently added: Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd. and Sinochem (U.S.A.) Inc.



On August 18, 2008, respondents moved for partial termination of the investigation based on the entry of a consent order specific to respondents' "old" process. On August 20, 2008, the administrative law judge issued an ID granting the motion and terminating the investigation with respect to the "old" process. On September 11, 2008, the Commission issued notice of its decision not to review the ID and issued the subject consent order.

On December 12, 2008, INEOS filed a complaint, requesting that the Commission institute a formal enforcement proceeding under Commission Rule 210.75 to investigate an alleged violation of the consent order relating to the "old" process. The complaint named a single respondent, Sinochem Environmental Protection Chemicals (Taicang) Co. Ltd. ("Sinochem (Taicang)").

The Commission has determined to institute a formal enforcement proceeding to determine whether Sinochem (Taicang) is in violation of the Commission's consent order in the above-captioned investigation, and what, if any, enforcement measures are appropriate.

The following entities were named as parties to the formal enforcement proceeding: (1) complainants INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor Americas L.L.C., (2) respondent Sinochem Environmental Protection Chemicals (Taicang) Co. Ltd., and (3) a Commission investigative attorney to be designated by the Director, Office of Unfair Import Investigations.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in section 210.75 of the Commission's Rules of Practice and Procedure (19 C.F.R. § 210.75).

By order of the Commission.



Marilyn R. Abbott  
Secretary to the Commission

Issued: February 18, 2009

**UNITED STATES INTERNATIONAL TRADE COMMISSION**  
**Washington, D.C. 20436**

**In the Matter of**

**CERTAIN R-134a COOLANT  
(OTHERWISE KNOWN AS 1,1,1,2-  
TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623  
Enforcement Proceeding**

**ORDER**

The Commission instituted this investigation on December 31, 2007, based on a complaint filed by INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor Americas L.L.C. (“INEOS”). The complaint alleged violations of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337) in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain R-134a coolant (otherwise known as 1,1,1,2-tetrafluoroethane) by reason of infringement of various claims of United States Patent No. 5,744,658. Complainants subsequently added allegations of infringement with regard to United States Patent Nos. 5,382,722 and 5,559,276. The complaint named two respondents, Sinochem Modern Environmental Protection Chemicals (Xi’an) Co., Ltd. and Sinochem Ningbo Ltd. Two additional respondents were subsequently added: Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd. and Sinochem (U.S.A.) Inc.

On August 18, 2008, respondents moved for partial termination of the investigation based on the entry of a consent order specific to respondents’ “old” process. On August 20, 2008, the administrative law judge (“ALJ”) issued an initial determination (“ID”) granting the motion and terminating the investigation with respect to the “old” process. On September 11, 2008, the Commission issued notice of its decision not to review the ID and issued the subject consent order.



On December 12, 2008, INEOS filed a complaint, requesting that the Commission institute a formal enforcement proceeding under Commission Rule 210.75 to investigate an alleged violation of the consent order relating to the “old” process. The complaint named a single respondent, Sinochem Environmental Protection Chemicals (Taicang) Co. Ltd. (“Sinochem (Taicang)”).

Having examined INEOS’s complaint seeking a formal enforcement proceeding and having found that the complaint complies with the requirements for institution of formal enforcement proceedings in accordance with Commission Rule 210.75, the Commission has determined to institute a formal enforcement proceeding to determine whether Sinochem (Taicang) is in violation of the Commission’s consent order in the above-captioned investigation, and what, if any, enforcement measures are appropriate.

Accordingly, the Commission hereby **ORDERS** that:

1. Pursuant to Commission Rule 210.75(b), 19 C.F.R. § 210.75(b), a formal enforcement proceeding is instituted to determine whether Sinochem Environmental Protection Chemicals (Taicang) Co. Ltd. is in violation of the Commission’s consent order issued in the above-captioned investigation, and what if any enforcement measures are appropriate.
2. For purposes of the enforcement proceeding so instituted, the following are parties to the proceeding:

Complainants:

INEOS Fluor Holdings Ltd.  
The Heath  
Runcorn, Cheshire, WA74QX  
United Kingdom

INEOS Fluor Ltd.  
The Heath  
Runcorn, Cheshire, WA74QX  
United Kingdom

INEOS Fluor Americas L.L.C.  
4990 B IC1 Road  
St. Gabriel, LA 70776

Respondent:

Sinochem Environmental Protection Chemicals (Taicang) Co. Ltd.

South Binjiang Road  
Petrochemical Industrial Section  
Taicang Port Development Zone  
Taicang, Jiangsu 215433, China

A Commission investigative attorney to be designated by the Director,  
Office of Unfair Import Investigations.

3. The formal enforcement proceeding is hereby certified to the chief ALJ, Chief Judge Paul J. Luckern, who shall designate a presiding ALJ for this proceeding for issuance of an enforcement initial determination ("EID"). The presiding ALJ is directed to set a target date for completion of these proceedings within forty-five (45) days of institution in accordance with 19 C.F.R. § 210.51(a).
4. The presiding ALJ, in his discretion, may conduct any proceedings he deems necessary, including issuing a protective order, holding hearings, taking evidence, and ordering discovery consistent with Commission rules to issue his EID. The EID will rule on the question of whether Sinochem (Taicang) has violated the September 11, 2008 consent order issued in the above-captioned investigation. All defenses not barred by claim preclusion may be raised in this proceeding. The presiding ALJ shall also recommend to the Commission what enforcement measures are appropriate if Sinochem (Taicang) is found to violate the Commission's consent order. The presiding ALJ, in his discretion, may also conduct any proceedings he deems necessary, including taking evidence and ordering discovery, to issue his recommendations on appropriate enforcement measures.
5. Petitions for review of the EID may be filed within fourteen (14) days of service of the EID. Responses to any petitions for review may be filed within seven (7) days of service of any petitions for review.
6. Notwithstanding Commission Rule 210.75(b)(3), the EID shall become the Commission's final determination sixty (60) days after service of the EID, unless the Commission orders review or changes the deadline for determining whether to review it.

7. The Secretary shall:

- (a) docket INEOS's complaint for a formal enforcement proceeding;
- (b) serve a copy of INEOS's "Complaint to Enforce Consent Order Pursuant to Commission Rule 210.75" on the proposed respondent and advise Sinochem (Taicang) of the provisions of Commission Rule 210.75 concerning responses to a request for a formal enforcement proceeding;
- (c) serve a copy of this order upon each party to the formal enforcement proceeding;
- (d) publish notice of this order in the *Federal Register*.

By Order of the Commission.



Marilyn R. Abbott  
Secretary to the Commission

Issued: February 18, 2009





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UNITED STATES INTERNATIONAL TRADE COMMISSION

---

WASHINGTON, DC 20436

February 18, 2009

Sinochem Environmental Protection Chemicals (Taicang) Co. Ltd.  
South Binjiang Road  
Petrochemical Industrial Section  
Taicang Port Development Zone  
Taicang, Jiangsu 215433, China

Re CERTAIN R-134a COOLANT (OTHERWISE KNOWN AS 1,1,1,2-  
TETRAFLUOROETHANE), Inv. 337-TA-623 Enforcement Proceeding

Dear Sir/Madam:

The Commission has instituted a formal enforcement proceeding based on an enforcement complaint filed by INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor Americas L.L.C. ("INEOS"). Sinochem Environmental Protection Chemicals (Taicang) Co. Ltd. ("Sinochem (Taicang)") was named as the sole respondent to the formal enforcement proceeding. A Commission investigative attorney to be designated by the Director, Office of Unfair Import Investigations, is also a party to the proceeding. Enclosed is a copy of the Commission's order and the complaint. The formal enforcement proceeding concerns the Commission's consent order issued on September 11, 2008, in the above-referenced investigation. The proceeding is instituted to determine whether Sinochem (Taicang) violated the Commission's consent order in the above-captioned investigation, and what, if any, enforcement measures are appropriate.

Sinochem (Taicang) is advised that pursuant to Commission Rule 210.75, 19 C.F.R. § 210.75, it has fifteen (15) days after the date of service of the enforcement complaint to file a response. Any such response should fully advise the Commission as to the nature of any defense and shall admit or deny each allegation of the complaint specifically and in detail unless you are without knowledge, in which case your answer should so state and the statement shall operate as denial. Allegations of fact not denied or controverted may be deemed admitted. Matters alleged as affirmative defenses shall be separately stated and numbered.

February 18, 2009

Page Two

Failure to file and serve on all parties to the formal enforcement proceeding a response to the complaint within the time specified and in the manner prescribed herein shall authorize the Commission, in its discretion, to find the facts alleged in the complaint to be true and to take such action as may be appropriate without notice or hearing, or, in its discretion, to proceed without notice to take evidence on the allegations or charges set forth in the complaint. The presiding administrative law judge may permit late filing of a response for good cause shown.

Sincerely,

A handwritten signature in black ink, appearing to read "Marilyn R. Abbott", written in a cursive style.

Marilyn R. Abbott  
Secretary to the Commission

cc: Counsel for Respondent

**CERTIFICATE OF SERVICE**

I, Marilyn R. Abbott, hereby certify that the attached **NOTICE OF INSTITUTION OF A FORMAL ENFORCEMENT PROCEEDING TO ENFORCE A CONSENT ORDER**, issued on February 18, 2009, has been served by hand upon the Commission Investigative Attorney, Thomas S. Fusco, Esq., and the following parties as indicated, on February 23, 2009.



Marilyn R. Abbott, Secretary  
U.S. International Trade Commission  
500 E Street, SW  
Washington, DC 20436

**ON BEHALF OF COMPLAINANTS INEOS FLUOR HOLDINGS Ltd., INEOS FLUOR Ltd., and INEOS FLUOR AMERICAS LLC:**

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**ON BEHALF OF RESPONDENTS SINOCHEM MODERN ENVIRONMENTAL PROTECTION CHEMICALS (XI'AN) Co., Ltd.; SINOCHEM NINGBO Ltd.; SINOCHEM ENVIRONMENTAL PROTECTION CHEMICALS (TAICANG) Co., Ltd., and SINOCHEM (U.S.A.) Inc.:**

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**UNITED STATES INTERNATIONAL TRADE COMMISSION**  
**Washington, D.C. 20436**

**In the Matter of**

**CERTAIN R-134a COOLANT  
(OTHERWISE KNOWN AS 1,1,1,2-  
TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623**

**NOTICE OF COMMISSION DETERMINATION TO REVIEW THE FINAL INITIAL  
DETERMINATION IN PART AND TO REMAND THE INVESTIGATION; SCHEDULE  
FOR WRITTEN SUBMISSIONS ON REMAND DETERMINATION AND ON REMEDY,  
THE PUBLIC INTEREST, AND BONDING**

**AGENCY:** U.S. International Trade Commission.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that the U.S. International Trade Commission has determined to review a portion of the final initial determination (“ID”) issued by the presiding administrative law judge (“ALJ”) on December 1, 2008, in the above-captioned investigation and to remand the investigation to the ALJ.

**FOR FURTHER INFORMATION CONTACT:** Michelle Walters, Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 708-5468. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server at <http://www.usitc.gov>. The public record for this investigation may be viewed on the Commission’s electronic docket (EDIS) at <http://edis.usitc.gov>. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission’s TDD terminal on (202) 205-1810.

**SUPPLEMENTARY INFORMATION:** The Commission instituted this investigation on December 31, 2007, based on a complaint filed by INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor Americas L.L.C. The complaint alleged violations of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337) in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain R-134a coolant (otherwise known as 1,1,1,2-tetrafluoroethane) by reason of infringement of various claims of United States Patent No. 5,744,658. Complainants subsequently added allegations of infringement with regard to United States Patent Nos. 5,382,722 and 5,559,276 (“the ‘276 patent”), but only claim 1 of the ‘276 patent remains at issue in this investigation. The complaint

named two respondents, Sinochem Modern Environmental Protection Chemicals (Xi'an) Co., Ltd. and Sinochem Ningbo Ltd. Two additional respondents were subsequently added: Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd. and Sinochem (U.S.A.) Inc. All four respondents are collectively referred to as "Sinochem."

On December 1, 2008, the ALJ issued his final ID, finding that Sinochem violated section 337. He concluded that respondents' "new" process infringed claim 1 of the '276 patent and that the domestic industry requirement had been met. He also found that claim 1 was not invalid and that it was not unenforceable. The ALJ recommended that the Commission issue a limited exclusion order prohibiting the importation into the United States of products made by the infringing process, but did not recommend issuing a cease and desist order. The ALJ also recommended that the bond to permit importation during the Presidential review period be set at 100% of the entered value of the products concerned.

On December 15, 2008, Sinochem filed a petition for review, challenging the findings of the ALJ's final ID. On December 23, 2008, complainants and the Commission investigative attorney ("IA") each filed a response to respondents' petition for review of the final ID. On January 5, 2009, respondents filed a motion for leave to file a reply in support of their petition for review of the final ID. On January 9, 2009, complainants filed an opposition to respondents' motion. On January 15, 2009, the IA also filed an opposition to respondents' motion.

Having examined the record of this investigation, including the ALJ's ID and the submissions of the parties, the Commission has determined to review the ALJ's determination regarding the effective filing date of claim 1 of the '276 patent and to affirm his determination with additional reasoning. In addition, the Commission has determined to review the ALJ's ID with regard to whether claim 1 of the '276 patent is invalid for anticipation or obviousness with respect to certain references and to issue an order remanding the investigation to the ALJ for further proceedings related to anticipation and obviousness with respect to those references. The Commission has determined not to review any other determination in the ALJ's ID.

To accommodate the remand proceedings, the Commission has extended the target date of the above-captioned investigation to June 1, 2009, and instructed the ALJ to make his determination on remand by April 1, 2009. The parties are invited to file written submissions on the ALJ's remand determination within fourteen days after service of the ALJ's determination and to file responses to the written submissions within seven days after service of the written submissions. The parties should also address remedy, the public interest, and bonding in their submissions. Finally, the Commission has determined to deny respondents' motion for leave to file a reply in support of their petition for review of the final ID.

In connection with the final disposition of this investigation, the Commission may (1) issue an order that could result in the exclusion of the subject articles from entry into the United States, and/or (2) issue one or more cease and desist orders that could result in the respondent being required to cease and desist from engaging in unfair acts in the importation and sale of such articles. Accordingly, the Commission is interested in receiving written submissions that



address the form of remedy, if any, that should be ordered. If a party seeks exclusion of an article from entry into the United States for purposes other than entry for consumption, the party should so indicate and provide information establishing that activities involving other types of entry either are adversely affecting it or likely to do so. For background, see *In the Matter of Certain Devices for Connecting Computers via Telephone Lines*, Inv. No. 337-TA-360, USITC Pub. No. 2843 (December 1994) (Commission Opinion).

If the Commission contemplates some form of remedy, it must consider the effects of that remedy upon the public interest. The factors the Commission will consider include the effect that an exclusion order and/or cease and desist orders would have on (1) the public health and welfare, (2) competitive conditions in the U.S. economy, (3) U.S. production of articles that are like or directly competitive with those that are subject to investigation, and (4) U.S. consumers. The Commission is therefore interested in receiving written submissions that address the aforementioned public interest factors in the context of this investigation.

If the Commission orders some form of remedy, the U.S. Trade Representative, as delegated by the President, has 60 days to approve or disapprove the Commission's action. See Presidential Memorandum of July 21, 2005, 70 *Fed. Reg.* 43251 (July 26, 2005). During this period, the subject articles would be entitled to enter the United States under bond, in an amount determined by the Commission and prescribed by the Secretary of the Treasury. The Commission is therefore interested in receiving submissions concerning the amount of the bond that should be imposed if a remedy is ordered.

**WRITTEN SUBMISSIONS:** The parties to the investigation are requested to file written submissions on the issues identified in this notice. Parties to the investigation, interested government agencies, and any other interested parties are encouraged to file written submissions on the issues of remedy, the public interest, and bonding. Such submissions should address the recommended determination by the ALJ on remedy and bonding. Complainants and the Commission investigative attorney are also requested to submit proposed remedial orders for the Commission's consideration. Complainants are also requested to state the dates that the patents expire and the HTSUS numbers under which the accused products are imported. The written submissions and proposed remedial orders must be filed no later than the close of business fourteen days after service of the ALJ's remand determination. Reply submissions must be filed no later than the close of business seven days after service of the written submissions. The written submissions may be no longer than 50 pages and the reply submissions may be no longer than 25 pages. No further submissions on these issues will be permitted unless otherwise ordered by the Commission.

Persons filing written submissions must file the original document and 12 true copies thereof on or before the deadlines stated above with the Office of the Secretary. Any person desiring to submit a document to the Commission in confidence must request confidential treatment unless the information has already been granted such treatment during the proceedings. All such requests should be directed to the Secretary of the Commission and must include a full

statement of the reasons why the Commission should grant such treatment. *See* 19 C.F.R. § 210.6. Documents for which confidential treatment by the Commission is sought will be treated accordingly. All nonconfidential written submissions will be available for public inspection at the Office of the Secretary.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in sections 210.42-46 of the Commission's Rules of Practice and Procedure (19 C.F.R. §§ 210.42-46).

By order of the Commission.

A handwritten signature in black ink, appearing to read "Marilyn R. Abbott". The signature is fluid and cursive, with a large initial "M" and a long, sweeping underline.

Marilyn R. Abbott  
Secretary to the Commission

Issued: January 30, 2009

**UNITED STATES INTERNATIONAL TRADE COMMISSION**  
**Washington, D.C. 20436**

**In the Matter of**

**CERTAIN R-134a COOLANT  
(OTHERWISE KNOWN AS 1,1,1,2-  
TETRAFLUOROETHANE)**

**Inv. No. 337-TA-623**

**ORDER**

The Commission instituted this investigation on December 31, 2007, based on a complaint filed by INEOS Fluor Holdings Ltd., INEOS Fluor Ltd., and INEOS Fluor Americas L.L.C. The complaint alleged violations of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337) in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain R-134a coolant (otherwise known as 1,1,1,2-tetrafluoroethane) by reason of infringement of various claims of United States Patent No. 5,744,658. Complainants subsequently added allegations of infringement with regard to United States Patent Nos. 5,382,722 and 5,559,276 (“the ‘276 patent”), but only claim 1 of the ‘276 patent remains at issue in this investigation. The complaint named two respondents, Sinochem Modern Environmental Protection Chemicals (Xi’an) Co., Ltd. and Sinochem Ningbo Ltd. Two additional respondents were subsequently added: Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd. and Sinochem (U.S.A.) Inc. All four respondents are collectively referred to as “Sinochem.”

On December 1, 2008, the administrative law judge (“ALJ”) issued his final initial determination (“ID”), finding that Sinochem violated section 337. He concluded that respondents’ new process infringed claim 1 of the ‘276 patent and that the domestic industry requirement had been met. He also found that claim 1 was not invalid and that it was not



unenforceable. The ALJ recommended that the Commission issue a limited exclusion order prohibiting the importation into the United States of products made by the infringing process, but did not recommend issuing a cease and desist order. The ALJ also recommended that the bond to permit importation during the Presidential review period be set at 100% of the entered value of the products concerned.

On December 15, 2008, Sinochem filed a petition for review, challenging the findings of the ALJ's final ID. On December 23, 2008, complainants and the Commission investigative attorney ("IA") each filed a response to respondents' petition for review of the final ID. On January 5, 2009, respondents filed a motion for leave to file a reply in support of their petition for review of the final ID. On January 9, 2009, complainants filed an opposition to respondents' motion. On January 15, 2009, the IA also filed an opposition to respondents' motion.

