

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA

MAGISTRATE NO. 15-428 MJ

AFFIDAVIT IN SUPPORT OF A COMPLAINT AND ARREST WARRANT

I, Gregory W. Roth, being first duly sworn, hereby depose and state as follows:

INTRODUCTION AND AGENT BACKGROUND

1. I make this affidavit in support of an application for an arrest warrant and a complaint violations of Title 18, United States Code, Sections 1832 (Theft of Trade Secrets).
2. I am a Special Agent (SA) with the Federal Bureau of Investigation (FBI) and have been since 2014. I am currently assigned to the Pittsburgh Division of the FBI. In this capacity, I am charged with investigating possible violations of federal criminal law.
3. By virtue of my FBI employment, I perform and have performed a variety of investigative tasks, including functioning as a case agent on a broad range of criminal and counterintelligence cases. I have received training in the conduct of such investigations through extensive training and everyday work related to these types of investigations. The facts set forth in this affidavit are based on my personal knowledge, the knowledge obtained from other individuals, including other law enforcement personnel, communications with others who have personal knowledge of the events and circumstances described herein and information gained through my training and experience. Because this affidavit is submitted for the limited purpose of establishing probable cause in support of the application for a search warrant, this affidavit does not set forth each and every fact learned by me during the course of this investigation.
4. As set forth in more detail below, there is probable cause to believe that

Thomas RUKAVINA has violated Federal law. Title 18, United States Code, Section 1832

states:

Whoever, with intent to convert a trade secret, that is related to a product or service used in or intended for use in interstate or foreign commerce, to the economic benefit of anyone other than the owner thereof, and intending or knowing that the offense will injure any owner of that trade secret, knowingly-

- (1) Steals, or without authorization appropriates, takes, carries away, or conceals, or by fraud artifice, or deception obtains such information;
- (2) Without authorization copies, duplicates, sketches, draws, photographs, downloads, uploads, alters, destroys, photocopies, replicates, transmits, delivers, sends, mails, communicates, or conveys such information;
- (3) Receives, buys, or possesses such information, knowing the same to have been stolen or appropriated, obtained, or converted without authorization;
- (4) Attempts to commit any offense described in paragraphs (1) through (3); or
- (5) Conspires with one or more other persons to commit any offense described in paragraphs (1) through (3), and one or more of such persons do any act to effect the object of the conspiracy,

Shall, except as provided in subsection (b), be fined under this title or imprisoned not more than 10 years, or both.

E-mails to PPG Subcontractor by RUKAVINA

5. On February 6, 2015, a representative of PPG Industries Inc. (hereinafter "PPG")¹, contacted the FBI concerning a potential theft of PPG trade secrets. The trade secret at issue is the manufacturing specifications for windows which are made of synthetic plastics and used for high-speed transportation, such as airplanes (hereinafter "the trade secret"). This trade secret information is restricted within the company at PPG, is contained on documents marked as proprietary and confidential, and is protected by non-disclosure agreements signed by those PPG employees who have access to the trade secret.

¹ PPG is a global supplier of paints, coatings, optical products, specialty materials, glass and fiber glass which is based in Pittsburgh, PA.

6. According to this PPG representative, a sub-contractor of PPG who processes the windows described above (hereinafter “the sub-contractor”)² informed PPG that on or about February 5, 2015, a representative from the sub-contractor received an email from an email account identified here as “EMAIL ACCOUNT1.” In the email, an individual (hereinafter, “M.Z.”) who identified herself as a representative from a Chinese glass manufacturer (hereinafter “J.T.M.G. Co.”)³ solicited the sub-contractor to manufacture casting molds that would be used for high speed train windows. M.Z. noted in the email,

Actually, you're well recommended by our friend in US. Just following what we talked by telephone, hereafter you can find the pictures which we have found that you were the vendor for PPG project. These tooling are for casting plastics of polyurethane. My company [J.T.M.G.Co] in China has the similar project and we want to order the same molds from you company. Our project in China is mainly specialized in the windows for the high speed train. The molds will be in a great quantity in future. Now, we want order 5 sets per the picture with mold and cart together.

