

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION
(d/b/a WABTEC CORPORATION),
Petitioner,

v.

SIEMENS INDUSTRY, INC.,
Patent Owner.

Case IPR2017-00584
Patent 8,714,494 B2

Before KRISTEN L. DROESCH, MEREDITH C. PETRAVICK, and
TIMOTHY J. GOODSON, *Administrative Patent Judges*.

DROESCH, *Administrative Patent Judge*.

DECISION

Denying Petitioner's Request for Rehearing
37 C.F.R. § 42.71(d)

I. INTRODUCTION

Westinghouse Air Brake Technologies Corporation (d/b/a Wabtec) (“Petitioner”) filed a Petition (Paper 2, “Pet.”) for *inter partes* review of claims 1, 2, 5, 10, 11, 14, 17, and 18 (“the challenged claims”) of U.S. Patent No. 8,714,494 B2 (“the ’494 Patent”). *See* 35 U.S.C. §§ 311–312. Siemens Industry, Inc. (“Patent Owner”) timely filed a Preliminary Response (Paper 10, “Prelim. Resp.”). On July 20, 2017, we denied institution of *inter partes* review of the challenged claims. Paper 12 (“Decision,” or “Dec.”). Petitioner filed a Request for Rehearing (Paper 13, “Req. Reh’g”) of our Decision.

II. STANDARD OF REVIEW

When rehearing a decision on institution, the Board reviews the decision for an abuse of discretion. *See* 37 C.F.R. § 42.71(c). The burden of showing that the Decision should be modified is on Petitioner, the party challenging the Decision. *See* 37 C.F.R. § 42.71(d). In addition, “[t]he request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed.” *Id.*

III. DISCUSSION

Petitioner contends that the Board overlooked pages 32 to 39 of the Petition and paragraphs 122–136 of Dr. Pullen’s declaration cited therein that explain the reasons to combine the prior art references and provides a description of the resulting combination. *See* Req. Reh’g. 1. Petitioner contends that the Board did not cite to any of the eight pages of analysis in

the Petition and the relied-on paragraphs from Dr. Pullen’s declaration. See *id.* at 2.

Specifically, Petitioner asserts that:

page 34 of the Petition states that “*Essame* discloses how a redundant hardware system for train control can be set up in a master/slave configuration, and that ***both the master and slave receive the input*** and use the input to calculate the output, but that only the master is capable of sending the output message,” and that “*El Fassi* is specifically described by *Essame* as an example of how to detect errors in a system that controls trains.”

Req. Reh’g 3–4 (quoting Pet. 34). Petitioner argues “[p]age 34 of the Petition also cites paragraph 124 of Dr. Pullen’s declaration explaining that ‘*El Fassi* discloses ***the use of a security code attached to data***, along with ***message verification techniques***, and how redundancy can be used to reduce a probability of failure.’” *Id.* at 4. Petitioner points out that Dr. Pullen concludes that a person of ordinary skill in the art “would have been motivated to use the security code teachings of *El Fassi* in the similarly redundant system of *Essame* to calculate and attach security codes to ***verify that messages were properly received***.” *Id.* Petitioner also contends:

[t]he Petition also discusses how “Beutler ’146 describes a method for transmitting error free critical data and ***detecting if there are errors in the data following receipt*** of the transmission.” Petition, p. 35; Ex. 1002, ¶ 126. It explains that “Beutler ’863 describes that the [c]onsuming device 112 [] can be ***any system or subsystem*** configured to utilize the command messages” [and therefore] a POSA would have looked to other systems to combine with the system described in Beutler ’863. Petition, p. 36 (emphasis in original); Ex. 1002, ¶ 128.

Req. Reh’g 4. Lastly, Petitioner points out that Dr. Pullen provides a detailed explanation of what the proposed combination would look like. *Id.* at 6 (reproducing Pet. 38, Fig. 1 and Ex. 1002 ¶ 135, Fig. 1).

Figure 1 from the Petition and Ex. 1002 is reproduced below:

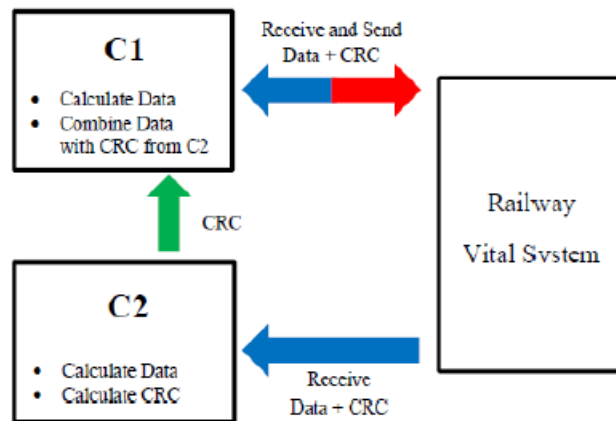


Figure 1: Example Railway Vital Application System

Figure 1 depicts Dr. Pullen’s proposed combination discussed in Ex. 1002 ¶ 135.