Having examined the record of this investigation, including the ALJ's ID and the submissions of the parties, the Commission has determined to review the ALJ's determination regarding the effective filing date of claim 1 of the '276 patent and to affirm his determination with additional reasoning. Specifically, the Commission notes that the earlier-filed parent applications' use of the term "about" suggests that their disclosure is broader than simply 280-450°C, as does the relative temperature information disclosed in U.S. Patent No. 5,395,996. In addition, because the disposition of the issues of anticipation and obviousness as to certain references (noted below) is unclear from the ALJ's ID, the Commission has determined to review whether claim 1 of the '276 patent is invalid for anticipation or obviousness with respect to those

references and to remand the investigation to the ALJ for further proceedings. The Commission has determined not to review any other determination in the ALJ's ID.<sup>1</sup>

Accordingly, the Commission hereby **ORDERS** that:

1. The question of violation of section 337 with respect to claim 1 of the '276 patent is remanded to the ALJ for a remand determination addressing issues related to anticipation and obviousness with respect to certain references set forth in paragraph 2 below.
2. The ALJ shall consider whether respondents' anticipation and obviousness arguments related to European Patent Application Nos. 0 449 614 and 0 449 617; the 1982 Marangoni reference (RX-169); U.S. Patent Nos. 2,005,710, 2,885,427, 4,129,603, 4,158,675, and 4,922,037; and GB Patent Nos. 819,849, 1,589,924, and 2,030,981 were sufficiently raised and if so whether they have merit.
3. The ALJ should not consider arguments directed to the seven references he found are not prior art (U.S. Patent No. 5,334,786; European Patent Application 0 446 869; EP 0 408 005 A1; U.S. Patent No. 5,157,172; U.S. Patent No. 5,185,482; WO 90/108755; and EP 0 366 797 A1). Anticipation and obviousness allegations based on these references in whole or in part may not be considered on remand, because the Commission has adopted the ALJ's determination that these references are not prior art.
4. On remand, the ALJ may in his discretion require that the parties submit detailed briefing directed to each reference or combination relied upon. No further evidence or testimony may be admitted into the record, unless ordered by the ALJ. The non-reviewed portions of the ALJ's December 1, 2008, ID and this Order will apply as law of the case.
5. The ALJ shall make his remand determination of whether there is a violation of section 337 with regard to claim 1 of the '276 patent by April 1, 2009.
6. The parties are invited to file written submissions on the ALJ's remand determination within fourteen days after service of the ALJ's determination and to file responses to the written submissions within seven days after service of the written submissions. The parties should also address remedy, the public interest, and bonding in accordance with the Commission's notice of review issued concurrently with this Order.

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<sup>1</sup> The Commission notes, however, that it understands the ALJ's claim construction simply to mean that claim 1 covers the forward and reverse processes.



7. The target date for termination of the investigation is hereby extended to June 1, 2009.
8. Respondents' motion for leave to file a reply in support of their petition for review of the initial determination is denied.
9. The Secretary to the Commission shall serve copies of this Order upon each party of record in this investigation.
10. Notice of this Order shall be published in the *Federal Register*.

By Order of the Commission.

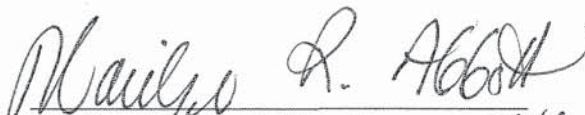
A handwritten signature in black ink, appearing to read "Marilyn R. Abbott". The signature is fluid and cursive, with a large initial "M" and a long, sweeping underline.

Marilyn R. Abbott  
Secretary to the Commission

Issued: January 30, 2009

**PUBLIC CERTIFICATE OF SERVICE**

I, Marilyn R. Abbott, hereby certify that the attached **NOTICE OF COMMISSION DETERMINATION TO REVIEW THE FINAL INITIAL DETERMINATION IN PART AND TO REMAND THE INVESTIGATION; SCHEDULE FOR WRITTEN SUBMISSIONS ON REMAND DETERMINATION AND ON REMEDY, THE PUBLIC INTEREST, AND BONDING** has been served by hand upon the Commission Investigative Attorney, Thomas S. Fusco, Esq., and the following parties as indicated, on January 30, 2009

  
Marilyn R. Abbott, Secretary *JNB*  
U.S. International Trade Commission  
500 E Street, SW  
Washington, DC 20436

**ON BEHALF OF COMPLAINANTS INEOS FLUOR HOLDINGS LIMITED, INEOS FLUOR LIMITED AND INEOS FLUOR AMERICAS LLC:**

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**PUBLIC VERSION**

UNITED STATES INTERNATIONAL TRADE COMMISSION  
Washington, D.C.

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In the Matter of )

CERTAIN R-134a COOLANT )  
(OTHERWISE KNOWN AS 1,1,1,2- )  
TETRAFLUOROETHANE) )

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Investigation No. 337-TA-623

Final Initial and Recommended Determinations

This is the administrative law judge's Final Initial Determination under Commission rule 210.42. The administrative law judge, after a review of the record developed, finds inter alia that there is jurisdiction and that there is a violation of section 337 of the Tariff Act of 1930, as amended.

This is also the administrative law judge's Recommended Determination on remedy and bonding, pursuant to Commission rules 210.36(a) and 210.42(a)(1)(ii). The administrative law judge recommends the issuance of a limited exclusion order barring entry into the United States of products made by the process of asserted claim 1 of U.S. Patent No. U.S. 5,559,276 and that a bond be set in the amount of 100 percent of entered value of any products made from the infringing process during the Presidential review period.

## APPEARANCES

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U.S. International Trade Commission  
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Washington, DC 20436



## TABLE OF CONTENTS

	PAGE
OPINION .....	1
I. Procedural History .....	1
II. Jurisdiction Including Parties And Importation .....	5
III. Technology At Issue .....	5
IV. Expert Witnesses .....	7
V. Person Of Ordinary Skill In The Art .....	7
VI. Claim Interpretation .....	7
VII. Infringement .....	22
A. Sinochem's New Process .....	23
B. Accused New Process And Infringement .....	28
VIII. Validity .....	30
A. Effective Filing Date .....	34
B. Invention Date .....	43
C. Alleged Prior Art .....	50
D. Double Patenting .....	53
E. Derivation .....	61
IX. Enforceability .....	72
X. Domestic Industry .....	79
A. Complainants' Process .....	80
B. Complainants' Process And Technical Prong .....	84



XI. Remedy .....	86
XII. Bond .....	90
XIII. Additional Findings .....	92
CONCLUSIONS OF LAW .....	96
ORDER .....	96

## ABBREVIATIONS

CBr	Complainants' Post-hearing Brief
CDX	Complainants' Demonstrative Exhibit
CFF	Complainants' Proposed Finding
CORFF	Complainants' Objection To Respondents' Proposed Finding
COSFF	Complainants' Objection To Staff's Proposed Finding
CRBr	Complainants' Post-hearing Reply Brief
CRRFF	Complainants' Proposed Rebuttal Finding to RFF
CRSFF	Complainants' Proposed Rebuttal Finding To SFF
CX	Complainants' Exhibit
JX	Joint Exhibit
RBr	Respondents' Post-hearing Brief
RDX	Respondents' Demonstrative Exhibit
RX	Respondents' Exhibit
RFF	Respondents' Proposed Finding
ROCF	Respondents' Objection To Complainants' Proposed Finding
ROSFF	Respondents' Objection To Staff's Proposed Finding
RRBr	Respondents' Post-hearing Reply Brief
RRCFF	Respondents' Proposed Rebuttal Finding To CFF
RRSFF	Respondents' Proposed Rebuttal Findings To SFF
SBr	Staff's Post-hearing Brief

SRBr Staff's Post-hearing Reply Brief  
SFF Staff's Proposed Finding  
SX Staff's Exhibit  
Tr. Transcript Of Pre-hearing Conference and Hearing

Transcript of Hearing

Transcript of Hearing

## OPINION

### I. Procedural History

A complaint was filed with the Commission on November 20, 2007, under section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, on behalf of INEOS Fluor Limited of the United Kingdom and INEOS Fluor Americas LLC of St. Gabriel, Louisiana (INEOS). A supplemental letter and amended complaint, which included another complainant, INEOS Fluor Holdings Limited of the United Kingdom, were filed on December 13, 2007.

By notice, dated December 21, 2007, the Commission instituted an investigation, pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, to determine whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation in the United States, or the sale within the United States after importation of certain R-134a coolant (otherwise known as 1,1,1,2-tetrafluoroethane) by reason of infringement of claims 1 and 2 of U.S. Patent No. 5,744,658 ('658 patent) and whether an industry in the United States exists as required by subsection (a)(2) of section 337. Named in the notice of investigation as respondents were SinoChem Modern Environmental Protection Chemicals (Xi'an) Co., Ltd. (Corporation China) of China and SinoChem Ningbo Ltd. (Sinochem).

Order No. 3, which issued on January 30, 2008, set a target date of February 28, 2009 which meant that any final initial determination on violation should issue no later than the close of business on December 1, 2008.<sup>1</sup>

Order No. 6, which issued on March 28, 2008, granted complainants' Motion No. 623-5

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<sup>1</sup> The notice was published in the Federal Register on December 31, 2007, (Fed. Reg. Vol. 72, No. 249 at 74326-27).

to file a Second Amended Complaint to (1) add two additional respondents, Sinochem Environmental Protection Chemicals (Taichang) Co. Ltd. (SEPC) and Sinochem (U.S.A.) Inc. (Sinochem-USA), (2) add allegations of infringement of two additional patents, U.S. Patent Nos. 5,382,722 ('722 patent) and 5,559,276 ('276 patent), and (3) modify the request for relief to seek a limited rather than a general exclusion order. The Commission determined not to review Order No. 6 on April 24, 2008.

Order No. 7 denied respondents' Motion No. 623-6 and complainants' Motion No. 623-8 for summary determinations regarding the priority date of the '658 patent.

Order No. 11, which issued on July 1, 2008, found that complainants had satisfied the economic prong of the domestic industry requirement of Section 337. The Commission determined not to review Order No. 11 on July 25, 2008.

Order No. 12, which issued on July 2, 2008, found that complainants had satisfied the importation requirement as to the process that was then accused. The Commission determined not to review Order No. 12 on July 25, 2008.

Order No. 13, which issued on July 10, 2008, denied respondents' Motion No. 623-13 to compel production under the crime-fraud exception and for any waiver of privilege.

Order No. 14, which issued on July 11, 2008, found that complainants had established good cause for the issuance of a protective order that (a) precludes respondents from continuing to use certain documents inadvertently produced by complainants in depositions and filings, at hearing, or otherwise, (b) strikes any reference or testimony regarding said documents in previous depositions, filings, or other submissions, and (c) requires respondents to return or destroy all copies of the privileged documents specified in complainants' motion.

Order No. 16, which issued on July 18, 2008, denied respondents' renewed Motion No. 623-15 for summary determination regarding the priority date to which the '658 patent is entitled.

Order No. 17, which issued on July 18, 2008, denied respondents' Motion No. 623-18 for summary determination of non-infringement of the '722 patent and the '658 patent as applied to respondents' "new process."

Order No. 20, which issued on July 3, 2008, granted complainants' Motion No. 623-22 to preclude Stephen G. Kunin from testifying at any hearing.

Order No. 24, which issued on August 11, 2008, denied complainants' Motion No. 623-25 for sanctions and for shifting the evidentiary burden.

Complainants, by letter dated August 12, 2008 to the administrative law judge, stated that the '658 and '722 patents should no longer be in issue nor should respondents' "current process." It was also represented that certain documents from respondents appear to substantiate respondents' claim that R-134a made by a "new process" has been imported into the United States and thus complainants were withdrawing a motion in limine relating to said issue.

Order No. 25, which issued on August 20, 2008, granted respondents' Motion No. 623-28 to partially terminate the investigation based on entry of a consent order specific to an "old process." The Commission determined not to review Order No. 25 on September 11, 2008.

A prehearing conference and an evidentiary hearing were conducted on August 18, 19, 20, and 21, 2008.<sup>2</sup> In issue at the evidentiary hearing, inter alia, was whether the importation into

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<sup>2</sup> At the prehearing conference on August 18, 2008, the administrative law judge denied complainants' motion in limine to preclude respondents from arguing the affirmative defense of double patenting. (Tr. at 19.)



the United States, the sale for importation, or the sale within the United States after importation by respondents of certain R-134a coolant (otherwise known as 1,1,1,2-tetrafluoroethane) involved infringement of process claim 1 of the '276 patent (JX-5) with respect to respondents' "new process."<sup>3</sup>

The matter is now ready for a final decision.

The Final Initial and Recommended Determinations are based on the record compiled at the hearing and the exhibits admitted into evidence.<sup>4</sup> The administrative law judge has also taken into account his observation of the witnesses who appeared before him during the hearing. Proposed findings of fact submitted by the parties not herein adopted, in the form submitted or in substance, are rejected as either not supported by the evidence or as involving immaterial matters and/or as irrelevant. Certain findings of fact included herein have references to supporting evidence in the record. Such references are intended to serve as guides to the testimony and exhibits supporting the finding of fact. They do not necessarily represent complete summaries of the evidence supporting said findings.

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<sup>3</sup> In light of the granting of Motion No. 623-28, the only remaining patent issues for disposition are related to asserted claim 1 of the '276 patent.

<sup>4</sup> Order No. 26, which issued after the hearing on September 11, 2008, granted complainants' Motion No. 623-37 to reopen the evidentiary record for receipt of terminal disclaimers of the '276 patent identified as CX-300, CX-301, CX-301 and CX-303. On October 20, 2008, complainants moved to reopen the proceedings for receipt into evidence, as complainants' Exhibit CX-304, of the October 14, 2008 Office Gazette publication reflecting the Terminal Disclaimers of the '276 patent, accepted by the U.S. Patent & Trademark Office on September 4, 2008. (Motion Docket No. 623-38.) Complainants represented that the staff will not oppose said motion and that respondents indicated that they will not oppose, subject to the positions taken in their September 10, 2008 opposition to complainants' Motion No. 623-37. Motion No. 623-38 is granted. In said motion, complainants represented that they will file updated exhibit lists reflecting the admission of CX-304 within three business days of any order granting Motion No. 623-38.

## II. Jurisdiction Including Parties And Importation

The private parties in this investigation are complainants, referred to as INEOS, and respondents, referred to as Sinochem. See FF 1-35. The Commission has subject matter jurisdiction over this investigation because INEOS has alleged violation by Sinochem of Section 337 in connection with the importation of certain R-134a coolant, pursuant to 19 U.S.C. § 1337. Amgen, Inc. v. U.S. Int'l Trade Comm'n, 902 F.2d 1532, 1536 (Fed. Cir. 1990). Moreover, there has been the required importation. See complainants' letter to the administrative law judge dated August 12, 2008; see also Stipulation On Importation. (SX-4C.) In addition, the Commission has personal jurisdiction over Sinochem in this investigation because Sinochem has participated fully in said investigation, including in discovery and motion practice. See Certain Audible Alarm Devices For Divers, Inv. No. 337-TA-365, Initial Determination, 1995 ITC LEXIS 66, at \*3 (Feb. 2, 1995).

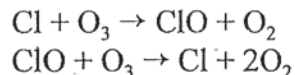
## III. Technology At Issue

Pursuant to Order No. 18, the private parties submitted a joint stipulation, to which the staff had no objection, regarding the technology at issue. (SX-3.) Said stipulation reads:

U.S. Patent No. 5,559,276 ("the '276 patent" or "patent-in-suit") relates to a method for the manufacture of the chemical 1,1,1,2-tetrafluoroethane, which is a hydrofluorocarbon also known as R-134a or HFC-134a. 1,1,1,2-tetrafluoroethane is used primarily as a refrigerant. It has become the most widely used replacement for R-12 (or dichlorodifluoromethane, often called Freon), which is prohibited in many countries by the Montreal Protocol on Substances that Deplete the Ozone Layer.

Although 1,1,1,2-tetrafluoroethane and R-12 both can be used as refrigerants, the chemical compositions of the two compounds differ in that R-12 (like all CFCs) is composed of chlorine, fluorine, and carbon atoms. Once released into the atmosphere, a CFC molecule often is able to pass through the troposphere into the stratosphere because of its low reactivity. In the stratosphere,

ultraviolet light liberates the chlorine atom from the CFC molecule. Chlorine then reacts with ozone to form "normal" oxygen molecules and chlorine monoxide, and chlorine monoxide can react with an ozone molecule to form a chlorine atom and a "normal" oxygen molecule as shown below:



Because CFCs have half-lives of 50 to 100 years, an average CFC molecule degrades around 10,000 ozone molecules in the atmosphere before its removal. As ozone in the stratosphere is depleted, more harmful UVB rays pass through the Earth's atmosphere, resulting in increased risk of skin cancer and global warming. International concern regarding harmful effects of ozone depletion led to the opening for signature of the Montreal Protocol on Substances that Deplete the Ozone Layer on September 16, 1987 and its subsequent entry into force on January 1, 1989.

Unlike R-12, 1,1,1,2-tetrafluoroethane belongs to a family of chemicals called hydrofluorocarbons (HFCs), which contain no chlorine atoms and are composed of hydrogen, fluorine, and carbon. 1,1,1,2-tetrafluoroethane therefore has no harmful effect on the ozone layer, but several of its characteristics-including low toxicity, nonflammability, and thermodynamic properties- are similar to those of R-12. 1,1,1,2-tetrafluoroethane was recognized as the best replacement for R-12 at the adoption of the Montreal Protocol.

U.S. Patent No. 5,559,276

The technology of the '276 patent relates to a particular method for converting trichloroethylene into 1,1,1,2-tetrafluoroethane. The chemistry involves the two-step reaction involving the formation of 1,1,1-trifluoro-2-chloroethane, an intermediate, as follows:



Claim 1 of the '276 patent is drawn to a process for the manufacture of 1,1,2-tetrafluoroethane. Claim 1 recites two reaction zones. Each of the reactions is carried out at a specific temperature range: reaction (ii) is carried out at a temperature between 250 to 450°C, and reaction (i) is carried out at a temperature between 200 to 400°C, but below the temperature of reaction (ii). Both reactions are carried out at superatmospheric pressure. Claim 1 recites that unconverted 1,1,1-trifluoro-2-chloroethane be recycled for further reaction with hydrogen



fluoride.

All parties agree that Claim 1 includes continuous or batch processes within its scope and that the 1,1,1-trifluoro-2-chloroethane produced by reaction one is the 1,1,1-trifluoro-2-chloroethane that is reacted in reaction 2 to produce 1,1,1,2-tetrafluoroethane. Complainants and the Staff believe that no particular sequence or order of the reactors is required. Respondents believe that the particular reactor configuration is subject to, at least, priority and written description issues not yet adjudicated.

#### IV. Expert Witnesses

Leo E. Manzer was qualified as complainants' expert in the area of hydrofluorocarbon manufacture. (Tr. at 395.) Henry Gumprecht was qualified as respondents' expert in the area of the technology of the '276 patent. (Tr. at 640.)

#### V. Person Of Ordinary Skill In The Art

A person of ordinary skill in the technology of the '276 patent at the time of its filing would be a person who had some education in chemistry, probably at least a Master's degree, or possibly in chemical engineering as well, and preferably a Ph.D. That person would have worked with the chemistry that's involved with fluorinated hydrocarbons, such as R-12 or 133a or 134a, and would have experience on handling hydrogen fluoride, the raw materials that are needed for conversion to fluorinated products, the catalyst systems that are known, both liquid phase and vapor phase, and the type of equipment that works well. (Gumprecht, Tr. at 642-43.)

#### VI. Claim Interpretation

Claim interpretation is a question of law. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996) (Markman); see Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1455 (Fed. Cir. 1998). In construing claims, a court should first look to intrinsic evidence, which consists of the language of the claims, the patent's

specification and the prosecution history, as it “is the most significant source of the legally operative meaning of disputed claim language.” Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996) (Vitronics); see Bell Atl. Network Servs., Inc. v. Covad Comm’n. Group, Inc., 262 F.3d 1258, 1267 (Fed. Cir. 2001).

The claims themselves “provide substantial guidance as to the meaning of particular claim terms.” Phillips v. AWH Corp., 415 F.3d 1303, 1314 (Fed. Cir. 2005) (Phillips) (citing Vitronics, 90 F.3d at 1582). It is essential to consider a claim as a whole when construing each term, because the context in which a term is used in a claim “can be highly instructive.” Id. In construing claims, the administrative law judge should first look “to the words of the claims themselves . . . to define the scope of the patented invention.” Vitronics., 90 F.3d at 1582; see generally Phillips, 415 F.3d at 1312-13. Claim terms “are generally given their ordinary and accustomed meaning.” Vitronics, 90 F.3d at 1582.

In Pause Technology, Inc. v. TIVO, Inc., 419 F.3d 1326 (Fed. Cir. 2005) the court stated:

. . . in clarifying the meaning of claim terms, courts are free to use words that do not appear in the claim so long as “the resulting claim interpretation . . . accord[s] with the words chosen by the patentee to stake out the boundary of the claimed property.” Cf. Renishaw PLC v. Marposs Società per Azioni, 158 F.3d 1243, 1248 (Fed. Cir. 1998) (noting that “[w]ithout any claim term susceptible to clarification . . . there is no legitimate way to narrow the property right”).

Id. at 1333. Also, claim terms are presumed to be used consistently throughout the patent, such that the usage of the term in one claim can often illuminate the meaning of the same term in other claims. Research Plastics, Inc. v. Federal Packaging Corp. 421 F.3d 1290, 1295 (Fed. Cir. 2005).

In general, a claim term should be given its ordinary meaning, which may be determined

by reviewing a variety of sources, including the claims themselves, the written description, drawings, and prosecution history of the patent, and, sometimes, dictionaries and treatises.