7. Attached to the email from EMAIL ACCOUNT1 was a photo of molds on a cart and a drawing of a metal mold.

8. In response to the above email, the sub-contractor representative sent an email to EMAIL ACCOUNT1 requesting more information about the molds M.Z. requested.

9. In response to the email sent to M.Z., the sub-contractor representative received an email from an email account identified here as “EMAIL ACCOUNT2” on February 13, 2015. EMAIL ACCOUNT2 belongs to Thomas RUKAVINA. In the February 13, 2015 email from EMAIL ACCOUNT2 to the sub-contractor, RUKAVINA identified himself as “Tom Rukavina, Sr. Research Associate, PPG Industries, Cheswick, PA 15204,”

² The sub-contractor is a precision machining and fabrication facility based in Leechburg, PA. Agents of the FBI have also spoken to representatives of the sub-contractor who have provided relevant e-mail correspondence incorporated in this Affidavit.

³ “J.T.M.G.Co.” is identified on its website as a glass company based in Jiangsu, China, which specializes in auto and special glass.

and stated he was the technical contact in the US for J.T.M.G.Co. and M.Z.. RUKAVINA noted in the email,

The size of the molds needed are different from those that [M.Z.] provided. PPG is transferring technology to [J.T.M.G.Co.] including the molds that you fabricated for us. [J.T.M.G.Co.] is currently building a production facility. The projected volumes are very high and will require a high number of molds of 4 different sizes. Hopefully you can help design and fabricate these molds. I can be reached at 412-[xxx-xxxx]. I am currently at home as I had hip replacement surgery a week ago.

10. On February 18, 2015, RUKAVINA sent another email from EMAIL ACCOUNT2 to the sub-contractor representative stating,

I was the project leader on the program but am a chemist by training. I have the drawings but if you have the records as to what you shipped to us last that is what we would want. I will send you the size of the glass molds that fit into the metal molds and look at the drawings in more detail. We are transferring production to [J.T.M.G.Co.] near Shanghai so either you can ship the molds and Carts to China, or to [M.Z.] in California and she can ship to China. [J.T.M.G.Co] will pay you directly.

11. On or about February 19, 2015, a PPG representative confirmed to law enforcement that RUKAVINA was not currently employed with PPG. However, RUKAVINA had retired from PPG on July 31, 2012, had access to the trade secret during his employment, and had signed an agreement not to take away or disclose company proprietary or confidential business information, such as the trade secret. The PPG representative also stated that PPG does not have an agreement with J.T.M.G.Co. to transfer any technology. Further, the PPG representative confirmed that the picture and drawing of the molds sent to the sub-contractor by M.Z. on February 5, 2015 were obtained from a proprietary PPG technical report pertaining to the trade secret, and that RUKAVINA, as a former employee, was not authorized to possess or transmit the document.

Search Warrant of EMAIL ACCOUNT2

12. On or about February 24, 2015, agents of the FBI obtained a search warrant which was authorized by the Honorable Robert C. Mitchell Magistrate Judge for the Western District of Pennsylvania, for EMAIL ACCOUNT2, belonging to RUKAVINA.

13. A review of the email communications pertaining to this matter yielded the following:

14. On or about March 2, 2013, RUKAVINA sent an email in response to an email translating questions from Chinese that came from an employee of J.T.M.G.Co. inquiring about RUKAVINA's relationship with PPG and his ability to share information he possesses from PPG. In the original email (written in Chinese), the J.T.M.G.Co. employee asks if Rukavina signed "any type of confidential agreement and/or non-competitive agreement with PPG" or whether "the technology used which will be used...violating [sic] PPG's IP." In response, RUKAVINA states, in part,:

... When you join and when you leave PPG you are forced to sign these documents. Of [sic] you followed these documents as written you could never work again. I was forced out but did not sue. I signed a document stating I would not sue. If I did not sign instead of \$100,000 in severance I would have gotten \$18,000. If PPG owns my brain for life then they should pay me 2 million per year to keep it!! I think I made my point!! ...