In our Decision, we explained the Petition does not address sufficiently the proposed modifications to the prior art teachings that one with ordinary skill in the art would have made to arrive at, for example, “the first and second controllers respectively receive an input vital systems message including input vital systems data and an input security code, verify the input message integrity and . . . ,” as recited in claim 1. *See* Dec. 13–15. In rendering our Decision, we considered pages 32–39 of the Petition and the expert declaration paragraphs cited therein, but found these arguments no more illuminating than Petitioner’s arguments referenced specifically by page number in the Decision.

In view of the Petition arguments highlighted in the Request for Rehearing, Petitioner’s proposed modifications to the prior art teachings that one with ordinary skill in the art would have made remain unclear. *See* Req. Reh’g 3–4, 6; Pet. 34–35, 38. Because Petitioner offers insufficient explanation of how one with ordinary skill in the art would have modified

the teachings of Essame, El Fassi, Beutler '863, and Beutler '146, we are left to speculate as to the numerous possible modifications based on the prior art teachings. For example, we speculate, based on Petitioner's highlighted arguments in the Request for Rehearing, that the Petition proposes modifying Essame's master and slave computers in view of El Fassi by adding a security code to the master and slave computers' input data, and further modifying Essame's master and slave computers in view of El Fassi by adding "message verification techniques." See Req. Reh'g 3-4; Pet. 34. As another example, we speculate the Petition proposes modifying Essame's master and slave computers in view of El Fassi by adding a security code to the master and slave computers' input data, and further modifying Essame's master and slave computers in view of Beutler '146 and Beutler '863 by adding "detecting if there are errors in the data following receipt of the transmission." See Req. Reh'g 3-4; Pet. 34-36. As yet another example, we speculate the Petition proposes modifying Essame's master and slave computers in view of El Fassi by adding a security code to the master and slave computers' input data, modifying the security code to be a cyclic redundancy check (CRC) in view of Beutler '146 or the knowledge of one with ordinary skill in the art (i.e., "RECEIVE DATA + CRC"), and further modifying Essame's master and slave computers in view of Beutler '146 and Beutler '863 by adding "CALCULATE CRC" to one of Essame's computers. See Req. Reh'g. 6, Fig. 1; Pet. 37-39, Fig. 1; Ex. 1005 ¶ 135, Fig. 1.

Petitioner further argues that, in finding insufficient articulated reasoning with rational underpinning for combining the prior art teachings, the Board overlooked the same pages of the Petition and Dr. Pullen's

declaration paragraphs cited therein. *See* Req. Reh’g. 4–5. Petitioner contends specifically that the Board overlooked Petition page 36 and Dr. Pullen’s declaration paragraphs 129–133 cited therein explaining that “a POSA interested in making a redundant control system even safer (the known problem in the art) would have readily considered other references that describe transportation control systems and other techniques for improving the overall safety as potentially obvious and known solutions to those problems.” *Id.* at 5 (quoting Pet. 36; citing Ex. 1002 ¶¶ 129–133). Petitioner further directs attention to: “a POSA would have been motivated to modify the processing system of *Essame* (as augmented by the specifically referenced *El Fassi* publication) by incorporating the monitoring processor functionality of *Beutler* ‘146 and *Beutler* ‘863 when designing a railway control system where safety is a top concern.” *Id.* (quoting Pet. 37; citing Ex. 1002 ¶ 134).

In rendering our Decision, we considered pages 32–39 of the Petition and the expert’s declaration paragraphs cited therein, but determined Petitioner’s stated reasons for combining the teachings of the references were conclusory, similar to Petitioner’s stated reasons referenced specifically by page number in the Decision. *See* Pet. 15. Aside from Petitioner’s assertion that a person of ordinary skill in the art interested in making a redundant control system even safer would have considered other references describing transportation control systems and techniques for improving the overall safety (*see* Req. Reh’g 5; Pet. 36), we are left to speculate as to why one with ordinary skill in the art at the time of the invention would have made the speculated modifications and/or any other possible modifications to the teachings of *Essame* in view of *El Fassi*,

Beutler '863, and Beutler '146. Petitioner's statement that "a POSA would have been motivated to modify . . . when designing a railway control system where safety is a top concern" (Req. Reh'g 5 (quoting Pet. 37; citing Ex. 1002 ¶ 134)) is conclusory because it does not provide a reason why one with ordinary skill in the art would have made the speculated modifications and/or any other possible modifications to the prior art teachings. Instead, Petitioner's stated reasoning provides yet another possible proposed modification: modifying Essame's master and slave computers in view of El Fassi by adding a security code to the master and slave computers' input data, and further modifying Essame's master and slave computers in view of Beutler '146 and Beutler '863 "by incorporating the monitoring processor functionality." See Req. Reh'g. 5.

For all of the foregoing reasons, Petitioner does not persuade us that we overlooked arguments in the Petition that articulate, with reasonable clarity the particular teachings of Essame, El Fassi, Beutler '863, and Beutler '146 that are relied upon, the manner in which the particular teachings are to be combined, and sufficient reasoning with rational underpinning for combining particular teachings of Essame, El Fassi, Beutler '863, and Beutler '146. Therefore, we are not persuaded that the Decision should be modified.

III. DECISION ON REHEARING

Petitioner's request for rehearing is *denied*.

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