Ferguson Beauregard/Logic Controls v. Mega Sys., LLC, 350 F.3d 1327, 1338 (Fed. Cir. 2003).

The use of a dictionary, however, may extend patent protection beyond that to which a patent should properly be afforded. There is also no guarantee that a term is used the same way in a treatise as it would be by a patentee. Phillips, 415 F.3d at 1322. The presumption of ordinary meaning will be “rebutted if the inventor has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.” ACTV, Inc. v. Walt Disney Co., 346 F.3d 1082, 1091 (Fed. Cir. 2003).

Differences between the claims are helpful in understanding the meaning of claim terms. Phillips, 415 F.3d at 1314. The presence of a specific limitation in a dependent claim raises a presumption that the limitation is not present in the independent claim. Id., at 1315. This presumption of claim differentiation is especially strong when the only difference between the independent and dependent claim is the limitation in dispute. SunRace Roots Enter. Co., Ltd. v. SRAM Corp., 336 F.3d 1298, 1303 (Fed. Cir. 2003). “[C]laim differentiation takes on relevance in the context of a claim construction that would render additional, or different, language in another independent claim superfluous.” AllVoice Computing PLC v. Nuance Comm’ns, Inc., 504 F.3d 1236, 2007 U.S. App. LEXIS 23949, at \*23 (Fed. Cir. 2007). A claim construction that gives meaning to all the terms of a claim is preferred over one that does not do so. See Merck & Co. v. Teva Pharms. USA, Inc., 395 F.3d 1364, 1372 (Fed. Cir.), cert. denied, 546 U.S. 972 (2005); Alza Corp. v. Mylan Labs. Inc., 391 F.3d 1365, 1370 (Fed. Cir. 2004) (affirming the district court’s rejection of both parties’ claim constructions where those constructions meant that



“the inclusion of the word ‘base’ in the claims would be redundant”).

The preamble of a claim may be significant in interpreting a claims; “a claim preamble has the import that the claim as a whole suggests for it.” Bell Comm’ns Research, Inc. v. Vitalink Comm’ns Corp., 55 F.3d 615, 620, 34 U.S.P.Q.2d 1816, 1820 (Fed. Cir. 1995). If said preamble, when read in the context of an entire claim, recites limitations of the claim, or if the claim preamble is “necessary to give life, meaning, and vitality” to the claim, then the claim preamble should be construed as if in the balance of the claim. Kropa v. Robie, 187 F.2d 150, 152 (CCPA 1951) (Kropa); see also Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997) (Rowe); Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1257 (Fed. Cir. 1989) (Corning Glass). Indeed, when discussing the “claim” in such a circumstance, there is no meaningful distinction to be drawn between the claim preamble and the rest of the claim, for only together do they comprise the “claim.” If, however, the body of the claim fully and intrinsically sets forth the complete invention, including all of its limitations, and the preamble offers no distinct definition of any of the claimed invention’s limitations, but rather merely states the purpose or intended use of the invention, then the preamble may have no significance to claim construction because it cannot be said to constitute or explain a claim limitation. See Rowe, 112 F.3d at 478; Corning Glass, 868 F.2d at 1257; Kropa, 187 F.2d at 152.

In Pitney Bowes Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1306 (Fed. Cir. 1999), the preamble stated that the patent claimed a method of or apparatus for “producing on a photoreceptor an image of generated shapes made up of spots.” The Court found that this was not merely a statement describing the invention’s intended field of use, but rather that said statement was intimately meshed with the ensuing language in the claim. Id. For example, both

of the patent's independent claims concluded with the clause, "whereby the appearance of smoothed edges are given to the generated shapes." Id. Because this was the first appearance in the claim body of the term "generated shapes," the Court found that the term could only be understood in the context of the preamble statement "producing on a photoreceptor an image of generated shapes made up of spots." Id. Similarly, the Court found that the term "spots," which was initially used in the preamble to refer to the elements that made up the image of generated shapes that were produced on the photoreceptor, and then appeared twice in each of the independent claims, referred to the components that together made up the images of generated shapes on the photoreceptor and was only discernible from the claim preamble. Id. The Court concluded that in such a case, it was essential that the preamble and the remainder of the claim be construed as one unified and internally consistent recitation of the claimed invention. Id.

The specification of a patent "acts as a dictionary" both "when it expressly defines terms used in the claims" and "when it defines terms by implication." Vitronics, 90 F.3d at 1582. For example, the specification "may define claim terms by implication such that the meaning may be found in or ascertained by a reading of the patent documents." Phillips, 415 F.3d at 1323 (quoting Iredto Access, Inc. v. Echostar Satellite Corp., 383 F.3d 1295, 1300 (Fed. Cir. 2004)). Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but also in the context of the entire patent, including the specification. Phillips, 415 F.3d at 1314.

A patentee may deviate from the conventional meaning of a particular claim term by making his or her intended meaning clear (1) in the specification and/or (2) during the patent's prosecution history. Lear Siegler, Inc. v. Aeroquip Corp., 733 F.2d 881, 889 (Fed. Cir. 1984). If

a claim term is defined contrary to the meaning given to it by those of ordinary skill in the art, the specification must communicate a deliberate and clear preference for the alternate definition.

Kumar v. Ovonic Battery Co., 351 F.3d 1364, 1368 (Fed. Cir. 2003) (citing Apple Computers, Inc. v. Articulate Sys., Inc., 234 F.3d 14,21 n.5 (Fed. Cir. 2000)). In other words, the intrinsic evidence must “clearly set forth” or “clearly redefine” a claim term so as to put one reasonably skilled in the art on notice that the patentee intended to so redefine the claim term. Bell Atl. Network Servs., Inc. v. Covad Comm’ns. Group, Inc., 262 F.3d 1258, 1268 (Fed. Cir. 2001).

The prosecution history, including “the prior art cited,” is “part of the ‘intrinsic evidence.’” Phillips, 415 F.3d at 1317. The prosecution history “provides evidence of how the inventor and the PTO understood the patent.” Id. Thus, the prosecution history can often inform the meaning of the claim language by demonstrating how an inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would be otherwise. Vitronics, 90 F.3d at 1582-83; see also Chimie v. PPG Indus., Inc., 402 F.3d 1371, 1384 (Fed. Cir. 2005) (“The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution”) (quoting ZMI Corp. v. Cardiac Resuscitator Corp., 844 F.2d 1576, 1580 (Fed. Cir. 1988)); Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576 (Fed. Cir. 1995); Verizon Servs. Corp. v. Vonage Holdings Corp., 503 F.3d 1295, 1306 (Fed. Cir. 2007) (citing Microsoft Corp. v. Multi-tech Sys., Inc., 357 F.3d 1340, 1350 (Fed. Cir. 2004) (“We have held that a statement made by the patentee during prosecution history of a patent in the same family as the patent-in-suit can operate as a disclaimer.”).) The prosecution history includes any reexamination of the patent. Intermatic Inc. v. Lamson & Sessions Co., 273 F.3d 1355, 1367



(Fed. Cir. 2001).

In addition to intrinsic evidence, the administrative law judge may consider extrinsic evidence when interpreting the claims. Extrinsic evidence consists of all evidence external to the patent and the prosecution history, including inventor testimony and expert testimony. This extrinsic evidence may be helpful in explaining scientific principles, the meaning of technical terms, and terms of art. See Vitronics, 90 F.3d at 1583; Markman, 52 F.3d at 980. However, “[e]xtrinsic evidence is to be used for the court’s understanding of the patent, not for the purpose of varying or contradicting the terms of the claims.” Markman, 52 F.3d at 981. Generally, the Federal Circuit has viewed extrinsic evidence as less reliable than the patent and its prosecution history in determining how to define claim terms. Phillips, 415 F.3d at 1318. In addition, extrinsic evidence is unlikely to result in a reliable interpretation of patent claim scope unless it is considered in the context of the available intrinsic evidence. Phillips, 415 F.3d at 1319.

For example, in Nystrom v. Trex Co. 424 F.3d 1136 (Fed. Cir. 2005), the Court stated:

... as explained in Phillips, Nystrom is not entitled to a claim construction divorced from the context of the written description and prosecution history. The written description and prosecution history consistently use the term “board” to refer to wood decking materials cut from a log. Nystrom argues repeatedly that there is no disavowal of scope of the written description or prosecution history. Nystrom’s argument is misplaced. Phillips, 415 F.3d at 1321 (“The problem is that if the district court starts with the broad dictionary definition in every case and fails to fully appreciate how the specification implicitly limits that definition, the error will systematically cause the construction of the claim to be unduly expansive.”). What Phillips now counsels is that in the absence of something in the written description and/or prosecution history to provide explicit or implicit notice to the public—*i.e.*, those of ordinary skill in the art—that the inventor intended a disputed term to cover more than the ordinary and customary meaning revealed by the context of the intrinsic record, it is improper to read the term

to encompass a broader definition simply because it may be found in a dictionary, treatise, or other extrinsic source. Id.

Id. at 1144, 1145. In Free Motion Fitness Inc. v. Cybex Int'l Inc. 423 F.3d 1343 (Fed. Cir. 2005),

the Court concluded that:

under Phillips, the rule that “a court will give a claim term the full range of its ordinary meaning”, Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342 (Fed.Cir. 2001), does not mean that the term will presumptively receive its broadest dictionary definition or the aggregate of multiple dictionary definitions. Phillips, 415 F.3d at 1320-1322. Rather, in those circumstances, where references to dictionaries is appropriate, the task is to scrutinize the intrinsic evidence in order to determine the most appropriate definition.

Id. at 1348, 1349. In Network Commerce, Inc. v. Microsoft Corp. 422 F.3d 1353 (Fed. Cir.

2005), the Court concluded:

As we recently reaffirmed in Phillips, “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court.” Phillips, 415 F.3d at 1318. Here [expert] Coombs does not support his conclusion [the “download component” need not contain the boot program] with any references to industry publications or other independent sources. Moreover, expert testimony at odds with the intrinsic evidence must be disregarded. Id. (“[A] court should discount any expert testimony that is clearly at odds with the claim construction mandated by . . . the written record of the patent.” (internal quotations and citation omitted). That is the case here.

Id. at 1361.

If the meaning of a claim term remains ambiguous after a review of the intrinsic and extrinsic evidence, then the patent claims should be construed so as to maintain their validity.

Phillips, 415 F.3d at 1327. However, If the only reasonable interpretation renders a claim invalid, then the claim should be found invalid. See, e.g., Rhine v. Casio, Inc., 183 F.3d 1342; 1345 (Fed. Cir. 1999).

Claim 1 of the '276 patent (JX-5), the only asserted claim in issue, reads:

1. In a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones involving (1) reaction of trichloroethylene and hydrogen fluoride to produce 1,1,1-trifluoro-2-chloroethane in reaction zone (1) and (2) reaction of the 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride to produce 1,1,1,2-tetrafluoroethane in reaction zone (2) wherein both reactions are carried out at superatmospheric pressure, reaction (2) is carried out at a temperature in the range of 250°-450° C., reaction (1) is carried out at a temperature in the range of 200°-400° C. but below that used in reaction (2) and unconverted 1,1,1-trifluoro-2-chloroethane is recycled for further reaction with hydrogen fluoride.

Thus, claim 1 covers a specific method for the production of 1,1,1,2-tetrafluoroethane.

Complainants never claimed to have invented the chemical 1,1,1,2-tetrafluoroethane. (CRBr at 3.)

As to what language of claim 1 is in dispute, the staff argued that the claim terms in question are what is emphasized infra:

1. In a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones involving (1) reaction of trichloroethylene and hydrogen fluoride to produce 1,1,1-trifluoro-2-chloroethane in reaction zone (1) and (2) reaction of the 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride to produce 1,1,1,2-tetrafluoroethane in reaction zone (2) wherein both reactions are carried out at superatmospheric pressure, reaction (2) is carried out at a temperature in the range of 250°-450° C., reaction (1) is carried out at a temperature in the range of 200°-400° C. but below that used in reaction (2) and unconverted 1,1,1-trifluoro-2-chloroethane is recycled for further reaction with hydrogen fluoride.

(SBr at 5.) Complainants, however, argued that there are no disputes regarding “reaction zone” and “unconverted 1,1,1-trifluoro-2-chloroethane.” (CBr at 33, 34.) Complainants argued that



the former is interpreted as “separate areas where such reaction takes place,” citing CFF IV.4,<sup>5</sup> and that “unconverted 1,1,1-trifluoro-2-chloroethane” is interpreted as “1,1,1-trifluoro-2-chloroethane that has not been converted into 1,1,1,2-tetrafluoroethane,” citing CFF IV.16.<sup>6</sup> Respondents objected to CFF IV.4, stating that it mischaracterizes the record and is incomplete, and argued, *inter alia*, that the parties agree that “reaction zone” means a “zone or area within which distinctive circumstances exist or are established to carry out” the specified reaction. (RRCFF IV.4.) Respondents also objected to CFF IV.16 on the ground that it is incomplete and misleading.

In contrast to respondents, the staff had no objection to CFF IV.4 or CFF IV.16. The staff argued that, while the wording of the positions of the private parties are different, each of said constructions of “reaction zone” is consistent and any differences are immaterial. (SBr at 12.) The staff represented that the parties do not dispute that the “reaction zone (1)” of claim 1 refers to the reaction zone where trichloroethylene and hydrogen fluoride are reacted to form 1,1,1-trifluoro-2-chloroethane and that the “reaction zone (2)” refers to the reaction zone where 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride are reacted to form

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<sup>5</sup> CFF IV.4 reads:

Within claim 1 of the ‘276 patent, the term “reaction zone” means “separate areas where each reaction takes place.” (Order No. 18 Responses at Question 5).

<sup>6</sup> CFF IV.16 reads:

Within claim 1 of the ‘276 patent, “unconverted 1,1,1-trifluoro-2-chloroethane” means “1,1,1-trifluoro-2-chloroethane that has not yet been converted into 1,1,1,2-tetrafluoroethane.” (Manzer Tr. 432:7-11; Order No. 18 Responses at Questions 12-13.)

1,1,1,2-tetrafluoroethane, citing e.g., Manzer, Tr. at 422:12-22, 424:17-19 and Gumprecht, Tr. at 707:5-11, 708:10-15. Thus, the staff argued that the only dispute with regard to said “reaction zone” is whether the “(1)” and “(2)” designations in the claim require a specific sequence to the reactions. The staff’s position is that the “(1)” and “(2)” designations do not require a specific reaction sequence, and that there is no other language in the patent requiring a specific sequence. (SBr at 12.)

Based on the “two separate reaction zones” language of asserted claim 1, the administrative law judge finds that a person of ordinary skill in the art would conclude that the “reaction zone (1)” of asserted claim 1 refers to the reaction zone in which trichloroethylene and hydrogen fluoride are reacted to form 1,1,1-trifluoro-2-chloroethane; that the “reaction zone (2)” refers to the reaction zone in which 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride are reacted to form 1,1,1,2-tetrafluoroethane; and that each reaction is carried out in distinct areas. He further finds that said conclusion is supported by the specification of the ‘276 patent. See reference in said specification to “two-step reaction sequence carried out in separate reaction zones as hereinafter described” (JX-5, 1:52-54) and the description of the Embodiments I and II (JX-5, 2:3-61). Moreover, reference is made to the abstract which recites in part “[a] method of producing 1,1,1,2-tetrafluoroethane in two separate reaction zones . . . .”

As to whether asserted claim 1 reads on a continuous process, the staff argued:

As a general matter, several of the claim construction disputes go to the issue of whether the asserted claim of the patent-in-suit is directed to only the “start-up” cycle of the described method, or whether it more broadly covers a “continuous”<sup>[7]</sup> or

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<sup>7</sup> This footnote, which was fn. 6 in said paragraph of SBr, reads:

“semi-continuous” operation<sup>[8]</sup> of the described process. The evidence shows that there are no limitations in the claims, specification, or prosecution history which limit the method to a “start-up” cycle, as the phrase is used by Respondents.<sup>[9]</sup> See JX-5 (‘276 patent) and JX-6 (‘276 patent file history), generally. The plain and ordinary meaning of the terms applies, therefore, and for the reasons described below, the plain and ordinary meaning of the terms allows for the semi-continuous operation of the claimed method.

(SBr at 6-7.)

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As Complainants’ expert, Dr. Manzer, described, a person of ordinary skill in the art would understand that “[a] continuous process is a process where there is a continuous feed to that process and there is a continuous removal of product from that process.” Manzer, Hearing Tr. at 408:1-4, 414:12-20 (August 19, 2008).

<sup>8</sup> This footnote, which was fn. 7 in said paragraph of SBr, reads:

The specification of the ‘276 patent indicates that continuous operation (claimed in dependent claim 8) is preferred, but also notes that, practically speaking, the manufacturing practice described therein would need to be shut down and started up again periodically due to catalyst degeneration and other issues [See JX-5, 3:55:67]. Thus, rather than referring to the “continuous” operation of the process (which might imply perpetual operation), the Staff will refer to “semi-continuous” operation, which is referred to in the patent as “discontinuous” operation.

<sup>9</sup> This footnote, which was fn. 8 in said paragraph of SBr, reads:

The staff notes that respondents use the term “start-up” process apparently to mean the first cycle of a process upon start-up. Respondents’ expert, Dr. Gumprecht, at deposition, used the term differently to mean any process that is not in perpetual motion (*i.e.* truly continuous). Dr. Gumprecht was amenable to use of the term “semi-continuous” at his deposition instead of “start-up” – which is inconsistent with the position Respondents appear to be taking. Thus, it is unclear that Respondents’ expert actually supports many of Respondents’ statements about so-called “start-up” processes; although Respondents and their expert use the same terms, they do not necessarily mean the same thing.

Respondents argued:

All parties agree that Claim 1 includes “batch” (and/or continuous) processes within its scope. . . . There is no requirement that the two reaction zones be “connected” in any fashion. See *id.* Thus, the two reactions may be conducted in separate reactors and at separate times. (RFF III. 35.)

(RBr at 15.) Hence, there is no dispute that asserted claim 1 reads on a continuous process, *i.e.*, there is a continuous feed to and a continuous removal from that process. Such is further supported by dependent claim 8 and the specification. See footnote 8 *supra*. Thus, asserted claim 1 is not limited to the “start-up” cycle of the claimed method.

Complainants argued that all parties agree that claim 1 of the '276 patent does not require that the two reaction zones must be directly connected, (*i.e.* that the product of one reaction zone must be “passed” into the other reaction zone), citing *inter alia* CFF IV.10.<sup>10</sup> (CRBr at 3-4.) Respondents, however, argued that CFF IV.10 mischaracterizes the record. As to CFF IV.10, respondents argued, *inter alia*, that “reaction (1)” must happen before “reaction (2),” and “reaction zone (1)” must be upstream, *i.e.*, in front of, “reaction zone (2).” Otherwise, it is argued that there is no 1,1,1-trifluoro-2-chloroethane for “reaction (2),” and “reaction (2)” cannot proceed without the 1,1,1-trifluoro-2-chloroethane from “reaction zone (1)” that is produced by “reaction (1).” (RRCFF IV.10). Thus, respondents argued that claim 1 of the '276 patent requires a particular sequence or order of the two reaction zones, wherein the trichloroethylene to 1,1,1-trifluoroethane-2-chloroethane reaction and reaction zone must occur before and be

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<sup>10</sup> CFF IV.10 reads:

Claim 1 of the '276 patent requires no particular sequence or order of the reaction zones. (JX-5 at col. 7, ll. 18-30; Manzer Tr. 424:13-15).



upstream of the 1,1,1-trifluoroethane-2-chloroethane to 1,1,1,2-tetrafluoroethane reaction and its reaction zone. (RRCFF IV.10H.)