15. On or about February 22, 2014, RUKAVINA sent an email to an executive of J.T.M.G.Co. stating,

Attached is my work history/accomplishment. I will follow with 3 more emails: awards, press releases and program pictures. Not all of the programs but the most recent.

It is probably more than you need but I wanted to show you that I have very broad knowledge as I was one of the few at the PPG Glass Research Center that worked on projects with other scientists in other Divisions, I.E. Coatings and Resins R&D, Chemicals Group R&D, Fiber Glass R&D, and the Flat Glass Division.

My salary at PPG when I left was \$170,000 per year plus or minus \$10,000, depending on how well the Aerospace Division performed. In the last 5 years it was the top performing business in the company.

If possible I would like a signing bonus of \$80,000 as you will have access to all of PPG technology since 1947!! I am thinking of working for about 5 years but if things go well and I like working there it could be longer. I also have access to other ex-PPG employees, some of which have started their own companies and some retired. In particular Mr. [E.K.] who is an expert in aircraft window failure analysis who I worked with my entire career. He has his own company now and still does failure analysis for PPG.

16. On or about June 19, 2014, RUKAVINA sent an email to two employees of J.T.M.G.Co. with the subject line "Complete Process, Materials and Costs for High Performance Plastic Casting." The email contained an attachment entitled "Plastic Casting Procedure for Max Machine Casting for Flat Sheets June 2914.pdf." (hereinafter "Document 1"). In the email, RUKAVINA wrote, in part:

Dear [B.] and [M.],

Attached is a detailed PDF document of equipment, materials, complete process, and costs for casting flat sheets of the high performance plastic. I have more pictures and chemistry details in progress. This should be more than enough to get started. Maybe too much!!!

...

Best regards,

Tom

17. On or about April 16, 2015, agents of the FBI interviewed PPG's Chief Technology Officer and Vice President (hereinafter "PPG CTO"). During the interview, the PPG CTO was shown Document 1. The PPG CTO confirmed that Document 1 came from, and was in all material respects identical to, PPG's technical report entitled "NTP Casting Process for G650 Cabin Window" (hereinafter the "Technical Report"). According to the PPG CTO, the Technical Report was the "recipe" to manufacture the windows for the [REDACTED] aircraft and that this technology was referred to as "OPTICOR," which is used

and intended to be used in interstate or foreign commerce. According to the PPG CTO, OPTICOR, which started development in 2004, is the industry's first new transparent plastic in more than 50 years, and is used to develop the windows for the [REDACTED], although PPG intends to expand its uses to other types of high-speed transportation. The PPG CTO stated that the Technical Report contains outlines the casting process and materials for the windows, lists of design specifications, lists of composition details – how the materials combine together, and outlines of raw materials suppliers lists and costs.

18. PPG Security has confirmed to agents of the FBI that the Technical Report is protected in PPG's Electronic Library System and only authorized PPG employees had access to it with an appropriate username and password. PPG further has marked the Technical Report as PPG confidential⁴ and ITAR restricted.⁵

19. The PPG CTO advised agents of the FBI that, although he could not specifically quantify the financial value of the Technical Report, it is worth millions of dollars to PPG based on costs to develop as well as sales and sales potential. Further, PPG is the sole supplier for the [REDACTED] and no other company in the industry has the OPTICOR technology.

⁴ "PPG Confidential" is marked on every page of the Technical Report.

