

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARKEMA FRANCE,
Petitioner

v.

HONEYWELL INTERNATIONAL INC.
Patent Owner

Case IPR2015-00916
U.S. Patent No. 8,710,282

DECLARATION OF THOMAS MORRIS

Pursuant to 28 U.S.C. § 1746, I, Thomas Morris, state of my personal knowledge as follows:

1. I currently serve as the Director of Commercial Development in the Fluorine Products business at Honeywell International Inc. (“Patent Owner”). I have served in this role since 2006. In this role, I lead the development and commercialization of our low Global Warming Potential (“GWP”) refrigerants, including 2,3,3,3-tetrafluoropropane (“HFO-1234yf” or “1234yf”).

2. In 2006, European directive 2006/40/EC was enacted. The directive, which was to go into effect in 2011, required that all new car platforms for sale in Europe use a refrigerant in its AC system with a GWP below 150. Honeywell developed the 1234yf refrigerant, in part, to meet the directive.

3. During development of 1234yf, Honeywell, along with its development partners, developed manufacturing processes for 1234yf. While there were many potential paths to manufacturing 1234yf, our work and research directed us to at least using hexafluoropropylene (“HFP”) as a starting material. Honeywell’s goal was to identify best options for short, middle and long range volume commitments as the market was developing. Honeywell was simultaneously working to address a number of industry and commercial concerns related to the safety and use of 1234yf.

4. At the end of 2007, the German industry association, VDA, announced that it had chosen carbon dioxide (CO₂) as its refrigerant. This decision increased the chances that original equipment manufacturers (i.e., car manufacturers such as General Motors or Toyota) in other parts of the world might also decide not to use 1234yf. From Honeywell's perspective at the time, this made it riskier to sink further time and capital into the development of commercial-scale 1234yf plants. Given the size and market power of the German automakers—namely Volkswagen, Daimler, BMW, Porsche and Audi—VDA's decision to use CO₂ increased the risks associated with investing in 1234yf. Honeywell continued to invest in 1234yf, as industry associations continued to signal interest, even in view of VDA's decision.

5. As part of Honeywell's investigation with respect to 1234yf, I can specifically recall particular events in 2009 that contributed to our ongoing efforts. For example, in April 2009, a Forward Engineering Request Form was prepared and submitted to obtain approval to spend additional resources on engineering of a manufacturing plant for 1234yf.

6. I recall that the manufacturing investigations continued in May 2009 as Honeywell was exploring manufacturing options for 1234yf. Specifically, in May of 2009, I worked on establishing a path for a decision on a manufacturing

plan for 1234yf. One option that Honeywell pursued involved converting an existing manufacturing facility that was owned by a major manufacturer of chemical products. Honeywell negotiated an agreement with the manufacturer to convert a portion of that facility into a 1234yf manufacturing facility. As Director of Commercial Development, I was involved with these negotiations. In addition, in June of 2009, I visited a potential site outside the U.S. with a team of Honeywell engineers investigate options for the manufacture of 1234yf.

7. In June and July of 2009, our focus continued to be on commercialization. For example, we worked on developing our sales specifications and sales presentations during this period.

8. In August 2009, Honeywell was drafting recommendations for the safe use of, and handling procedures for, 1234yf in automotive air conditioning systems.


9. By September 2009, Honeywell had a working draft of a whitepaper to brief Honeywell top executives regarding 1234yf and to obtain approval for business decisions related to the manufacture of 1234yf. The whitepaper was yet another piece to our ongoing efforts.

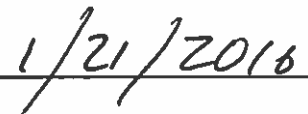
10. Throughout the remainder of 2009 and into 2010, Honeywell continued to invest in the development of 1234yf. As a result, Honeywell began supplying the refrigerant to its U.S. customers in the fourth quarter of 2011.

11. Since 2011, Honeywell has been active in its efforts in the production of 1234yf. As a result of these tireless efforts, Honeywell expects that the high volume production plant in Louisiana will come online in the near future.

Declaration of Thomas Morris
IPR2015-00916

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct and that all statements made herein of my own knowledge are true and that all opinions expressed herein are my own; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


Thomas Morris


Date