In issue is whether asserted method claim 1 requires that the reaction of trichloroethylene and hydrogen fluoride (characterized as reaction zone (1) in claim 1) must precede the reaction of 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride (characterized as reaction zone (2) in claim 1). In other words, must the two reactions be performed only in the order in which they are written in the claim. In Interactive Gift Express, Inc. v. CompuServe Inc., 256 F.3d 1323 (Fed. Cir. 2001), the Court stated: “Unless the steps of a method actually recite an order, the steps are not ordinarily construed to require one. However, such a result can ensue when the method steps implicitly require that they be performed in the order written. In this case, nothing in the claim or the specification directly or implicitly requires such a narrow construction.” Id. at 1342-43 (citations omitted). The administrative law judge finds nothing in said asserted method claim 1 of the ‘276 patent or in the specification of the ‘276 patent that directly or implicitly requires the two reactions specified in said claim to be construed narrowly such that the reactions must be performed in the order in which they are described. To the contrary, the “advantageous” Embodiment I of said specification discloses the manufacture of 1,1,1,2-tetrafluoroethane “according to the invention” as involving in “first reaction zone” step (A) contacting a mixture of 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride to form a product containing 1,1,1,2-tetrafluoroethane and hydrogen chloride together with unreacted starting materials (reaction zone (2) of said claim 1) and then in a “second reaction zone” step (B) passing the “product” of step (A) together with trichloroethylene to form a product containing 1,1,1-trifluoro-2-chloroethane, 1,1,1,2-tetrafluoroethane, hydrogen chloride and trichloroethylene (reaction zone (1) of said

claim 1) and then after step (C), which involves treating the “product” of step (B) to separate 1,1,1,2-tetrafluoroethane and hydrogen chloride from 1,1,1-trifluoro-2-chloroethane, unreacted hydrogen fluoride and trichloroethylene, in step (D) feeding the 1,1,1-trifluoro-2-chloroethane mixture obtained from step (C) together with hydrogen fluoride to said first reaction zone (step A). (JX-5, 2:3-27, 4:49-50.) Hence, the specification of the '276 patent clearly discloses that the sequence in which the reactions are written in asserted claim 1 is not a claim limitation.

Referring to CFF IV.16 and the claim term “unconverted 1,1,1-trifluoro-2-chlorethane,” respondents argued that, in the context of asserted claim 1, where 1,1,1-trifluoro-2-chloroethane is formed by the reaction of trichloroethylene and hydrogen fluoride, said term means that 1,1,1-trifluoro-2-chloroethane formed from the reaction of reaction zone (1), which was not converted to 1,1,1,2-tetrafluoroethane in the reaction of reaction zone (2). (RRCFF IV.16A.) Respondents also argued that the description of either the “reverse process” or the “forward process” in the '276 patent and its parent patents or applications requires that unconverted 1,1,1-trifluoro-2-chloroethane be recycled in a mixture with unreacted hydrogen fluoride and trichloroethylene. (RRCFF IV.16C.)

Pursuant to the plain language of asserted claim 1, which discloses a reaction zone (1) in which trichloroethylene and hydrogen fluoride are reacted to produce 1,1,1-trifluoro-2-chloroethane and a reaction zone (2) in which said 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride are reacted to produce 1,1,1,2-tetrafluoroethane, i.e., the “forward process,” the administrative law judge finds that a person of ordinary skill in the art would conclude that the claim term “unconverted 1,1,1-trifluoro-2-chloroethane” would be interpreted as 1,1,1-trifluoro-2-chloroethane which has not been converted to 1,1,1,2-tetrafluoroethane in reaction zone (2).



However, the administrative law judge further finds that the specification of the '276 patent would inform a person of ordinary skill in the art that the claim term "unconverted 1,1,1-trifluoro-2-chloroethane" should not be limited to 1,1,1-trifluoro-2-chloroethane formed from the reaction of trichloroethylene and hydrogen fluoride in reaction zone (1) that has not been converted to 1,1,1,2-tetrafluoroethane in the reaction of reaction zone (2).

The administrative law judge has already found, supra, that claim 1 of the '276 patent does not require a particular sequence or order of the two reactions. Because of this, the administrative law judge also finds that a person of ordinary skill in the art, in view of advantageous Embodiment I of the specification (JX-5, 2:3-20, 4:49-50), and its steps (A), (B), (C), and (D), i.e., the "reverse process," would not limit the claim term "unconverted 1,1,1-trifluoro-2-chloroethane" to the unreacted 1,1,1-trifluoro-2-chloroethane used in the reaction with hydrogen fluoride in reaction zone (1) to produce 1,1,1,2-tetrafluoroethane, which is then used in the reaction of reaction zone (2).

## VII. Infringement

The unfair acts covered under Section 337 include "all forms of infringement, including direct, contributory, and induced infringement." Certain Home Vacuum Packaging Machines, Inv. No. 337-TA-496, Order No. 44, 2004 ITC LEXIS 202, at \*2 n.2 (March 3, 2004). To establish infringement, there must be a preponderance of evidence. See Kao Corp. v. Unilever, Inc., 441 F.3d 963 (Fed. Cir. 2006).

A determination of patent infringement encompasses a two-step analysis. Advanced Cardiovascular Sys., Inc. v. Scimed Life Sys., Inc., 261 F.3d 1329, 1336 (Fed. Cir. 2001) (Scimed). First, the court determines the scope and meaning of the patent claims asserted. Id.

Then, the properly construed claims are compared to the allegedly infringing device. Id. Direct infringement includes the making, using, selling, offering for sale and importing into the United States of an infringing product, or a product made by an infringing process, without authority. 35 U.S.C. § 271(a). To prove direct infringement, the plaintiff must establish by a preponderance of the evidence that one or more claims of the patent read on what is accused, either literally or under the doctrine of equivalents. Scimed, 261 F.3d at 1336. “Literal infringement of a claim exists when each of the claim limitations reads on, or in other words is found in, the accused device.” Allen Engineering Corp. v. Bartell Indus., 299 F.3d 1336, 1345 (Fed. Cir. 2002).

A. Sinochem’s New Process

The private parties stipulated as to Sinochem’s new process. (SX-1C). The staff has no objection to said stipulation. Thus, pursuant to said stipulation, as well as Exhibits A and B <sup>11</sup> referenced in said stipulation, there follows a description of Sinochem’s New Process:

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<sup>11</sup> The colors “red”, “green” and “blue” are identified in the Commission set of exhibits.

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Based on the foregoing, Sinochem's new process uses {

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B. Accused New Process And Infringement

The administrative law judge finds that Sinochem's new process literally infringes every element of claim 1 of the '276 patent. Thus with respect to the initial language of said claim 1, viz, "In a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones," Sinochem's new process is a method for the production of 1,1,1,2-tetrafluoroethane in

{ (SX-1C at ¶¶ 1-2; Manzer, Tr. at 444-47.) This is because 1) a product of the new process is 1,1,1,2-tetrafluoroethane, (SX-1C at ¶ 2), and 2) the new process uses {

} (SX-1C at ¶¶ 1, 2.)

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Based on the foregoing, the administrative law judge finds that INEOS has established, by a preponderance of the evidence, that Sinochem's new process literally infringes each and every element of claim 1 of the '276 patent.

With respect to respondents' argument that, because in Sinochem's new process {

} . Thus, the administrative law judge finds this fact irrelevant with respect to his findings supra that the accused new process infringes asserted claim 1 of the '276 patent.

#### VIII. Validity

In issue is the status of five references, which respondents asserted as prior art, that allegedly invalidate the '276 patent. Those references are:

- 1) EP 0 366 797 A1 (RX-121) (the Showa Denko reference), which

respondents allege invalidates the '276 patent under 35 U.S.C. 102(a) because of a publication date of May 5, 1990;

2) EP 0 408 005 A1 (RX-152) (the Ausimoni reference), which respondents allege invalidates the '276 patent under 35 U.S.C. 102(a) because of a publication date of January 16, 1991;

3) U.S. Patent No. 5,157,172 (RX-162) (the Marangoni reference) which respondents allege invalidates the '276 patent under 35 U.S.C. 102(e) because of a filing date of July 12, 1990;

4) U.S. Patent No. 5,334,786 (JX-26) (and European Patent Application 0446869 (the Daikin references) which respondents allege invalidate the '276 patent under 35 U.S.C. 102(e) because of a filing date of March 12, 1991; and

5) U.S. Patent No. 5,185,482 (RX-119) and WO 90108755 (the Manzer references), which respondents allege invalidate the '276 patent under 35 U.S.C. 102(e) because of a filing date of January 17, 1992.<sup>12</sup>

(RRBr at 19.) Generally, all patents, publications and public uses which have been in existence prior to a patentee's date of invention or more than a year prior to his filing date are referred to as "prior art." Mohasco Indus., Inc. v. E. T. Barwick Mills, Inc., 221 F. Supp. 191, 195 (N.D. Ga. 1963). Thus, if any of those five references does not pre-date claim 1 of the '276 patent, as to the patent's priority date or invention date, such reference does not qualify as "prior art" and shall not be used to support respondents' invalidity arguments.

In this investigation, complainants have alleged that respondents infringe claim 1 of the '276 patent; therefore, complainants have the burden of persuasion by a preponderance of the

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<sup>12</sup> Respondents and complainants agree on the effective dates for each of the references except RX-119. Complainants alleged that the filing date that appears on the face of RX-119, January 17, 1992, is the applicable date of the reference. (CBr at 31.) Respondents argued that RX-119 is entitled to an earlier filing date of February 3, 1989 and/or August 3, 1990, based upon earlier continuation applications. (RRBr at 19-20.) Respondents however also argued that the earlier applications are "irrelevant as a matter of law." (RRBr at 19-20.)

evidence that respondents infringe. Tech. Licensing Corp. v. Videotek, Inc., Nos. 2007-1441, 1463, 2008 U.S. App. LEXIS 21380, at \*22 (Fed. Cir. Oct. 10, 2008) (Tech. Licensing). In response to the infringement allegations, respondents asserted the affirmative defense of invalidity of claim 1 of the '276 patent, based on said five references. (RRBr at 19.)

When an alleged infringer attacks the validity of an issued patent, the well-established law places the burden of persuasion on the attacker to prove invalidity by clear and convincing evidence. Tech. Licensing, at \*22-23. Thus, respondents must prove by clear and convincing evidence that claim 1 of the '276 patent is invalid. Neither complainants' burden to prove infringement nor respondents' burden to prove invalidity ever shifts to the other party and thus "the risk of decisional uncertainty stays on the proponent of the proposition." Id. at 23; see also PowerOasis, Inc. v. T-Mobile USA, Inc., 522 F.3d 1299, 1303, 1305 (Fed. Cir. 2008); Pfizer, Inc. v. Apotex, Inc., 480 F.3d 1348, 1360 (Fed. Cir. 2007); Certain Condensers, Parts Thereof and Prods. Containing Same, Inv. No. 337-TA-334, 1994 ITC LEXIS 733, at \*16 (Comm. Op. Feb. 1994).

In addition to the burden of persuasion, each party bears a different burden, which is the burden of going forward with evidence and is called the "burden of production." Tech Licensing at \*23. This is "a shifting burden the allocation of which depends on where in the process of a trial the issue arises." Id. Going forward with evidence means that a party must produce additional evidence, as well as present persuasive argument based on evidence of record or the additional evidence. Id.

Relying on Tech. Licensing, in this investigation, complainants have the initial burden of going forward with evidence in support of the allegation that respondents infringe claim 1 of the

'276 patent. Id. at \*23-24. Respondents, however, have the ultimate burden of proving invalidity based on any available prior art, which means that respondents have the burden of going forward with evidence that there is prior art on which to base a finding of invalidity. Id. at \*24. If respondents present prior art that could invalidate claim 1 of the '276 patent, complainants then acquire the burden of going forward with evidence that either 1) the '276 patent is not invalid or 2) each alleged prior art reference is not actually prior art because claim 1 of the '276 patent is entitled to the benefit of a priority date and/or United States invention date prior to the effective date of the reference. Id.

In order to be entitled to the benefit of a priority date that is earlier than the filing date of the '276 patent, complainants must show the existence of a prior application (an ancestor of the '276 patent) that has an earlier filing date than the effective date of the reference, and why the written description in the prior application supports all of the limitations of claim 1 of the '276 patent. Id. at \*24-25. In a chain of continuing applications, "a claim in a later application receives the benefit of the filing date of an earlier application so long as the disclosure in the earlier application meets the requirements of 35 U.S.C. § 112, P1,<sup>13</sup> including the written description requirement, with respect to that claim." Id. at \*19. If complainants meet the burden

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<sup>13</sup> Section 112, paragraph 1 states:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

35 U.S.C. § 112.



of going forward with evidence and argument that claim 1 of the '276 patent is entitled to the benefit of an earlier priority date and/or invention date than the '276 patent's filing date, respondents must then "convince" the administrative law judge that complainants are not entitled to the benefit of the earlier date. Id. at \*25. "'Convince' is the operative word, because if the [administrative law judge] is not persuaded by clear and convincing evidence that [respondents are] correct, [respondents have] failed to carry [their] ultimate burden of persuasion, and [their] defense of invalidity . . . fails." Id.

A. Effective Filing Date

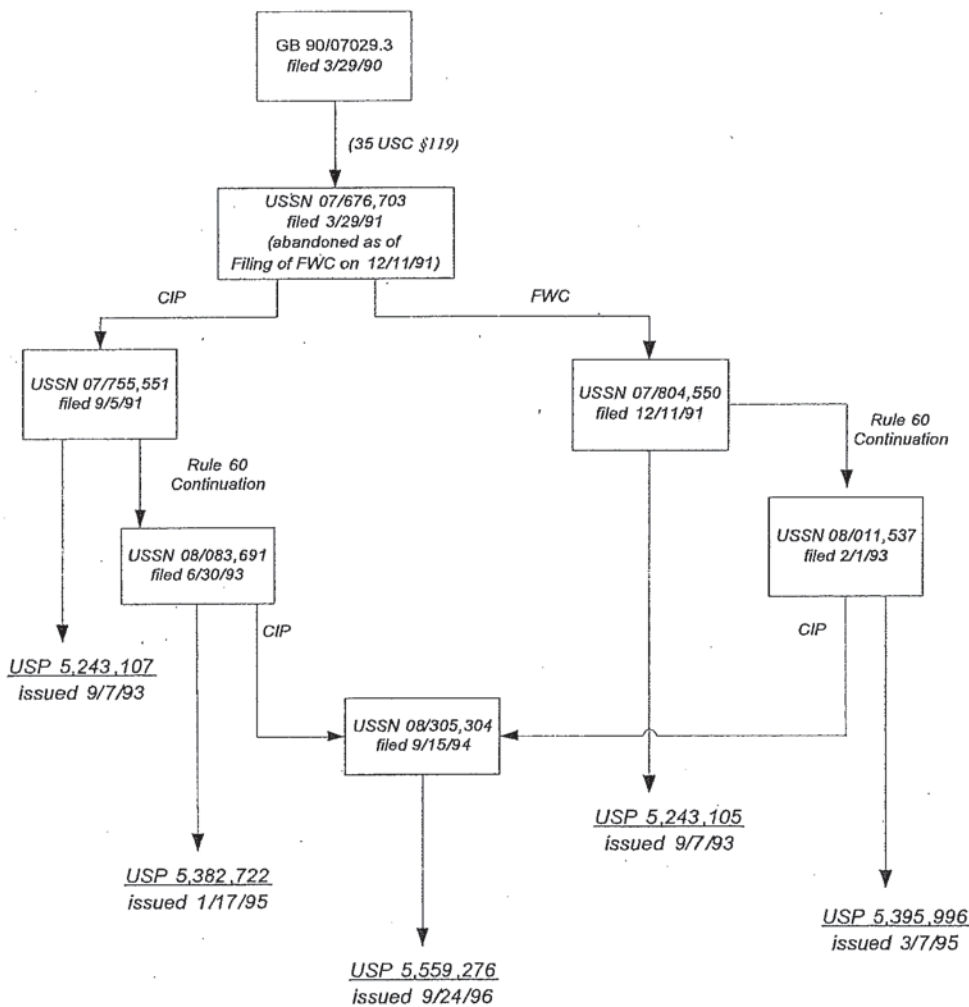
In issue is the effective filing date of the '276 patent. The '276 patent issued from application number 08/305,304 (the '304 application) (JX-5). The '304 application was filed on September 15, 1994 as a continuation-in-part of application number 08/011,537 (the '537 application) and application number 08/083,691 (the '691 application). (JX-5.) The '276 patent claims priority through both of those patent applications. (JX-5.)

The '537 application was filed on February 1, 1993, and issued as U.S. Patent No. 5,395,996 on March 7, 1995. (RX-166, JX-25). The '537 application was filed as a continuation of application number 07/804,550 (the '550 application), which issued as US. Patent No. 5,243,105 (the '105 patent) on September 7, 1993. (JX-25.) The '550 application was filed on December 11, 1991 as a file wrapper continuation of application number 07/676,703 (the '703 application), which was filed on March 29, 1991. (JX-25.) The '703 application was filed within the 12-month window for claiming priority to the GB Application, which was filed on March 29, 1990. (JX-23.)

The '691 application was filed on June 30, 1993, and issued as U.S. Patent No. 5,382,722

on January 17, 1995. (JX-3, JX-12.) The '691 application was filed as a continuation of application number 07/755,551 (the '551 application), which issued as U.S. Patent No. 5,243,107 (the '107 patent) on September 7, 1993. (JX-3, JX-12.) The '551 application was filed on September 5, 1991 as a continuation-in-part of the '703 application. (CFF 111.6 (undisputed).) As stated previously, the '703 application claims priority to the GB application filed on March 29, 1990.

The following chart demonstrates the lineage of the '276 patent:



Complainants argued for several alternative priority dates to which the '276 patent is allegedly entitled. Complainants argued that, as a continuation-in-part application, the lineage of the '304 application (which issued as the '276 patent) could be traced back to the filing date of the '551 application (September 5, 1991). Alternatively, complainants argued that said '304 application could be traced back to the filing date of the '703 application (March 29, 1991). Hence, it is argued that claim 1 of the '276 patent is entitled to a 35 U.S.C. § 102(b) priority date of either March 29, 1991 or September 5, 1991. (CBr at 8.)

Complainants also argued that Great Britain application No. 9007029.3 (the GB Application), which was filed on March 29, 1990, discloses an embodiment of the invention of asserted claim 1 of the '276 patent; that said '703 application was filed in the United States within twelve months of the GB Application and properly claimed Section 119 priority; and that, because the '276 patent traces back to said '703 application (via Section 120), claim 1 of the '276 patent is entitled to an effective date of reduction to practice of March 29, 1990, pursuant to 35 U.S.C. § 119.

Finally, complainants argued that they may properly claim a February 1990 invention date under 35 U.S.C. §§ 102(a), 102(e), and 102(g) because the inventors of the patent-in-suit allegedly conceived the invention in February 1990 in the United States, and worked on the invention diligently until they constructively reduced it to practice by filing claim said '551 and '703 applications on September 5, 1991 and March 29, 1991, respectively. (CBr at 8-9.)

In summary, complainants argued that they may claim a priority date of September 5, 1991 or March 29, 1991, or an effective date of reduction to practice of March 29, 1990, or an invention date of February 1990. (CBr at 8-9.) Complainants also argued that respondents did

not brief conception, diligence and reduction to practice. (CBr at 19-22.)

The staff argued that the record indicates that the effective filing date of the '276 patent is at least as early as September 5, 1991, the filing date of the '551 application<sup>14</sup> for U.S. Patent No. 5,243,107 (JX-12), which was the first U.S. application in this patent family. (Respondents' Deposition Ex. 29 (patent family tree)). The '551 application claims a "reverse" sequence method of manufacturing 1,1,1,2-tetrafluoroethane. The staff also argued that different claims within the same application or patent may be entitled to different filing dates if, for example, the filing was a continuation-in-part application that included new matter (for example, the '304 application for the '276 patent was a continuation-in-part of applications for both the "forward sequence" U.S. Patent No. 5,395,996 (RX-166) and the "reverse sequence" U.S. Patent No. 5,382,722 (JX-3)); and that because, under the "proper" claim construction, asserted claim 1 of the '276 patent covers both the "forward" and "reverse" reaction sequences, the '276 patent is entitled to the June 30, 1993 filing date of U.S. Patent No. 5,382,722 (the '722 patent) for at least the "reverse" sequence. The '722 patent is entitled to the September 5, 1991 filing date of U.S. Patent No. 5,243,107 (the '107 patent). Thus, claim 1 of the '276 patent (the "reverse" sequence) is also entitled to the September 5, 1991 filing date because the evidence shows that each of these applications, by the same inventors, was co-pending and contains written description support for the inventions claimed. (Comparing JX-5 ('276 patent), JX-3 ('722 patent), and JX-12 ('107 patent)). Thus, the staff argued that the '276 patent traces back to the filing date of the '107

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<sup>14</sup> The staff noted that, due to a typographical error, the face of the '276 patent incorrectly lists as a related document application number 07/755,554 instead of 07/755,551 for the '551 application. Respondents have not raised this typographical error as bearing on the priority of the '276 patent.



patent. Similarly, for at least the "forward" reactor sequence process, the '276 patent is entitled to the February 1, 1993 filing date of the '996 patent, which is in turn entitled to the December 11, 1991 filing date of U.S. Patent No. 5,243,105 (JX-25), which is in turn entitled to the March 29, 1991 filing date of the '703 application (RX-83), as the evidence shows that each of those applications, by the same inventors, was co-pending and contains written description support for the inventions claimed. (SBr at 20-22.)

