

Guidebook of IP/Technology Transfer

Track 3

Advanced-Level Technology Transfer

Topic 3.7.4

Integrating patents and Trade Secrets: Management and Licensing

Thank you

Licensing Patent & Trade Secret Combinations³

- Some technologies are best protected by both patent and trade secret
- This is of value because patents expire (20 years from filing) while trade secrets are potentially perpetual
- Thus, one a technology that can be protected by patent and trade secret, the duration of the license can be much longer than the life of the patent
- However, constructing such a dual-type IP license requires some unique provisions
- The key is to think about the single technology as covered by two, distinct forms of IP
- While these two forms are integrated into the whole of the license, they are also independent of each other

Examples of Trade Secret/Patent Combinations

Technology: Rice-ash ceramic membrane for reverse osmosis

Patent: Ceramic with rice hull ash in thin layer geometry

Trade Secret: pressure and temperature settings for ceramic manufacture; ceramic/rice ash pre-ceramic formulation

Licensing Patent & Trade Secret Combinations⁵

Example: “Technology” = Rice-ash ceramic membrane for reverse osmosis

“Licensed IP”:

- a) US Patent 9,123,456 *Thin-layer Rice Hull Ash Ceramic*
- b) Trade Secret: *Pressure/Temperature for Calcining pre-Ceramic mixture; Ceramic/Rice Ash Pre-Ceramic Formulation*

“Licensed Products” = products that require use of either License Patent or Licensed Trade Secret

“Royalty” =

- 5% on sales of Licensed Products requiring use of Licensed Patent AND Licensed Trade Secret
- 4% on sales of Licensed Products requiring use of Licensed Patent only
- 2% on sales of Licensed Products requiring use of Trade Secret only

“Term” = the life of the Trade Secret

Example: Rice-ash ceramic membrane for reverse osmosis

- In this example, the basic technology is carved into patent coverage, and a trade secret
- The license has both IP distinctly described
- The royalty rate depends on whether the licensee uses patent only, trade secret only, or both
- Unlike a patent-only license, which can only last as long as the life of the patent, the trade secret license can last as long as the trade secret – i.e., indefinitely

Examples of Trade Secret/Patent Combinations

Technology: Antimicrobial, bioplastic packaging film

Patent: Thin-film made with nanoemulsion of biopolymer/Zn nanoparticles/essential oil/surfactant

Trade Secret: nanoemulsion mixing procedure, mixer specifications and machine settings

Examples of Trade Secret/Patent Combinations

Technology: High-performance mixing for baking batters and doughs

Patent: Ultrasonic mixing of food batters and doughs, using ultrasound transducer attached to mixing vessel and linked to rheostat control

Trade Secret: ultrasonic settings for optimal microemulsion formation in liquid formulation

Examples of Trade Secret/Patent Combinations

Technology: Mosquito repellent from plant extract

Patent: Mosquito repellent compound made with alcohol extract from *Pycnarrhena manillensis*

Trade Secret: extraction procedure and equipment specifications; formulation of extract into user-friendly repellent skin product

Licensing Patent & Trade Secret Combinations ¹⁰

- In each of these examples, the license agreement would contain two types of “Licensed IP”:
 - patent and trade secret
- The royalty rate is a composite of two components, one for patent use, another for trade secret use
- When the patent expires, a royalty for use of Trade Secret only applies
- If the patent is valid but licensee does not use the Trade Secret, only the patent use royalty applies
- Note that the license can last indefinitely (for the life of the Trade Secret)

Licensing Patent & Trade Secret Combinations¹¹

- The license must include strong and explicit provisions requiring the licensee to maintain the secrecy of the trade secret, at all time
- Loss of trade secret secrecy by licensee may cause significant and irreparable business harm – the financial penalty must be commensurately high
- The licensee must provide a very high level of assurance to licensor if it says it is NOT using the trade secret – requiring affidavit/oath by an officer of the company guaranteeing that the statements are true

Licensing Patent & Trade Secret Combinations¹²

- The TTO must take special care to be sure that the inventors of the trade secret don't do anything that could jeopardize the secrecy of the trade secret
- If the licensee relies on the trade secret and has invested in the use of the trade secret.....
 - loss of secrecy by the inventors at the institution may result in significant financial loss by licensee
- This scenario is a recipe for a significant lawsuit, and damage to the institution (financially and reputation)
- This potential loss of secrecy is a primary reason a TTO at a PSRI should think twice, and very carefully about licensing a trade secret

Can the TTO assure maintenance of trade secret by its own institution?

Trade Secret Opportunities & Challenges

for the TTO

- The Policy challenge:
 - academic freedom and no secrets vs Trade Secret value
- Are Trade Secrets an opportunity for TTOs?
- Practical implications of creating and maintaining a Trade Secret on an academic campus

Summary

- Creating and licensing patent and trade secret IP-rights for a technology can be a smart strategy
- Creating and licensing trade secrets by a PSRI has several challenges, philosophical and practical
- Each institution should decide if its IP Policy will accommodate trade secret creation, maintenance, and commercialization

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