⁵ "ITAR" refers to information that is regulated under the U.S. International Traffic in Arms Regulations. According to PPG, the Technical Report is in, in fact, controlled by ITAR. A review of the Technical Report shows that several pages in the Technical Report are marked with the following:

"U.S. State Department Export License Required for Distribution to Foreign Destinations or Foreign Persons, Wherever Located. *This document contains technical data controlled under the U.S. International traffic in Arms Regulations ("ITAR"), 22 CFR 120-130, and may not be exported or transferred to any Foreign Person, foreign country or foreign entity, by any means, without prior written approval from the U.S. Department of State, Directorate of Defense Trade Controls ("DDTC") and PPG Industries, Inc."*

20. On or about June 21, 2014, RUKAVINA sent another email to the account B.C. and M.Z. of J.T.M.G.Co. with the subject line: "Summary of All Technologies I Can Deliver to [J.T.M.G.Co.]." In the email, RUKAVINA attached a Powerpoint slide (hereinafter "Document 2") which he stated contained "everything that I can deliver to [J.T.M.G.Co.]." On slide 3 of Document 2, which was entitled "Products List," RUKAVINA listed the following:

- Interlayer/Adhesion
- High Impact Laminates and Monoliths
- Visible Light Switchable Transparencies Electro-chromic
- Optical Coatings for Plastics
- Sound Attenuation Windows/Acoustic Windows
- Infrared Absorbing Plastics
- Conductive Transparent Films on Glass and Plastic
- Sealant
- Elimination of silk screening on glass
- Analytical Techniques
- Transparency design
- Bird strike modeling and simulation

21. On or about April 16, 2015, the PPG CTO reviewed Document 2. The PPG CTO stated to agents of the FBI that the above list in Document 2 outlined PPG's product list which is PPG's core business. Further, the details of those items would be worth hundreds of millions of dollars to PPG. The PPG CTO affirmed that the products listed go well beyond Rukavina's particular expertise and his former access authority.

22. In addition, the contents of EMAIL ACCOUNT2 also contained the emails to the sub-contractor in February 2015 referenced earlier in this affidavit, as well as additional emails which placed those emails to the sub-contractor into context. For example, in reference to the photograph and drawing discussed in Paragraph 7 above, on or about February 5, 2015, RUKAVINA sent both items to M.Z. in attachments to emails. In a subsequent email that day, RUKAVINA stated:

[M.],

The drawings are labeled "PPG Proprietary" so my guess is that they will not make them for us. Someone else may.

Tom

23. Shortly thereafter on February 5, 2015, M.Z. sent an email to RUKAVINA stating in response:

I removed the logo of PPG and their company name from the pictures. Hope I did in a legal way. Just sent an e-mail to the purchasing manager. Let's wait the feedback from him.

24. Following the sub-contractor employee's response, referenced above in Paragraph 8, on or about February 11, 2015, M.Z. sent an email to RUKAVINA stating:

TOM,

[The sub-contractor] replied to my inquiry.

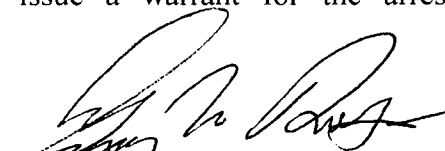
Do you think it's better let them know you or not? Please confirm me and reply on the questions concerning the detail information on the drawings.

[M.]

25. In response, RUKAVINA sent an email to M.Z. on February 11, 2015 stating,

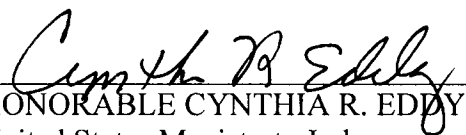
Yes you can give them my name and number. I will just tell them that I am at PPG and we are shifting manufacturing to [J.T.M.G.Co.] in China. These molds will be for the size and thickness that I cast at PPG. Let me look at the actual sizes for TMP and we can have maybe 8 molds for the PPG sizes and cart.

26. In sum, the above facts indicate that Thomas RUKAVINA, has illegally carried away and communicated, transmitted, and conveyed the trade secret to M.Z. and J.T.M.G.Co, in violation of Title 18, United States Code, Section 1832. As such, Your Affiant prays that this Honorable Court issue a warrant for the arrest of Thomas RUKAVINA.



GREGORY W. ROTH, Special Agent
Federal Bureau of Investigation

Subscribed to and Sworn before me
this 7th day of May, 2015.



HONORABLE CYNTHIA R. EDDY
United States Magistrate Judge