The staff also argued that there is an unbroken chain of co-pendency from the '276 patent all the way back through at least the '551 application for the '107 patent; that specifically, the '304 application for the '276 patent was filed on September 15, 1994, while the '537 application for the '722 patent (filed June 30, 1993 and issued January 17, 1995) was pending, and, in turn, the '537 application for the '722 patent was filed on June 30, 1993, while the '550 application for the '107 patent (filed September 5, 1991 and issued September 7, 1993) was pending, (citing JX-5 ('276 patent), JX-3 ('722 patent) and JX-12 ('107 patent)); that there is an unbroken chain of co-pendency from the '276 patent all the way back through at least the '703 application; that specifically, the '304 application for the '276 patent was filed on September 15, 1994, while the '537 application for the '996 patent (filed February 1, 1993 and issued March 7, 1995) was pending; that in turn, the '537 application for the '996 patent was filed February 1, 1993, while the '550 application for the '105 patent (filed December 11, 1991 and issued September 7, 1993) was pending; and that in turn, the '550 application for the '105 patent was filed December 11, 1991, while the '703 application (filed March 29, 1991 and abandoned in 1992) was pending. (JX-5 ('276 patent), RX-166 ('996 patent), JX-25 ('105 patent) and RX-83 ('703 application); SBr at 23.)

The staff argued that, to claim priority under Section 120, the invention of the application for which priority is to be determined must be fully supported by the written description of the earlier applications in the chain of priority. The staff further argued that the evidence shows that the chain of co-pending "reverse" sequence applications provides full written description support for the "reverse" sequence embodiment of the '276 patent; that similarly, the evidence shows that the chain of co-pending "forward" sequence applications provides full written description support for the "forward" sequence embodiment of the '276 patent, further establishing that claim 1 of the '276 patent is entitled to a priority date of no later than September 5, 1991 (the latter of the priority dates for the "forward" and "reverse" sequence chains of applications); that the disclosure for the "reverse" sequence process in each of the subject applications is virtually the same; that the '107 and '722 patents share a common specification from the '551 application (comparing JX-12 ('107 patent) with JX-3 ('722 patent)); that the "reverse" sequence disclosure of the '276 specification was taken almost word-for-word from the '722 patent (of which it was a continuation-in-part, the new matter pertaining to the "forward" sequence) (comparing JX-5 ('276 patent) with JX-3 ('722 patent)); and that, by way of example, the "invention" of the '722 patent is described in its specification (at col. 1, ll. 32-59) using the same language used to described Embodiment I (the "reverse" sequence embodiment) of the '276 patent specification (at col. 2, ll. 3-28) and thus, any "reverse" sequence support was constant throughout the chain from the shared specification of the "reverse" process '107 and '722 patents, to the continuation-in-part '276 patent (covering both the "reverse" and "forward" reactor sequences). (JX-5 ('276 patent), JX-3 ('722 patent) and JX-12 ('107 patent).) The staff then argued that the common disclosure discloses how to practice each of the limitations of claim 1 of the '276



patent. (JX-5 ('276 patent), JX-3 ('722 patent), and JX-12 ('107 patent); SBr at 23-25.)

The staff also argued that similarly, the disclosure for the "forward" sequence in each of the subject applications is virtually the same; that the '703 application and the '105 and '996 patents share a common specification from the '703 application (comparing RX-83 ('703 application) with JX-25 ('105 patent), RX-166 ('996 patent)); that the "forward" sequence disclosure of the '276 specification was taken almost word-for-word from the '996 patent (of which it was a continuation-in-part, the new matter pertaining to the "reverse" sequence) (comparing JX-5 ('276 patent) with RX-166 ('996 patent)); and that, by way of example, the "invention" of the '996 patent is described in its specification (at col. 1, l. 66-col. 2, l. 26) using the same language used to described Embodiment II (the "forward" sequence embodiment) of the '276 patent specification (at col. 2, ll. 28-61) and thus, any "forward" sequence support was constant throughout the chain from the shared specification of the "forward" sequence '703 application filed March 29, 1991 and the '105 and '996 patents, to the continuation-in-part '276 patent (covering both the "reverse" and "forward" reactor sequences). (JX-5 ('276 patent), RX-166 ('996 patent), JX-25 ('105 patent) and RX-83 ('703 application).) The staff then argued that the common disclosure discloses how to practice each of the limitations of claim 1 of the '276 patent. (JX-5 ('276 patent), RX-166 ('996 patent), JX-25 ('105 patent) and RX-83 ('703 application); SBr at 25-26.)

Addressing the issue of written description, the staff argued that the "forward" and "reverse" sequence disclosures common to the specifications of the applications in the priority chains leading to the '276 patent are sufficient to "indicate to persons skilled in the art that as of the earlier date the application had invented what is now claimed" and that the applications relied

upon for the priority claim “reasonably convey[] to a person skilled in the art that the inventor had possession of the claimed subject matter at the time of the earlier filing date.” Thus, the staff argued that respondents have not shown, by clear and convincing evidence, that claim 1 of the ‘276 patent lacks adequate written description in its own specification or in the specification of any of the priority applications for either the “reverse” or “forward” sequence process. (SBr at 26.)

Respondents argued that complainants cannot show priority back to the GB application. Respondents asserted that the GB application only covers a “reverse process,” i.e., it does not also cover a “forward process” based on the disclosure required under 35 U.S.C. § 112 (e.g., that the GB application shows that the applicants had possession of, or provided an adequate written description of, the forward process). (RX-30.) According to respondents, the GB application merely states, in a comparative example, that “[t]o demonstrate the invention [i.e., the foregoing reverse process], the ‘conventional order to the series reactors was reversed’ [i.e., the forward order was used].” (RRBr at 17.) Thus, the respondents argued that said GB application otherwise confirms that the “invention” of the application is the reverse series process, i.e., Embodiment I described in the specification of the ‘276 patent.

Respondents further argued that, at best, complainants can try to establish an effective filing date of March 29, 1991 for claim 1 of the ‘276 patent, which is the filing date of the ‘703 application. (RX-83.) Respondents argued that claim 1 of the ‘276 patent recites a temperature range for the conversion of 1,1,1-trifluoro-2-chloroethane to 1,1,1,2-tetrafluorethane of 250-400°C; that no parent application provides support for the limitation that this reaction can be

carried out starting at 250°C;<sup>15</sup> that the lowest temperature taught for this reaction in any of the parent applications is 280°C; and thus, that the '276 patent is limited to its own filing date (September 15, 1994) because no parent application provides written description support as required by 35 U.S.C. § 112. (RRBr at 18.)

The administrative law judge previously found that asserted claim 1 of the '276 patent covers both the "forward" and "reverse" reaction sequences, see supra. In addition, he now finds that, for the "reverse" reaction sequence process, the '276 patent is entitled to the June 30, 1993 filing date of the '722 patent, which is in turn entitled to the September 5, 1991 filing date of the '107 patent. This is because the evidence shows that the '691 application, filed June 30, 1993, and the '551 application, filed September 5, 1991, by the same inventors, were co-pending and contain written description support for the invention claimed. (See JX-5 ('276 patent), JX-3 ('722 patent) and JX-12 ('107 patent) and chart supra.) Also, he finds that, for the "forward" reaction sequence process, the '276 patent is entitled to the February 1, 1993 filing date of the '996 patent, which in turn is entitled to the December 11, 1991 filing date of the '105 patent, which in turn is entitled to the March 29, 1991 filing date of the '703 application. Again, this is because each of the applications leading to the said patents were filed by the same inventors, were co-pending and contain written description of the invention claimed. (See chart supra). See also Williams v. General Surgical Innovations, Inc., 60 Fed. Appx. 284, 287 (Fed. Cir. 2003) (the right to priority provided by Section 120 is based on either (1) "a previously filed co-pending application" or (2) "a chain of applications without a break in pendency") (emphasis added) and

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<sup>15</sup> At the same time, respondents argued that a variety of temperatures, including the range of 250-450°C, were known in the prior art. (See RBr at 12; ROCPFF III.98; RRCPPF III.107.)

Eiselstein v. Frank, 52 F.3d 1035, 1038-39 (Fed. Cir. 1995), and Certain Condensers, Parts Thereof and Prods. Containing Same, Inv. No. 337-TA-334, Commission Opinion (Feb. 1994).

Hence, the administrative law judge finds that the effective filing date of claim 1 of the '276 patent, which covers both the "forward sequence" and "reverse sequence," is at least September 5, 1991.

B. Invention Date

Complainants argued that they may properly claim a February 1990 invention date under 35 U.S.C. §§ 102(a), 102(e), and 102(g) because the inventors of the '276 patent conceived the invention claimed in claim 1 in February 1990 in the United States, and worked on the invention diligently until they constructively reduced it to practice by filing said U.S. applications ('703 and '551 applications) on March 29, 1991 and September 5, 1991. (CBr at 8-9.)

The staff argued that, in addition to the applicable filing date for priority purposes, the invention date of applicants' invention is relevant to what constitutes prior art; and that complainants presented evidence indicating that, based on conception of the invention and diligence in reducing it to practice, the invention date precedes the critical date for certain prior art. (SBr at 26.) The staff further argued that respondents did not dispute that (a) in 2002, the Federal Circuit held that the inventors of the '276 patent had priority over an alleged reference, (b) the inventors of the '276 patent were entitled to a conception date of at least as early as February of 1990, and (c) the invention was diligently reduced to practice during the critical time period; and therefore, the invention date is at least as early as February 1990. (SRBr at 10.)

Respondents argued that complainants cannot rely upon any asserted diligence, because the evidence should be limited to a reverse series process and thus does not support diligence to a



reduction to practice of the forward series invention. (RRBr at 18.) Respondents further argued that complainants' proposed facts are irrelevant because the St. Gabriel manufacturing facility relied on by complainants implemented the reverse series process, which respondents allege is not claimed in claim 1 of the '276 patent. (ROCPFF III.128, 133-137, 147-148, 150, 153-154, 157-158, 160-163.)

Priority of invention is a "question of law, based on findings of evidentiary fact directed to conception, reduction to practice, and diligence." Scott v. Koyama, 281 F.3d 1243, 1246 (Fed. Cir. 2002) (Scott). It is also governed by 35 U.S.C. § 102(g), which requires that "when the first to conceive the invention is the last to reduce it to practice, the person who was first to conceive must have exercised reasonable diligence to his own actual or constructive reduction to practice, 'from a time prior to conception by the other.'" Hyatt v. Boone, 146 F.3d 1348, 1351 (Fed. Cir. 1998) (Hyatt).

The Federal Circuit explained that conception is "the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice.... A priority of conception is established when the invention is made sufficiently plain to enable those skilled in the art to understand it. Because conception is a mental act, it must be proven by evidence showing what the inventor has disclosed to others and what that disclosure means to one of ordinary skill in the art." In re Jolley, 308 F.3d 1317, 1321 (Fed. Cir. 2002) (Jolley) (internal quotations and citations omitted). Thus, "[c]onception is the touchstone to determining inventorship." Fina Oil & Chem. Co. v. Ewen, 123 F.3d 1466, 1473 (Fed. Cir. 1997).

When the first to conceive of an invention is the last to reduce it to practice, the "first

conceiver” must show reasonable diligence from “a date just prior to the other party’s conception.” Marhurkar v. C. R. Bard, Inc., 79 F.3d 1572, 1578 (Fed. Cir. 1996). According to the Federal Circuit, “[t]he activities that may be considered in a showing of diligence can take a diversity of forms.” Scott, 281 F.3d at 1248; see also Brown v. Barbacid, 436 F.3d 1376, 1380 (Fed. Cir. 2006) (Brown) (observing that, “unlike the legal rigor of conception and reduction to practice, diligence and its corroboration may be shown by a variety of activities.”).

The Federal Circuit employs a liberal, flexible test in evaluating diligence, and “the basic inquiry is whether, on all of the evidence, there was reasonably continuing activity to reduce the invention to practice. There is no rule requiring a specific kind of activity in determining whether the applicant was reasonably diligent in proceeding toward an actual or constructive reduction to practice.” Brown, 436 F.3d at 1380. Evidence of activity “progressing to the building of a plant for commercial practice of the process” may be considered when evaluating whether complainants demonstrated reasonable diligence. Scott, 281 F.3d at 1248-49. Thus, activities directed toward large-scale practice of a claimed process, i.e., efforts to actually reduce the process to practice, “are relevant to diligence until constructive reduction to practice.” Id. at 1248. Although corroboration is required to substantiate reasonable diligence, “corroboration may be provided by sufficient independent circumstantial evidence, and corroboration of every factual issue contested by the parties is not a requirement of the law.” Jolley, 308 F.3d at 1328.

Finally, “the filing of a patent application serves as conception and constructive reduction to practice of the subject matter described in the application.” Hyatt, 146 F.3d at 1352. An inventor may retain the benefit of the filing date of an original application as the date of



constructive reduction to practice by filing continuation or divisional applications under sections 120 and 121. See Hyatt, 146 F.3d at 1351-52; Fried v. Murray, 267 F.2d 326, 327 (C.C.P.A. 1959). Furthermore, the filing of a foreign patent application serves as a constructive reduction to practice where an applicant properly makes a claim of foreign priority under section 119(a) and “[c]onstructive reduction to practice does not invoke different standards whether the priority document is foreign or domestic.” Frazer v. Schlegel, 498 F.3d 1283, 1287 (Fed. Cir. 2007).

“The primary meaning of the word ‘invention’ in the Patent Act unquestionably refers to the inventor's conception rather than to a physical embodiment of that idea.” Pfaff v. Wells Elecs., 525 U.S. 55, 60 (1998). If complainants show a date of conception in the United States prior to the effective date of an alleged prior art reference, along with reasonable diligence from the date of conception until the date of actual or constructive reduction to practice, complainants are entitled to a United States invention date that is the date of conception. Conception is the “formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice.” Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1376 (Fed. Cir. 1986) (Hybritech). Because conception is a mental act, “it must be proven by evidence showing what the inventor has disclosed to others and what that disclosure means to one of ordinary skill in the art.” Jolley, 308 F.3d at 1321.

Regarding the date of conception in the United States, the parties agreed that, beginning in February 1988, Imperial Chemical Industries, PLC (ICI) discussed plans to build a 1,1,1,2-tetrafluoroethane plant in the United States. (CPFF III.104 (undisputed).) The parties also agreed that, in October 1989, ICI announced that it would build a facility for the manufacture of 1,1,1,2-tetrafluoroethane in St. Gabriel, Louisiana. (CPFF III.103 (undisputed).) The parties further

agreed that "Project Hotel" was ICI's code name for the manufacturing facility to be built in the United States in St. Gabriel, Louisiana. (CPFF III.109 (undisputed).) The parties also agreed that the "Project Hotel flow sheet" shows the reverse series process and is exhibit CX-270C. (CPFF III.115 (undisputed).)

The parties further agreed that, in January 1991, John Pacillo, operations director and site manager for INEOS, moved to St. Gabriel, Louisiana to work at the site of the manufacturing facility. (CPFF III.164 (undisputed).) Pacillo testified that the flow sheet for complainants' St. Gabriel, Louisiana plant for the manufacture of 1,1,1,2-tetrafluoroethane, as claimed in the '276 patent (see technical prong discussion, infra), was "fixed" or "frozen" in February 1990, meaning that the conceptual design was complete and was intended to be taken to fruition at that time. (See Pacillo, Tr. at 263, 303, 357-358; see also JX-35C (Spooner deposition testimony) at 102.)

In addition, Pacillo testified regarding his personal knowledge of, and reports documenting, the diligent progress in planning, constructing, and finalizing the plant for manufacture during the period of time from February 1990 into 1992, when the first 1,1,1,2-tetrafluoroethane product was manufactured at St. Gabriel. (See Tr. at 263-279, 281-3036; CX-229C (2/20/1990 Preliminary Electrical Hazard Classification for St. Gabriel plant), CX-226C (4/17/1990 meeting minutes regarding meetings held on March 9, March 12, and April 9, 1990 regarding choice of materials for construction of St. Gabriel plant), CX-233C (5/16/1990 design philosophy statement for St. Gabriel plant), CX-231C (7/16/1990 memorandum regarding piping and line specifications for St. Gabriel plant); CX-227C (8/23/1990 meeting minutes for 8/21/1990 catalyst design/safety review meeting), CX-236C (9/24/1990 hazard study meeting minutes for St. Gabriel plant), CX-235C (10/4/1990 hazard study meeting minutes for St. Gabriel plant),

CX-234C (11/26/1990 hazard study for St. Gabriel plant); CX-223C (11/12/1990 compilation of hazard studies for St. Gabriel plant covering September, October and November of 1990), CX-224C (Badger Design & Constructors Monthly Progress Report No. 1 for St. Gabriel plant for period 1/1/1991-1/25/1991), CX-250C (Badger Design & Constructors Monthly Progress Report No. 2 for St. Gabriel plant for period 1/26/1991-2/22/1991), CX-251C (Badger Design & Constructors Monthly Progress Report No. 3 for St. Gabriel plant for period 2/23/1991-3/29/1991), CX-252C (Badger Design & Constructors Monthly Progress Report No. 4 for St. Gabriel plant for period 3/30/1991-4/26/1991), CX-253C (Badger Design & Constructors Monthly Progress Report No. 5 for St. Gabriel plant for period 4/27/1991-5/24/1991), CX-254C (Badger Design & Constructors Monthly Progress Report No. 6 for St. Gabriel plant for period 5/27/1991-6/28/1991), CX-257C (Badger Design & Constructors Monthly Progress Report No. 9 for St. Gabriel plant for period 8/23/1991-9/27/1991), CX-237C (Badger Design & Constructors Monthly Progress Report No. 10 for St. Gabriel plant for period 9/28/1991-10/25/1991), CX-255C (Badger Design & Constructors Monthly Construction Report #7 for St. Gabriel plant for period 10/18/1991-11/14/1991), CX-256C (Badger Design & Constructors Monthly Construction Report #8 for St. Gabriel plant for period 11/15/1991-12/19/1991), CX-239C (Badger Design & Constructors Monthly Progress Report No. 12 for St. Gabriel plant for period 11/23/1991-12/27/1991), CX-240C (Badger Design & Constructors Monthly Progress Report No. 13 for St. Gabriel plant for period 12/27/1991-1/24/1992), and CX-242C (Badger Design & Constructors Monthly Progress Report No. 15 for St. Gabriel plant for period 2/24/1992-3/27/1992); CX-246C (Badger Design & Constructors Monthly Progress Report No. 19 for St. Gabriel plant for period 6/29/1992-7/24/1992)). Pacillo confirmed that the information



in said documents was consistent with his personal knowledge of the events and that he considered the documents to be accurate and relied upon them in the course of his work at the time. (See Pacillo, Tr. at 358-359.)

The parties also agreed that, in July 1991, Dr. Gareth Robinson, medical products regulatory manager for INEOS, visited ICI's manufacturing facility in St. Gabriel, Louisiana, and observed that preliminary construction work was underway. (CPFF III.187; ROCPFF III.187 (objecting only on relevance).) The parties also agreed that ICI was able to complete the construction of the St. Gabriel manufacturing facility in less than three years, beginning with the development of the flow sheet in February 1990 and continuing until completion of the facility in December 1992, which is when ICI first began manufacturing 1,1,1,2-tetrafluoroethane. (CFF III.216-217; ROCPFF III.216-217 (objecting only on relevance grounds).)

In addition, in an interference proceeding (CX-222) regarding related U.S. Patent No. 5,243,105 (the '105 patent), the Federal Circuit determined that the inventors of the patent-in-suit had priority over the invention of the Daikin references that respondents assert here. See Scott. Thus, based on the foregoing, the administrative law judge finds that the evidence shows that the invention of claim 1 of the '276 patent was conceived by at least February of 1990, and that the inventors exercised reasonable diligence to September 5, 1991, the date that they constructively reduced the invention to practice by filing the application for the '107 patent.

Regarding respondents' argument that the St. Gabriel manufacturing facility implemented the reverse series process, which respondents alleged is not claimed in the '276 patent, the administrative law judge has found that asserted claim 1 of the '276 patent does cover the reverse series process. Thus, this argument is unpersuasive. In addition, although the reverse series

process ICI employed at St. Gabriel is just one embodiment of the invention claimed in the '276 patent, the Federal Circuit has held that "conception of a species within a genus may constitute conception of the genus." Oka v. Youssefye, 849 F.2d 581, 584 (Fed. Cir. 1988).

C. Alleged Prior Art

The administrative law judge has found, supra, that the effective filing date of claim 1 of the '276 patent is at least September 5, 1991. Moreover, he has found, supra, that the evidence establishes that the claimed invention in issue was conceived by at least February 1990 and that the inventors exercised reasonable diligence to at least September 5, 1991, the date on which the inventors constructively reduced the claimed invention to practice by filing the application for the '107 patent.

Referring to the art relied on by respondents, supra, with respect to the Daikin reference, U.S. Patent No. 5,334,786 (the '786 patent), which issued on August 2, 1994, was filed on January 27, 1993 and claims priority as a continuation from a patent application filed on March 12, 1991. (JX-26.) The earliest publication date of the '786 patent is its issue date, viz., August 2, 1994. As that date is after the September 5, 1991 priority date of claim 1 of the '276 patent, the '786 patent fails to qualify as prior art under either 35 U.S.C. §§ 102(a) or 102(b).

The earliest possible effective U.S. filing date of the '786 patent is March 12, 1991.<sup>16</sup> (JX-26.) This date is after the U.S. invention date of February 1990 for the '276 patent. As a

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<sup>16</sup> As to any foreign-filed applications to which an asserted prior art reference claimed priority pursuant to 35 U.S.C. § 119 to establish an earlier effective date of the prior art reference, § 119 gives rise to a right of priority that is personal to the United States applicant. Due to the personal nature of this right, an applicant for a U.S. patent may only benefit from the priority of a foreign application if it was filed by the U.S. applicant or "on his behalf." Boston Scientific Scimed, Inc. v. Medtronic Vascular, Inc., 497 F.3d 1293, 1297 (Fed. Cir. 2007) (internal citations and quotations omitted).

result, the '786 patent does not qualify as prior art under any of 35 U.S.C. §§ 102(a), 102(e), or 102(g)(2).<sup>17</sup>

Based on the foregoing, the administrative law judge finds that neither the '786 patent nor the EP application 044869 qualifies as prior art to claim 1 of the '276 patent under any subsection of 35 U.S.C. § 102.

Referring to the Ausimoni reference, EP 0,408,005 A1 (the EP '005 patent application) was filed on July 11, 1990 and published on January 16, 1991. (RX-152.) As the January 16, 1991 publication of the EP '005 patent application is not more than one year prior to the September 5, 1991 priority date, the EP '005 patent application does not qualify as prior art under 35 U.S.C. § 102(b). Similarly, the January 16, 1991 publication date of the EP '005 patent application is after the U.S. date of invention of the '276 patent (February 1990). Hence, the EP '005 patent application does not qualify as prior art under either 35 U.S.C. §§ 102(a) or 102(g)(2). Finally, as the EP '005 patent application is not a U.S. application, it fails to qualify as prior art under 35 U.S.C. § 102(e).

Thus, the administrative law judge finds that the EP '005 patent application does not qualify as prior art to claim 1 of the '276 patent under any subsection of 35 U.S.C. § 102.

Referring to the Managoni reference, U.S. Patent No. 5,157,172 (the '172 patent) has a filing date of March 2, 1992 and an issue date of October 20, 1992. (RX-162.) The '172 patent claims priority to an application filed July 12, 1990. (RX-162.) The earliest publication date for

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<sup>17</sup> EP 0,446,869 (the EP '869 patent) is a European Patent published on September 18, 1991 and the European counterpart to the '786 patent. The EP '869 patent does not contain any additional relevant disclosures than what is disclosed in the '786 patent. Because the EP '869 patent was published in September 18, 1991, after the effective filing date of the '276 patent, it also is not prior art under § 102.



the '172 patent is its issuance date, viz. October 20, 1992 (RX-162.) As this date is after the September 5, 1991 priority date, the '172 patent fails to qualify as prior art under either 35 U.S.C. §§ 102(a) or 102(b). The earliest effective U.S. filing date for the '172 patent is July 12, 1990. This date is after the U.S. invention date of February 1990 for the '276 patent.

Thus, the administrative law judge finds that the '172 patent does not qualify as prior art to claim 1 of the '276 patent under any subsection of 35 U.S.C. § 102.

Referring to the Manzer reference, U.S. Patent No. 5,185,482 issued on February 9, 1993 from an application that was filed on January 17, 1992. (RX-119.) The earliest publication date for the '482 patent is its issuance date, viz. February 9, 1993. As this date is after the September 5, 1991 priority date, the '482 patent fails to qualify as prior art under either 35 U.S.C. § 102(a) or § 102(b). (JX-5, RX-119.) The face of the '482 patent states that it is a continuation of another application filed on August 3, 1990, which in turn is a continuation of an application filed on February 3, 1989. Sinochem, however, has failed to offer any evidence of the disclosures of those prior applications. Indeed, neither of those earlier applications has been admitted into evidence, nor is there any testimony in the record as to their respective disclosures. As a result, the administrative law judge finds that Sinochem has failed to meet its burden of clear and convincing evidence to show that the '482 patent is entitled to any earlier priority date than its actual filing date, viz., January 17, 1992. As this date is after the September 5, 1991 priority date, the '482 patent fails to qualify as prior art under 35 U.S.C. §§ 102(e) or 102(g)(2).<sup>18</sup>

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<sup>18</sup> The international counterpart application to the Manzer patent, WO 90/08755, was filed on January 3, 1990, published on August 9, 1990, and does not designate the United States. As the August 9, 1990 publication of WO 90/08755 is not more than one year prior to the March 29, 1991 U.S. effective filing date of the '276 patent, the administrative law judge finds that WO 90/08755 does not qualify as prior art under 35 U.S.C. § 102(b). Similarly, as the August 9,

Thus, the administrative law judge finds that the '482 patent does not qualify as prior art to claim 1 of the '276 patent under any subsection of 35 U.S.C. § 102.

Referring to the Showa Denko reference, EP 0,366,797 A1 (the EP '797 patent application) was filed on January 10, 1989 and published on May 5, 1990. (RX-121.) As the May 5, 1990 publication of the EP '797 patent application is not more than one year prior to the March 29, 1991 U.S. effective filing date of the '276 patent, the administrative law judge finds that the EP '005 patent application does not qualify as prior art under 35 U.S.C. § 102(b). Similarly, the May 5, 1990 publication date of the EP '797 patent application is after the US. date of invention of the '276 patent (February 1990). Thus, the EP '797 patent application does not qualify as prior art under either 35 U.S.C. §§ 102(a) or 102(g)(2). Finally, as the EP '797 patent application is not a U.S. application, it fails to qualify as prior art under 35 U.S.C. § 102(e).

Thus, the administrative law judge finds that the EP '005 patent application does not qualify as prior art to claim 1 of the '276 patent under any subsection of 35 U.S.C. § 102.

#### D. Double Patenting

In issue is whether the '276 patent (JX-5) is invalid due to obviousness-type double patenting. During prosecution of the '276 patent, in a rejection dated October 5, 1995, the Examiner rejected all claims pending in the application that led to the '276 patent, based on a finding of obviousness-type double patenting:

Claims 1-11 are rejected under the judicially created doctrine of

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1990 publication date is after the U.S. date of invention of the '276 patent (February 1990) WO 90/08755 does not qualify as prior art under either 35 U.S.C. §§ 102(a) or 102(g)(2). Finally, as WO 90/08755 is not a U.S. application and did not designate the United States, it fails to qualify as prior art under 35 U.S.C. § 102(e).

obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 5,382,722 [the '722 patent]; claims 1-12 of U.S. Patent No. 5,395,996 [the '996 patent]; claims 1-13 of U.S. Patent No. 5,243,105 [the '105 patent] and claims 1-10 of U.S. Patent No. 5,243,107 [the '107 patent]. Although the conflicting claims are not identical, they are not patentably distinct from each other because substantially the same process is being claimed.

(JX-6.00070.) On March 6, 1996, the Examiner approved a terminal disclaimer of the '276 patent with respect to the '105 patent. (JX-6.00085.)

In their post-hearing brief, respondents argued that claim 1 of the '276 patent is invalid based on obviousness-type double patenting due to the alleged lack of a "valid" terminal disclaimer, *viz.* lack of a provision necessitating common ownership throughout the life of several particular patents. (RBr at 19-23.) Respondents argued that, although the patent applicants filed a terminal disclaimer with respect to the '105 patent to overcome the double patenting rejection of the Examiner set forth *supra*, such disclaimer was "improperly" directed to only the '105 patent. (RBr at 21; RFF V.2; RFF V.5.)

Respondents further argued that claim 1 of the '276 patent is broader than each of claim 1 of the '722 patent, claim 1 of the '996 patent, claims 1, 12 and 13 of the '105 patent, and claim 1 of the '107 patent. (RBr at 19, 22-23; RFF V.6-8.) Hence, respondents asserted that, because the terminal disclaimer filed and directed to the '105 patent does not mandate common ownership of the '276 patent with the '722, '966, and '107 patents, the terminal disclaimer is "inoperable as a matter of law," and therefore claim 1 of the '276 patent is invalid based on obviousness-type double patenting. (RBr at 21-23.)

In addition to contending that respondents failed to adequately plead a double patenting



defense, complainants argued that such a defense is moot. (CBr at 81.) In support, complainants argued that they filed, and the U.S. Patent and Trademark Office (PTO) accepted, terminal disclaimers specifically directed to each of the '722, '996, and '107 patents in regard to the '276 patent. (CBr at 81-82.) Complainants also argued that the PTO's decision to grant the terminal disclaimers prior to the administrative law judge rendering a decision on invalidity moots respondents' double patenting defense relating to claim 1 of the '276 patent. (CBr at 82.)

The staff argued that respondents did not meet their heavy burden of proving, by clear and convincing evidence, that claim 1 of the '276 patent is invalid based on obviousness-type double patenting over the claims of the '722, '996, and '107 patents. (SBr at 51-53.) In support, the staff argued that respondents do not appear to have properly plead or fully developed the defense. The staff also argued that the Examiner's allowance of the claims of the '276 patent after the patent applicants filed the terminal disclaimer directed to the '105 patent indicated that 1) any double patenting rejection issued by the Examiner was overcome and 2) the Examiner considered the terminal disclaimer to be effective. (SBr at 52; JX-6 at JX-6.00070, JX-6.00073-77, JX-6.00078, and JX-6.00085.) It is further asserted that even if respondents' argument regarding an ineffective terminal disclaimer is correct, such does not establish that there is double patenting. (SBr at 53.) Finally, the staff argued that it understood that complainants were seeking to add newly granted terminal disclaimers for the '722, '996, and '107 patents to the evidentiary record, thus rendering any argument regarding prior terminal disclaimers irrelevant and mooting respondents' double patenting defense. (SBr at 53.)

On September 8, 2008, complainants did file Motion No. 623-37 requesting that the administrative law judge reopen the proceedings for receipt into evidence of three terminal

disclaimers (CX-301; CX-302; CX-303) limiting the term of the '276 patent to the extent of the terms of the '722, '996, and '107 patents.<sup>19</sup> The administrative law judge found that there was good cause to grant Motion No. 623-27. (Order No. 26 at 3.) The administrative law judge also gave all parties the opportunity to supplement their post-hearing filings with respect to the terminal disclaimers admitted into evidence, no later than the close of business on September 15, 2008. (Order No. 26 at 3.) No supplements were received. The parties, however, did address the terminal disclaimers in their post-hearing reply briefs.

Complainants, in their reply brief, referring to the terminal disclaimers admitted into evidence on September 11, 2008, argued that respondents' failure to supplement their post-hearing filings is an admission that the double patenting defense is moot. (CRBr at 7.) Complainants further asserted that respondents acknowledged in their briefs that complainants' only obstacle to overcoming the double patenting defense was the PTO's acceptance of terminal disclaimers with respect to each of the '722, '996, and '107 patents in regard to the '276 patent and, thus, nothing further remains for respondents to argue. (CRBr at 7.) Complainants also argued that respondents failed to demonstrate substantively that claim 1 of the '276 patent is invalid due to obviousness-type double patenting because respondents did not construe the claims of the alleged double patenting references, viz, the '722, '996, and '107 patents, and compare them to the construed claims of the '276 patent. (CRBr at 8-9.)

The staff, in its reply brief, agreed with complainants that respondents' defense of obviousness-type double patenting became moot when the administrative law judge allowed the

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<sup>19</sup> The patent application information retrieval system on the PTO website (PAIR) indicates that the PTO did not approve the terminal disclaimers until September 20, 2008.

newly issued terminal disclaimers to be received into evidence. (SRBr at 14.) The staff also agreed that respondents themselves acknowledged that the defense would apply only if complainants did not file “adequate” terminal disclaimers. (SRBr at 14-15 citing RBr at 19, 22.)

Respondents, in their reply brief, alleged that complainants never disputed that the ‘276 patent is allegedly invalid, in view of the record at the close of the hearing on August 21, 2008. (RRBr at 25.) Respondents reiterated their arguments made in opposition to Motion No. 623-37 and then asserted that complainants were on notice of and failed to address the issues of harm and justification in their post-hearing brief. (RRBr at 27-28.) Therefore, according to respondents, complainants 1) waived any argument on those issues; 2) are precluded from using the terminal disclaimers produced on September 8, 2008; and, 3) waived any argument that the ‘276 patent is not invalid based on obviousness-type double patenting. (RRBr at 27-28.)

The affirmative defense of double patenting requires respondents to prove double patenting by clear and convincing evidence. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444 (Fed. Cir. 1984) (invalidity requires clear and convincing proof, and the burden remains at all times with the patent challenger); Carman Indus., Inc. v. Wahl, 724 F.2d 932, 940, 220 USPQ 481, 487 (Fed. Cir. 1983) (“[t]here is a heavy burden of proof on one seeking to show double patenting”). There are two type of double patenting. Statutory double patenting applies when the same invention is being claimed twice. Obviousness-type double patenting, which is at issue in this investigation, applies when any claim in a patent application is merely an obvious variation of an invention claimed in the patent asserted as supporting double patenting. General Foods Corp. v. Studiengesellschaft Kohle mbH, 972 F.2d 1272, 1278 (Fed. Cir. 1992).

A terminal disclaimer moots an obviousness-type double patenting defense. Certain Flash



Memory Devices and Components Thereof, Inv. No. 337-TA-552, Initial Determination at 257-62 (Nov. 6, 2006) (Flash Memory Devices); Certain Dynamic Random Access Memories, Components Thereof, and Products Containing Same, Inv. No. 337-TA-242, Initial Determination at 459-60 (June 8, 1987) (DRAMs).

In Flash Memory Devices, complainant filed a terminal disclaimer two days before the hearing began. Initial Determination at 259. During the pre-hearing conference, respondents made reference to the disclaimer. Id. Complainant admitted that one had been filed and argued that, if the PTO granted the terminal disclaimer, respondents would not have a double patenting defense. Id. at 259-60. Respondents then requested that the terminal disclaimer “be out of the case.” Id. at 260. The administrative law judge ruled that respondents’ request was premature because no terminal disclaimer had been offered into evidence. Id. The PTO granted the terminal disclaimer after the hearing ended and complainant sent a letter to the administrative law judge, arguing that respondents’ double patenting defense was moot. Id. The administrative law judge reopened the investigation and admitted the terminal disclaimer into evidence, stating that the relevant term of the patent at issue had been disclaimed through the PTO’s actions and that such actions mooted an obviousness-type double patenting defense, at least as of the day that the PTO granted the terminal disclaimer. Id. at 260-62.

In DRAMs, complainant filed terminal disclaimers after the evidentiary hearing had commenced but before evidence relating to the patents at issue was heard. Initial Determination at 460. Respondents in DRAMs asserted that the terminal disclaimers were untimely filed and should not be given effect. Id. However, the administrative law judge determined that the filing of a terminal disclaimer after an infringement suit has commenced is “accepted practice” and that

the disclaimers were effective. Id.

Similar to Flash Memory Devices and DRAMs, respondents in this investigation argued that the administrative law judge should not give effect to the three recently filed terminal disclaimers in this investigation. Respondents did not argue that the recently filed disclaimers are facially “ineffective,” “inoperable,” or “invalid.” According to respondents, complainants’ recently filed terminal disclaimers should have no effect only because the PTO accepted and granted them after complainants filed the complaint, after discovery closed, and after the hearing ended on August 21, 2008. In addition, respondents argued that complainants’ post-discovery and post-hearing request should be given no retroactive effect because it is unjustified and harmful.

As found supra, the term of the ‘276 patent was previously disclaimed with respect to the ‘105 patent, as approved by the PTO on March 6, 1996. The term of the ‘276 patent, subsequent to the expiration of the ‘772, ‘996, and ‘107 patents, has now been disclaimed, as evidenced by the PTO’s approval of the terminal disclaimers on September 20, 2008. Therefore, all four of the double patenting references identified by the Examiner are explicitly and presently “commonly owned” with the ‘276 patent.

By statute, there is no time limitation on when a party may file a terminal disclaimer, 35 § U.S.C. 253, and administrative law judges in other investigations, as well as various district court judges, have found that a terminal disclaimer moots an obviousness-type double patenting defense, even if the disclaimer is granted post-trial or after the patent challenger alleges double patenting. See, e.g., Flash Memory Devices at 257-62; DRAMs at 459-60; Syngenta Seeds, Inc. v. Monsanto Co., No. 02-1331-SLR, 2004 U.S. Dist. LEXIS 26910 at \*7-10 (D. Del. Nov. 19,

2004); Bayer AG v. Barr Labs., Inc., 798 F. Supp. 196, 199-200 (S.D.N.Y. 1992); Bott v. Four Star Corp., 675 F. Supp. 1069, 1074 (E.D. Mich. 1987), aff'd, 856 F.2d 202 (Fed. Cir. 1988) (unpub.). Based on the foregoing, the administrative law judge finds that respondents have not met their burden in establishing, by clear and convincing evidence, that claim 1 of the '276 patent is invalid based on obviousness-type double patenting.

The administrative law judge, in finding that respondents have not met their burden, further finds that the cases on which respondents relied, *i.e.*, Dayco Prods., Inc. v. Total Containment, Inc., 329 F.3d 1358, 1365 (Fed. Cir. 2003) (Dayco) and In re Van Ornum, 686 F.2d 937, 944 (C.C.P.A. 1982) (Van Ornum), are inapposite. Respondents relied on said cases to demonstrate that the original terminal disclaimer filed in regard to the '276 patent is allegedly ineffective because it does not mandate common ownership with the '722, '966, and '107 patents. (RBr at 20-23.) Each such case is distinguishable from this investigation.

Inequitable conduct, not obviousness-type double patenting, was at issue in Dayco, 329 F.3d at 1362. The Federal Circuit affirmed the district court's finding that a pending patent application, which could have served as the basis for a double patenting rejection, was material to the patentability of the applications that led to the patents in suit. Id. at 1364-66. In dicta, the Federal Circuit indicated that the "shortening of a patent's term is not the only result of overcoming a double patenting rejection by terminal disclaimer," but rather, a terminal disclaimer also limits the enforceability of a patent to the period in which that patent is "commonly owned" with the patent that is the basis for the double patenting rejection. Id. at 1365. Disclosure of the potential double patenting reference was found to be material to the Examiner because it could have led to a disclaimer requiring common ownership. Id. Dayco

does not refer to a situation in which a terminal disclaimer allegedly does not mandate common ownership. Nor does it refer to what occurs when a terminal disclaimer is granted post-trial.

The administrative law judge finds that Van Ornum is similarly unavailing to respondents, as it is a case in which the inventors were unable to comply with the terminal disclaimer common ownership provision, 37 § C.F.R. 1.321(b). 686 F.2d at 944. The inventors had assigned all right, title and interest in the patents that served as the double patenting references to two different companies, “A” and “B.” Id. The application at issue was a divisional of the application that matured into one of the double patenting references, assigned to company B. Id. at 938. Therefore, the Court found that neither the inventors nor the assignees could give the undertaking that any patent granted on the divisional application, assigned to company B, would be commonly owned with the patent assigned to company A. Id. at 944. This investigation, however, does not involve patents assigned to different companies and complainants are able to comply with 37 § C.F.R. 1.321(b).<sup>20</sup>

E. Derivation

Respondents argued that the inventors of the ‘276 patent, John D. Scott and Rachel A. Steven (aka Spooncer), derived the invention of claim 1 of the ‘276 patent from prior work done at Imperial Chemical Industries PLC (ICI) in 1980 and 1982. In support of the allegation of derivation, respondents pointed to references RX-286C and RX-91C. Respondents argued that those ICI references are enabling prior art and that Scott and Spooncer knew of and accessed that earlier ICI work. (RBr at 23-31; RRBr at 28-34.)

Complainants argued that the ICI documents relied on by respondents, RX-286C and RX-

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<sup>20</sup> Now 37 C.F.R. § 1.321(C).



91C, do not include a complete, enabling conception of the claimed invention in issue; that Scott and Spooncer did not derive the invention of claim 1 of the '276 patent from those earlier ICI references; and that respondents misinterpreted the law of derivation under 35 U.S.C. § 102(f). (CBr at 70-75; CRBr at 9-19.)

The staff agreed with complainants that respondents failed to prove by clear and convincing evidence that either inventor was aware of the disclosure of the references respondents rely on. (SRBr at 15-16.) The staff also argued that complainants presented evidence that said references do not enable the invention of claim 1 of the '276 patent. (SRBr at 16-17.)

A person is not entitled to a patent if “he did not himself invent the subject matter sought to be patented.” 35 U.S.C. § 102(f). The law of derivation under section 102(f) requires not only that respondents clearly and convincingly establish 1) prior conception of the invention by another, but also 2) that such conception was communicated to an inventor of the patent at issue. See Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1576 (Fed. Cir. 1997) (Gambro). As stated previously, “[c]onception is the formation in the mind . . . of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice,” Hybritech, 802 F.2d at 1376, and “it must be proven by evidence showing what [has been] disclosed to others and what that disclosure means to one of ordinary skill in the art,” Jolley, 308 F.3d at 1321. With respect to communication of such conception, the key is that the communication must be sufficient to enable one of ordinary skill in the art to construct and successfully operate the patented invention; and that a communication that merely renders the

invention obvious is not sufficient for purposes of 102(f).<sup>21</sup> Id. at 1578; see also Brand v. Miller, 487 F.3d 862, 869-70 (Fed. Cir. 2007).

The parties agreed that reference RX-286C is a 1980 ICI report entitled, {

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<sup>21</sup> Respondents relied on New England Braiding Co. v. A.W. Chesterton Co., 970 F.2d 878, 883 (Fed. Cir. 1992) for the proposition that: “To invalidate a patent for derivation of invention, a party must demonstrate that the named inventor in the patent acquired knowledge of the claimed invention from another, or at least so much of the claimed invention as would have made it obvious to one of ordinary skill in the art.” (RBr at 24.)

However, in Gambro, the Federal Circuit made clear that this is not the test for derivation pursuant to section 102(f). 110 F.3d at 1577-78. The Court stated, “This dictum did not in fact incorporate a determination of obviousness into a Section 102(f) analysis. Indeed, this court in New England Braiding did not apply such a test.” Id. at 1578. The Court stated further that, “The key issue [in New England Braiding] was a credibility determination between the witnesses for the two parties. The sufficiency of the communication, particularly whether the invention was obvious in light of such disclosure, was not at issue. Thus, New England Braiding did not incorporate an obviousness test into the § 102(f) analysis.” Id.



} Thus, the process described in reference RX-286C required further  
work to obtain the desired results.

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(RX-286C at INE0295963.)

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<sup>23</sup> {

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} The administrative law judge finds nothing in RX-286C to suggest that any A133a used for reaction (2), i.e., the conversion of A133a to A134a, was A133a generated in reaction zone (1), as claimed in claim 1 of the '276 patent. The administrative law judge also finds nothing in RX-286C to suggest that, remaining (unconverted) A133a generated by reaction of trichlorethylene to A133a is recycled for further reaction with hydrogen fluoride, as claimed in claim 1 of the '276 patent.

Based on the foregoing, the administrative law judge finds that respondents have not

established, by clear and convincing evidence, that one skilled in the art would have been capable, without undue experimentation, of practicing the invention of claim 1 of the '276 patent based on the disclosure of reference RX-286C.

The parties agreed that reference RX-91C is a 1982 ICI report entitled, {

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} The administrative law

judge further finds nothing in RX-91C to suggest that, after the completion of reaction (2), any remaining (unconverted) A133a generated by reaction (1) in RX-91C is recycled for further reaction with hydrogen fluoride, as claimed in claim 1 of the '276 patent.

Based on the foregoing, the administrative law judge finds that respondents have not established, by clear and convincing evidence, that one skilled in the art would have been capable, without undue experimentation, of practicing the invention of claim 1 of the '276 patent based on the disclosure of reference RX-91C.

Moreover, even assuming arguendo that RX-286C and/or RX-91C disclose the elements of claim 1 of the '276 patent, as argued by respondents, which the administrative law judge has

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<sup>25</sup> RX-90C is a document prepared by inventor Spooncer in January 1988, which refers to work done at ICI in the early 1980s.

found supra that they do not; derivation requires that an inventor have knowledge of RX-286C and/or RX-91C and the ability to complete and operate his or her invention as a result. See Gambro supra.

Complainants argued that respondents produced no evidence that either of the inventors Scott or Spooncer had read, or was aware of, references RX-286C or RX-91C. (CPFF VII.846-47, 858-59.) The staff agreed. (SRBr at 15-16.)

Reference RX-286C's date of issue is September 3, 1980, some ten years prior to complainants' alleged date of conception in the United States. (RX-286C at INE0295952.) Reference RX-91C's date of issue is March 18, 1982, almost a decade prior to complainants' alleged date of conception in the United States. (RX-286C at INE0295952.) The front of each reference, which are stamped "Category C Report, (Company Secret), Not to be copied except by a Reports Centre" and "Category B Report, (Confidential), Not to be copied except by a Reports Centre," indicates that neither reference was meant to be distributed or shared with anyone other than certain individuals within ICI. (RX-286C at INE0295952; RX-91C at INE0296235.) Neither Scott nor Spooncer is listed as an author, approver, or recipient of either of said references. (RX-286C at INE0295952; RX-91C at INE0296235.) In addition, each inventor testified that he or she was not involved with the ICI research in the early 1980s and that, at the time of their invention, he or she was not aware of the work reported in either RX-286C or RX-91C. (JX-35C at 34-35, 148-149; JX-36C at 57-58 62-63, 66.) Inventor Scott specifically testified that he could not remember reviewing work done at ICI in the early 1980s regarding a process for making A134a. (JX-36C at 63:7-13.) In addition, inventor Spooncer did not specifically reference RX-286C or RX-91C in her 1988 report. (RX-90C.) And, finally, Dr.

Robinson, who joined the fluorochemicals team at ICI in February 1988 (Tr. at 99) and who worked with inventor Scott in 1989 and 1990 researching a process for the conversion of A133a to A134a, testified that he was not familiar with reference RX-286C, (Robinson, Tr. at 187, 197, 208), or reference RX-91C, (Robinson, Tr. at 176), and not involved with work done at ICI in 1988. (Robinson, Tr. at 171.)

Respondents did not dispute that neither inventor was involved in the work that took place in the early 1980s. (RFF VI.25, 44.) However, respondents alleged that, prior to beginning their own work on a process for making A134a (1,1,1,2-tetrafluoroethane), both inventors of the '276 patent were aware of the work reported in references RX-286C and RX-91C. (RPF VI.25, 30, 44.) In support, respondents alleged that inventor Scott testified that "he would have as a scientist reviewed the early work done at ICI in connection with his project of developing a 1,1,1,2-tetrafluoroethane process." (RPF VI.2.) Respondents also made reference to inventor Spooncer's January 1988 report, (RX-90), and the testimony of Robinson that RX-286C was available as a reference at ICI in 1989 and 1990. (Robinson, Tr. at 187:8-11.) However, "mere proof of motive and opportunity (e.g., access) is not sufficient to carry the burden of proving derivation." See Hedgewick v. Akers, 497 F.2d 905, 908 (C.C.P.A. 1974). In addition, a party asserting invalidity under section 102(f) cannot meet its burden of proof with evidence that merely supports an "inference" that the alleged prior conception was communicated to the inventor. See id.; see also Maxwell v. Kmart Corp. 880 F.Supp. 1323 (D. Minn. 1995). Moreover, assuming arguendo that either of inventors Scott and Spooncer were aware of RX-286C and RX-91C, which the administrative law judge has found, supra, that they were not, awareness of a disclosure in a reference is not the same as being enabled by such reference. The

question here is not whether the inventors knew of the references from which they allegedly derived their invention, i.e., RX-286C and RX-91C, but whether they, as persons of ordinary skill in the art, had knowledge of those references such that they had possession of the invention claimed in claim 1 of the '276 patent. The administrative law judge has found, supra, that respondents' evidence fails to support a conclusion that any communication about RX-286C or RX-91C to inventors Scott or Spooncer, assuming arguendo there was a communication, constituted a complete and enabling disclosure of the invention claimed in claim 1 of the '276 patent.

Based on the foregoing, the administrative law judge finds that respondents have not established, by clear and convincing evidence, that inventors Scott and Spooncer derived the invention of claim 1 of the '276 patent from references RX-286C and/or RX-91C.

#### IX. Enforceability

In support of their allegations that the '276 patent is unenforceable, respondents argued that there was inequitable conduct during prosecution of the patent based on: (1) ICI's purported "suppression of life saving chemical formulas for refrigerants that might have saved the ozone layer;" (2) the "resurrection of those formulas years later when worldwide outrage when the [sic] Montreal Protocol outed the manufacturers;" and (3) purportedly "false sworn claims to inventorship . . ." (RBr at 96.) Respondents also argued that ICI and its attorneys committed inequitable conduct during the prosecution of the '551 application (issued as the '107 patent) and that the '276 patent "is infected with the inequitable conduct during prosecution of the parent applications." (RBr at 98-102.)

Complainants argued that respondents have failed to prove that the '276 patent is



unenforceable. (CRBr at 62-64.)

The staff argued that no intentional misrepresentations or omissions of material fact have been established in the procuring of the '276 patent or in prosecuting the applications upon which the '276 patent is based. The staff argued that it, complainants, and this administrative law judge all agreed that the evidence respondents pointed to in support of their fraud allegations in respondents' Motion No. 623-13 did not support a finding of intent to deceive the Patent Office, citing Order No. 13 which denied respondents' Motion No. 623-13 to compel production, inter alia, under the crime-fraud exception. The staff then argued that, for the same reasons laid out in the staff's opposition to Motion No. 623-13, the evidence here does not show that the applicants for the '276 patent misrepresented or omitted any material information in the prosecution of the '276 patent or any of the applications upon which it is based, nor that any such alleged omissions or misrepresentations were done intentionally. Therefore, the staff argued that respondents have not established that the applicants for the '276 patent committed inequitable conduct or fraud in procuring the '276 patent or in prosecuting the applications upon which it is based. (SBr at 56.)

Patent applicants have a duty to prosecute patent applications in the PTO with candor, good faith, and honesty. 37 C.F.R. § 1.56(a) (2004); Molins PLC v. Textron, Inc., 48 F.3d 1172, 1178 (Fed. Cir. 1995) (Molins). A breach of this duty may constitute inequitable conduct, which can arise from a failure to disclose information material to patentability, coupled with an intent to deceive the United States Patent & Trademark Office (PTO). M. Eagles Tool Warehouse, Inc. v. Fisher Tooling Co., Inc., 439 F.3d 1335, 1339-40 (Fed. Cir. 2006) (Eagles).

A party alleging inequitable conduct based on a failure to disclose prior art must offer

clear and convincing proof of: (1) the materiality of the prior art; (2) knowledge chargeable to the patent applicant of that prior art and of its materiality; and (3) the applicant's failure to disclose the prior art, coupled with an intent to mislead the PTO. Molins, 48 F.3d at 1178 (citing FMC Corp. v. Manitowoc Co., 835 F.2d 1411, 1415 n.8 (Fed. Cir. 1987) (FMC)); see also Bruno Independent Living Aids, Inc. v. Acorn Mobility Servs. Ltd., 394 F.3d 1348, 1351 (Fed. Cir. 2005) (Bruno). Moreover, these elements must be independently established by clear and convincing evidence. Eagles, 439 F.3d at 1340 (citing J.P. Stevens & Co. v. Lex Tex Ltd., 747 F.2d 1553, 1559 (Fed. Cir. 1984)); see also Manville Sales Corp. v. Paramount Sys., Inc., 917 F.2d 544, 552 (Fed. Cir. 1990) ("Materiality does not presume intent, which is a separate and essential component of inequitable conduct.").

If both materiality and intent are established by clear and convincing evidence, the court applies a balancing test, in light of all the circumstances, to determine "whether the applicant's conduct is so culpable that the patent should not be enforced." Molins, 48 F.3d at 1178 (citing LaBounty Mfg., Inc. v. U.S.I.T.C., 958 F.2d 1066, 1070 (Fed. Cir. 1992)). The less material the omission or the misrepresentation, the higher the level of intent required to establish inequitable conduct, and vice versa. McKesson Information Solutions, Inc. v. Bridge Med. Inc., 487 F.3d 897, 913 (Fed. Cir. 2007) (McKesson).

Information is material if (A) it is not cumulative of information already of record or being made of record in the application, and (B) it either (1) establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim or (2) refutes, or is inconsistent with, a position the applicant takes in opposing an argument of unpatentability relied on by the PTO. 37 C.F.R. § 1.56(b); Bruno, 394 F.3d at 1352 ("In



evaluating materiality, we have consistently referred to the definition provided in 37 C.F.R. § 1.56, by which the PTO has promulgated the duty of disclosure.”); cf. Molins, 48 F.3d at 1179 (“Information is ‘material’ when there is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application to issue as a patent.”)

Failure to disclose a reference that is cumulative of other references does not meet the threshold of materiality that is predicate to a holding of inequitable conduct. McKesson 487 F.3d at 913; Molins, 48 F.3d at 1179 (“If the information allegedly withheld is not as pertinent as that considered by the examiner, or is merely cumulative to that considered by the examiner, such information is not material.”).

Deceptive intent requires proof that the person accused of inequitable conduct knew of a particular reference and knew that it was material. FMC, 835 F.2d at 1415; Eli Lilly & Co. v. Zenith Goldline Pharms., Inc., 471 F.3d 1369, 1382 (Fed. Cir. 2006) (Eli Lilly) (“In a case involving an omission of a material reference to the PTO, the record must contain clear and convincing evidence that the applicant made a deliberate decision to withhold a known material reference.”). If the applicant did not, in good faith, believe a reference to be material, there is no inequitable conduct for applicant’s failure to disclose it to the Examiner. Allied Colloid Inc. v. Am. Cyanamid Co., 64 F.3d 1570, 1578 (Fed. Cir. 1995) (“It is not inequitable conduct to omit telling the patent examiner information that the applicant in good faith believes is not material to patentability.”).

Intent may be inferred from the facts and circumstances, but “[i]ntent to deceive can not be inferred solely from the fact that information was not disclosed; there must be a factual basis

for a finding of deceptive intent.” Eagles, 439 F.3d at 1340 (citing Herbert v. Lisle Corp., 99 F.3d 1109, 1116 (Fed. Cir. 1996)); see Hupp v. Siroflex of Am., Inc., 122 F.3d 1456, 1466 (Fed. Cir. 1997) (“there must be sufficient evidence to support such inference.”). Intent to deceive “cannot be inferred simply from the decision to withhold the reference where the reasons given for the withholding are plausible.” Eli Lilly, 471 F.3d at 1382. Indeed, even “finding that particular conduct amounts to ‘gross negligence’ does not itself justify an inference of intent to deceive.” Kingsdown Med. Consultants v. Hollister Inc., 863 F.2d 867, 876 (Fed. Cir. 1988) (en banc). Rather, “the involved conduct, viewed in light of all the evidence, including evidence indicative of good faith, must indicate sufficient culpability to require a finding of intent to deceive.” Id.

Respondents have asserted that certain representations of the applicants for the ‘276 patent were deceptive because “priority” was “lost” by the filing of the application for the ‘107 patent on September 5, 1991, which was outside the 12-month window of § 119<sup>26</sup> following the filing of the GB Application (on March 29, 1990) upon which it was based. However, the fact that the filing date of the application leading to the ‘107 patent was after the March 29, 1991 deadline for § 119 purposes is not determinative of all aspects of the priority issue, and is in no way indicative of deceptive intent. The administrative law judge finds that it was clear on the face of the application leading to the ‘107 patent, and on the patent as issued, that the application was not filed in the 12-month window provided for by § 119. (Compare RX-30 (GB Application,

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<sup>26</sup> In relevant part, 35 U.S.C. § 119 provides that priority for a U.S. application can reach back to a foreign application for the same invention “if the application in this country is filed within twelve months from the earliest date on which such foreign application was filed ....” 35 U.S.C. § 119(a). Further, to obtain this right of priority, a claim must be filed with the PTO “identifying the foreign application by specifying the application number on that foreign application, the intellectual property authority or country in or for which the application was filed, and the date of filing the application ....” 35 U.S.C. § 119(b).

filed March 29, 1990) with JX-12 ('107 patent, filed September 5, 1991) and JX-24 ('107 patent file history)). Hence, any failure to point out to the Examiner that direct § 119 priority back to the GB Application had been lost with regard to the application leading to the '107 patent was not material because this information was clear on the face of the application in the form of the filing date. Moreover, the application for the '107 patent was filed on September 5, 1991, as a continuation-in-part of U.S. application 07/676,703 (the '703 application), indicating that new matter, which would not be entitled to an earlier filing date than its own, was included. As a result, the administrative law judge finds it would be clear to the Examiner that the priority date based on the earlier application would apply only to common matter, not the new matter of the continuation-in-part. (See JX-42C (Kokulis deposition testimony) at 100-102). Also, the statement of priority is not demonstrably false, as there did exist common subject matter between the GB Application and the disclosures of the '703 application (which was filed on March 29, 1991, within 12 months of the GB Application) and the subsequent applications in the priority chain, which consisted of a series of continuation and continuation-in-part applications. (See JX-42C (Kokulis deposition testimony) at 99-101; chart supra.) The administrative law judge finds nothing improper in claiming priority to the GB Application in the subsequent applications, even if only certain claims could have the benefit of the earlier filing date. See, e.g., Purdue Pharma LP v. Boehringer Ingelheim GMBH, 237 F.3d 1359, 1367 (Fed. Cir. 2001) (declining to find inequitable conduct and calling it "logical" to claim priority where the specification of the later patent is supported by the earlier patent, even if the claims of the later patent are not entitled to the earlier priority date). Moreover, Kokulis explained (as confirmed by the Federal Circuit in an



interference proceeding on a related patent<sup>27</sup>) that the invention of the GB Application had priority over a Koyama reference. (See JX-42C (Kokulis deposition testimony) at 104-08.) Thus, the administrative law judge finds no indication of any material omission or misrepresentation with regard to the statements in the prosecution histories regarding the GB Application.

In addition, Kokulis confirmed that all of the related applications in the chart (supra) share common subject matter with the original GB Application; that the representations made during prosecution with regard to priority were accurate; and that there was nothing improper in the declarations identifying the GB Application as the priority document. (See JX-42C (Kokulis deposition testimony) at 99, 104-107.)<sup>28</sup> Thus, the administrative law judge finds that Kokulis articulated a reasonable justification for having made the referenced statements regarding the GB Application, despite the fact that he recognized that claims to the “reverse sequence” process via the application for the ‘107 patent were not filed within 12 months of the GB Application. See, e.g., Gloves, Inv. No. 337-TA-608/612, Order No. 84 at 15 (May 14, 2008) (citing C.R. Bard, 157 F.3d at 1365 (“Deceptive intent is not inferred simply because information was in existence that was not presented to the examiner; and indeed, it is notable that in the usual course of patent prosecution many choices are made, recognizing the complexity of inventions, the virtually

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<sup>27</sup> Respondents have acknowledged that the Federal Circuit awarded priority to the inventors of the patent-in-suit over Koyama. (See RPre at 50). Specifically, the interference related to the ‘105 patent (see chart supra) and the count of the ‘105 patent that was the subject of the interference covered both the forward and reverse processes. See Scott, 281 F.3d at 1246; JX-42C (Kokulis deposition testimony) at 107.

<sup>28</sup> Respondents’ counsel also deposed Sheehan, a U.S. patent attorney who worked with Kokulis on some of the relevant prosecution. The administrative law judge finds nothing in Sheehan’s deposition suggesting fraudulent behavior during the prosecution of the relevant patents. (See JX-43C (Sheehan deposition testimony).)

unlimited sources of information, and the burdens of patent examination.”)).

Respondents have argued that the PTO Rules “required that a newly executed oath or declaration must be filed in any continuation-in-part application.” (RPre at 329.) However, respondents’ own briefing acknowledges that a new declaration was filed with an amendment. Id. at 329-30. There is nothing in the record to indicate that a declaration filed after the initial filing is not sufficient under the PTO rules. Moreover, inventor Scott testified that he signed each of the declarations in good faith. (See JX-36C (Scott deposition testimony) at 142.)

Based on the foregoing, the administrative law judge finds that respondents have not established, by clear and convincing evidence, that the ‘276 patent is unenforceable due to any inequitable conduct.

#### X. Domestic Industry

Respondents argued that complainants practice {

} and that given that claim 1 of the ‘276 patent is limited to a forward process, complainants cannot satisfy the technical prong for their domestic industry requirement. (RBr at 102.)

Complainants argued that they have satisfied the technical prong of the domestic industry. (CBr at 39-45.)

The staff argued that the evidence shows that, under the proper claim construction, complainants’ process for the manufacture of 1,1,1,2-tetrafluoroethane practiced at their St. Gabriel, Louisiana plant, like respondents’ process, meets all of the limitations of the asserted



claim and thus, complainants meet the technical prong of the domestic industry requirement for the '276 patent. (SBr at 65-67.)

A violation of Section 337 can be found “only if an industry in the United States, relating to the articles protected by the patent ... exists or is in the process of being established.” Certain Light Emitting Diodes and Prods. Containing Same, Inv. No. 337-TA-512, Order No. 20 at 4 (Nov. 10, 2004). Whether a domestic industry exists is measured at the time the complaint is filed. See Certain Combination Motor and Transmission Sys. and Devices Used Therein, and Prods. Containing Same, Inv. No. 337-TA-561, Initial Determination at 134 (Feb. 13, 2007); Bally/Midway Mfg. Co. v. U.S.I.T.C., 714 F.2d 1117, 1121-22 (Fed. Cir. 1983).

The domestic industry requirement includes both a technical prong and an economic prong. See Alloc. Inc. v. U.S.I.T.C., 342 F.3d 1361, 1375 (Fed. Cir. 2003). To determine whether an industry relates to the protected articles (the technical prong of the domestic industry requirement), the Commission examines whether the Complainant manufactures products according to the process covered by the asserted claims. See Osram GmbH v. U.S.I.T.C., 505 F.3d 1351, 1359 (Fed. Cir. 2007), see also Certain Audio Digital-to-Analog Converters and Prods. Containing Same, Inv. No. 337-TA-499, Final Initial and Recommended Determinations at 173-186 (Nov. 15, 2004); Certain Stringed Musical Instruments and Components Thereof, Inv. No. 337-TA-586, Initial Determination at 12 (Dec. 3, 2007).

A. Complainants' Process

The private parties stipulated as to complainants' process. (SX-2C.)<sup>29</sup> The staff has no

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<sup>29</sup> See SX-2C (Stipulation on Complainants' Process); JX-15C (INEOS process flow diagram for St. Gabriel plant); CDX-2C (same); CDX-3C (simplified block flow process diagram for St. Gabriel plant); Pacillo, Hearing Tr. at 304:10-324:5 (August 18, 2008); CX-270C

objection to said stipulation. Said stipulation reads as follows:

{

}

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at CX-270C.00003 (1/25/1990 "scheme 1" flow sheet for St. Gabriel plant).

{

}

{

}

}

B. Complainants' Process And Technical Prong

The administrative law judge finds that INEOS has satisfied the technical prong of the domestic industry requirement, as its process for the manufacture of 1,1,1,2-tetrafluoroethane in St. Gabriel, Louisiana literally practices each element of claim 1 of the '276 patent. With respect to the initial language of said claim 1, viz., "In a method for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones," INEOS' process is a single, integrated process for the production of 1,1,1,2-tetrafluoroethane in two separate reaction zones. (SX-2C at ¶¶ 1-2; JX-15C, Manzer, Tr. at 455.) The product of INEOS' process is 1,1,1,2-tetrafluoroethane. (Id.) {

}



{

}

}

Based on the foregoing, the administrative law judge finds that INEOS has demonstrated that the INEOS process literally practices each and every element of claim 1 of the '276 patent and hence satisfies the technical prong of the domestic industry requirement.

#### XI. Remedy

In the event that the administrative law judge finds that Sinochem is in violation of section 337, INEOS requests that the Commission enter a permanent limited exclusion order under 19 U.S.C. § 1337(d) and cease and desist orders under 19 U.S.C. § 1337(f). It is argued that each of the respondents in this investigation is owned by Sinochem Corporation; that because the respondents are subsidiaries of corporate parent Sinochem Corporation, which controls many other subsidiaries and related companies that manufacture or deal in 1,1,1,2-tetrafluoroethane, said limited exclusion order should apply not only to the Sinochem

respondents named herein but also to their affiliated companies, parents, subsidiaries, licensees, contractors, trading companies, other related business entities and successors or assigns. (CBr at 94.)

Respondents do not challenge the issuance of a limited exclusion order, should a violation be found, other than to represent that it is not disputed that any exclusion order should not include downstream products. (RRBr at 91.) It is argued that no cease and desist order is warranted because complainants have failed to show any commercially significant U.S. inventory, or even any inventory at all from the new process. (RRBr at 81.)

The staff agrees with INEOS that if claim 1 of the '276 patent is found to be valid and infringed, a limited exclusion order as to respondents and their related companies should issue. The staff argued that it is not aware of any commercially significant inventories in the United States of 1,1,1,2-tetrafluoroethane made by Sinochem's "new process" (the process at issue) and therefore, a cease and desist order should not issue. (SBr at 69-70.)

The Commission "has broad discretion in selecting the form, scope, and extent of the remedy in Section 337 proceedings." Certain Integrated Circuit Telecommunication Chips, Inv. No. 337-TA-337, Commission Opinion at 21 (August 3, 1993). Pursuant to its statutory authority found in 19 U.S.C. § 1337(d), the Commission may exclude from importation goods and products that form the basis for a finding of a violation of Section 337 which includes products made from processes that have been found to infringe the patents-in-issue directly, contributorily or by inducement after importation has occurred. Certain Flash Memory Circuits, Inv. No. 337-TA-382, Commission Opinion at 26 (June 26, 1997) ("The Commission has the authority to enter an exclusion order, a cease and desist order, or both."). Indeed, absent special

circumstances, the statute requires such exclusion:

If the Commission determines . . . that there is a violation of this section, it shall direct that the articles concerned . . . be excluded from entry into the United States, unless, after considering the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers, it finds that such articles should not be excluded from entry.

19 U.S.C. § 1337(d) (emphasis added). Hence, a remedy excluding respondents' products made from any infringing processes from entry is mandatory if a violation of Section 337 is found, unless the Commission finds that public interest factors militate against such remedy.

“The Commission also has the authority to issue cease and desist orders where a respondent has a sufficient inventory of infringing goods in the United States.” Certain NAND Flash Memory Circuits, Inv. No. 337-TA-526, Initial Determination, 2005 ITC LEXIS 859, at \*255 (Oct. 19, 2005) (citing Certain Plastic Encapsulated Integrated Circuits, Inv. No. 337-TA-315, U.S.I.T.C. Pub. No. 2574, Commission Opinion at 37 (November 1992)).

In the event a violation is found, the administrative law judge recommends the issuance of a limited exclusion order prohibiting the importation into the United States of products made by the infringing process “that are manufactured abroad or imported by or on behalf of [the respondents], or any of their affiliated companies, parents, subsidiaries, or other related business entities, or their successors or assigns.” See Certain Laser Bar Code Scanners and Scan Engines, Components Thereof, and Prods. Containing Same, Inv. No. 337-TA-551, Limited Exclusion Order at ¶ 1 (May 30, 2007).

With respect to the issuance of a cease and desist order in this investigation, INEOS asserted that Sinochem recently purchased and imported into the United States more than { }

kilograms of 1,1,1,2-tetrafluoroethane made using the accused infringing process, an amount worth almost {            }. INEOS argued that, based on the amount of this shipment, it is reasonable to infer that some of this 1,1,1,2-tetrafluoroethane represents existing inventory. INEOS further argued that the evidence shows that Sinochem continues to maintain possession of said shipment because, pursuant to Commission rule 210.27(c), Sinochem was required to supplement its responses to at least Interrogatory Nos. 5, 27, 52, 74, 83, and 85 (regarding sales and customer information) prior to the close of the evidentiary record if it had sold any 1,1,1,2-tetrafluoroethane. Sinochem did not supplement those responses. Thus, according to INEOS, it can be “inferred” that said imported 1,1,1,2- tetrafluoroethane must still be in the possession of Sinochem, and that {            } kilograms constitutes a commercially significant inventory in the United States. (CRBr at 68.)

The administrative law judge has examined Interrogatory Nos. 5, 27, 52, 74, 83 and 85.<sup>30</sup> None of said interrogatories relate to respondents’ “new process;” more specifically, none even relate to possible United States inventories of “R-134a” made by the “old process.” Complainants have the burden of establishing that a sufficient inventory of goods made by the accused new process exists in the United States. The administrative law judge finds that complainants, based on the present record, have not met their burden. Hence, he does not recommend the issuance of any cease and desist order.

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<sup>30</sup> INEOS’s Interrogatory Nos. 52, 74, 83 and 85 were included in their Fourth Set Of Interrogatories, which were served on May 22, 2008.



XII. Bond

With respect to a need for any bond in this investigation, the parties have stipulated to the following:

U.S. Patent No. 5,559,276 (“the ‘276 patent” or “patent-in Suit”) relates to a method for the manufacture of the chemical 1,1,1,2-tetrafluoroethane, which is a hydrofluorocarbon also known as R-134a or HFC-134a. 1,1,1,2-tetrafluoroethane is used primarily as a refrigerant. It has become the most widely used replacement for R-12 (or dichlorodifluoroethane, often called Freon), which is prohibited in many countries by the Montreal Protocol on Substances that Deplete the Ozone Layer.

(SX-3) (emphasis added.)

Complainants argued that during the 60-day period following the Commission’s issuance of an exclusion order, respondents should be required to post a bond equal to 100 percent of entered value. (CBr at 96.)

The staff argued that because there is no reasonable royalty rate information and the pricing evidence to date indicates a wide variability to the pricing among the parties’ products, it will be difficult to calculate an accurate bond based on price differentials. Thus, the staff argued that the bond should be set at 100% of the entered value of the allegedly “infringing products” imported during the Presidential review period. (SBr at 71.)

Respondents argued that complainants have made no showing of a need for protection during the 60-day Presidential review period. (RBr at 103.) Respondents argued that their Rule 30(b)(c) witness testified that {

} that Geosits testified that {

} that an additional witness testified that { }



{ } and that even a small variation in market pricing does not justify a bond in this investigation. However, it was also argued that “[a]t best, a ten percent bond is appropriate”. (RRBr at 91.)

In contrast to the evidence cited by the respondents are JX-28C (deposition testimony of respondents’ witness Kan Wu) at 63, in which Mr. Wu states that {

} and JX-30C (deposition testimony of respondents’ witness Fangbin Lu) at 36 and 104, in which Mr. Lu testifies that

{ } In addition, there is evidence to show that, from 2005 to 2008, Sinochem’s 1,1,1,2-tetrafluoroethane was sold in the United States for prices ranging from { } (CX-266C at SINO0141384; CX-268C at SINO0141151.)

Section 337(j)(3) provides for the entry of infringing articles upon the payment of a bond during the sixty-day Presidential review period. 19 U.S.C. § 1337(j)(3). The bond is to be set at a level sufficient to “offset any competitive advantage resulting from the unfair method of competition or unfair act enjoyed by persons benefiting from the importation.” Certain Dynamic Random Access Memories, Components Thereof and Prods. Containing Same, Inv. No. 337-TA-242, Commission Opinion, USITC Pub. No. 2034, 1987 WL 450856 (U.S.I.T.C.) at \*38 (1987). When reliable price information is available, the Commission has set the bond by eliminating the price differential between the domestic and the imported infringing product. Certain Digital Satellite Sys. (DSS) Receivers and Components Thereof, Inv. No. 337-TA-392, Final Initial and Recommended Determination, USITC Pub. No. 3418, 2001 WL 535427

(U.S.I.T.C.) at \*336 (April 2001). Where reliable price information is not available, however, Commission precedent establishes that the bond should be set at 100%. Certain Semiconductor Memory Devices and Prods. Containing Same, ITC Inv. No. 337-TA-414, Recommended Determination, 1999 WL 1267282 (U.S.I.T.C.) at \*6 (December 13, 1999); Certain Flash Memory Circuits and Prods. Containing Same, Inv. No. 337-TA-382, USITC Pub. 3046, Commission Opinion at 26-27 (July 1997).

Based on the foregoing, the administrative law judge finds that the record supports a need for a bond should a violation be found. He further finds that such bond, if necessary, should be set at 100% of the entered value of the products made using the infringing "new" process and imported during the Presidential review period.

### XIII. Additional Findings

1. Complainants in this investigation are INEOS Fluor Holdings Limited, INEOS Fluor Limited, and INEOS Fluor Americas LLC (collectively INEOS or complainants). (Sec. Am. Comp. 1.)
2. INEOS Fluor Holdings Limited is the assignee of the asserted '276 patent. (Sec. Am. Comp. 2.)
3. INEOS Fluor Holdings Limited is a privately held English corporation having its principal place of business at The Heath, Runcorn, Cheshire, WA74QX, United Kingdom. (Sec. Am. Comp. 5.)
4. INEOS Fluor Holdings Limited is owned by INEOS Group Limited located at Hawkslease, Chapel Lane Lyndhurst, Hampshire, SO437FG, United Kingdom. (Sec. Am. Comp. 7.)

5. INEOS Fluor Limited is a privately held English corporation having its principal place of business at The Heath, Runcorn, Chesire, WA74QX, United Kingdom. (Sec. Am. Comp. 8.)

6. INEOS Fluor Limited is owned by INEOS Group Limited located in Hawkslease, Chapel Lane Lyndhurst, Hampshire, SO437FG, United Kingdom. (Sec. Am. Comp. 10.)

7. INEOS Fluor Americas LLC is a Louisiana limited-liability corporation having its principal place of business at 4990 B ICI Road, St. Gabriel, Louisiana 70776. (Sec. Am. Comp. 11.)

8. INEOS became the successor to the ICI Chemicals and Polymers "KLEA" business. (Geosits, Tr. at 43:17-18.)

9. "KLEA" is INEOS' trademark for non-ozone depleting refrigerants such as 1,1,1,2-tetrafluoroethane. (Geosits, Tr. at 44:4-6.)

10. INEOS Fluor Americas LLC is headquartered in St. Gabriel, Louisiana and is a subsidiary of INEOS Holdings Limited. (Geosits, Tr. at 43:19-22.)

11. INEOS began manufacturing 1,1,1,2-tetrafluoroethane in its St. Gabriel facility in late 1992, and has been selling it since that time. (Geosits, Tr. at 45-46.)

12. Respondents in this investigation are Sinochem Modern Environmental Protection Chemicals (Xi'an) Co., Ltd., Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd. Sinochem Ningbo Ltd. (Sinochem Nigbo), and Sinochem (U.S.A.) Inc. (collectively Sinochem or respondents). (Sec. Am. Compl. 17-37.)

13. Each of the respondents (or its parent) is owned by Sinochem Corporation, a Chinese state-owned company currently ranked on the Fortune Global 500 list of companies.

(JX-28C Wu Dep. 9:7-20; CX-88C.00008; CX-81C.00010, 00012, 00038.)

14. Sinochem Corporation, although not a named party, is a state-owned enterprise of China. (CX-81C.00010.)

15. Sinochem Corporation is owned by the China National Resources Council, which is a branch of the Chinese government. (JX-28C Wu Dep. 30-31.)

16. Sinochem Corporation controls or owns more than 90 subsidiaries or businesses worldwide. (CX-81C.00010.)

17. Sinochem Corporation is a potential sister company to thousands of companies owned or controlled by the government of China. (CX-81C.00010.)

18. Sinochem International Corporation is a subsidiary of Sinochem Corporation. (CX-081C.00011.)

19. { } is the { } of Sinochem Ningbo. (JX-28C Wu Dep. 9:7-20; CX-88C.00008; CX-81C.00010, 00012.)

20. Sinochem Ningbo trades or distributes 1,1,1,2-tetrafluoroethane and many other goods. (CX-081C.00012.)

21. Sinochem Taicang and Sinochem Xi'an manufacture some of the 1,1,1,2-tetrafluoroethane sold by Sinochem Ningbo. (JX-28C Wu Dep. 14:2-15:5.)

22. Sinochem Ningbo is a sister company of Sinochem Xi'an. (CX-081C.00012.)

23. { } of Sinochem Xi'an. (CX-99C.00008.)

24. Sinochem Xi'an started to produce 1,1,1,2-tetrafluoroethane in or around March 1999. (CX-94C.00002.)

25. Sinochem Taicang is {  
} (CX-81C.00038.)
26. Sinochem Xi'an { } (CX-81C.00010.)
27. Sinochem Europe Capital Corp., Ltd. {  
} (CX-81C.00038.)
28. Sinochem Ningbo { } (CX-81C.00015.)
29. { } of Sinochem Taicang. (CX-88C.00008.)
30. Sinochem USA and Sinochem Xi'an are sister companies. (JX-30C Lu Dep. 22-9.)
31. Sinochem USA and Sinochem Taicang are sister companies. (JX-30C Lu Dep.  
23:13-19.)
32. Sinochem USA and Sinochem Shanghai Corporation are sister companies.  
(JX-30C Lu Dep. 24:19-23.)
33. Sinochem USA is { } Sinochem American Holdings,  
Inc. (CX-88C.00008.)
34. Sinochem American Holdings, Inc. { } Sinochem  
Corporation. (CX-88C.00008.)
35. Sinochem American Holdings, Inc. is located at 1330 Post Oak Boulevard, Suite  
2500, Houston, TX 77056. (CX-88C.00008.)



## CONCLUSIONS OF LAW

1. The Commission has in personam jurisdiction and subject matter jurisdiction.
2. There has been an importation of products into the United States made using the accused “new” process.
3. Respondents’ accused “new process” literally infringes asserted claim 1 of the ‘276 patent.
4. Respondents have not established that claim 1 of the ‘276 patent is invalid based on any ground.
5. The ‘276 patent is enforceable.
6. Complainants have established that a domestic industry exists for the ‘276 patent.
7. Respondents have violated 19 U.S.C. § 1337.
8. If a violation is found, the record supports issuance of a limited exclusion order barring entry into the United States of products made using the infringing process. The record further supports the setting of a bond in the amount of 100 percent of entered value of any imported products made using the infringing process during the Presidential review period.

## ORDER

Based on the foregoing, and on the record as a whole, it is the administrative law judge’s Final Initial Determination that there is a violation of section 337 in the importation into the United States, sale for importation, and sale within the United States after importation of products made using the accused process. It is also the administrative law judge’s recommendation that, should a violation be found, a limited exclusion order should issue barring entry into the United States of products made using the infringing process, and that a bond should

be set in the amount of 100 percent of entered value of any products made using the infringing process during the Presidential review period.

The administrative law judge hereby CERTIFIES to the Commission his Final Initial and Recommended Determinations. The briefs of the parties filed with the Secretary are not certified since they are already in the Commission's possession in accordance with Commission rules.

Further it is ORDERED that:

1. In accordance with Commission rule 210.39, all material heretofore marked in camera because of business, financial and marketing data found by the administrative law judge to be cognizable as confidential business information under Commission rule 201.6(a), is to be given in camera treatment continuing after the date this investigation is terminated.

2. Counsel for the parties shall have in the hands of the administrative law judge those portions of the final initial and recommended determinations which contain bracketed confidential business information to be deleted from any public version of said determinations, no later than December 19, 2008. Any such bracketed version shall not be served via facsimile on the administrative law judge. If no such bracketed version is received from a party, it will mean that the party has no objection to removing the confidential status, in its entirety, from these initial and recommended determinations.

3. The initial determination portion of the Final Initial and Recommended Determinations, issued pursuant to Commission rules 210.42(a) and 210.42-46, shall become the determination of the Commission, unless the Commission, within that period, shall have ordered its review of certain issues therein or by order has changed the effective date of the initial determination portion. The recommended determination portion, issued pursuant to Commission

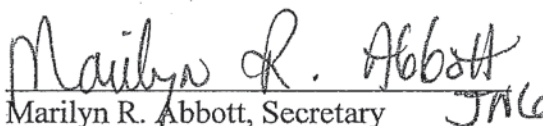
rule 210.42(a)(1)(ii), will be considered by the Commission in reaching a determination on remedy pursuant to Commission rule 210.50(a).

Paul J. Luckern (KAT)  
Paul J. Luckern  
Chief Administrative Law Judge

Issued: December 1, 2008

CERTIFICATE OF SERVICE

I, Marilyn R. Abbott, hereby certify that the attached **Public Version Final Initial and Recommended Determination** was served upon Heidi E. Strain, Esq., Commission Investigative Attorney, and the following parties via first class mail and air mail where necessary on February 23, 2009

  
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**CERTAIN R-134a COOLANT (OTHERWISE KNOWN  
AS 1,1,1,2-TETRAFLUOROETHANE)**

**Investigation No. 337-TA-623**

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