

Decision No. 92915 APR 21 1981

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Philip S. Wessels,

Complainant,

vs.

Southern California Edison Company
and Pacific Gas and Electric
Company,

Defendants.

Case No. 10889
(Filed July 9, 1980)

ORDER OF DISMISSAL

Statement of Facts

Philip S. Wessels (Wessels), a senior member of the Institute of Electrical and Electronic Engineers, registered in California as an Electrical Engineer and a Mechanical Engineer, and a member of System Safety Society, has developed the theoretical design of a system which he has styled as a ground fault interrupter (G.F.I.).

Wessels asserts that human contact with a 12,000 volt primary distribution line creates a unique signature, (a traveling wave associated with a human contact, as opposed to that of any other contact), and that the traveling wave developed from this arcing contact has a rise time in the order of one microsecond.^{1/} It is his theory that this distinct characteristic can be used to sense a contact and ground the contacted line in a time sufficiently short to prevent injury. Power flow interruption is avoided by simultaneously ungrounding the neutral conductor. Wessels asserts that the techniques to accomplish this result have been available since the mid-1930's.

^{1/} 1 microsecond is 1 millionth of a second.

Each year in California there are approximately 40 deaths and 150 injuries caused from electric overhead distribution line accidents. It is Wessels' contention that were his concept developed and protective circuitry installed, these deaths and injuries from contact with energized overhead distribution lines could be prevented.

Wessels has published,^{2/} in theoretical or conceptual terms, his theory, and therein discussed the problems anticipated and the results of computer-aided analysis of some of these problems. He has no experimental verification of his theory. Wessels has attempted to interest Southern California Edison Company (So Cal Edison) and Pacific Gas and Electric Company (PG&E) in his proposal. Both utilities considered his proposal, and concluded that serious engineering obstacles render the plan infeasible. Therefore both utilities decline to invest money or possibly endanger the health of their employees, or risk interrupting service to their customers.

Wessels has pursued matters further. In a legal action, Marie Cruz Magallanes, et al. v Southern California Edison Co., tried in 1979 in the Superior Court in and for the county of Riverside, the Honorable J. David Hennigan, presiding, Wessels testified as an expert witness for plaintiffs, and the Court concluded that the gist of Wessel's testimony was: "in effect, that such a device could have been developed and could have been in effect".^{3/} The Court, after further examination of records, went on to rule relative to the G.F.I. that:

"...examination of the witness has indicated this device has not yet been manufactured nor is available as a device on the market. The complete design of the device has not yet

^{2/} Appended to the complaint filed was an unpublished paper entitled: Ground Fault Interruption For Personnel Protection On The Overhead Electric Power Distribution Line. The paper has been submitted to the Institute of Electrical and Electronic Engineers for consideration for publication.

^{3/} Case No. 110 189, Superior Court Riverside County, Calif. Dept. 12 (Magallanes v So. Cal. Edison). See Ct. Reporter's Transcript p. 43, April 18, 1979.

been published in any journal available to the defendant. The Court, therefore, finds the device of this ground fault interruptor was not available to the defendant on or before October 1, 1973.

"You are instructed that you are not to consider the failure of the defendant to have a ground fault interrupter on its power lines from the time of the death of the decedent here as being any negligence on the part of the defendant.^{4/}

Meanwhile Wessels continues to be involved in litigation with Edison and other utilities.

By this complaint Wessels alleges a violation of Rule 11 of General Order No. 95 of this Commission^{5/} by both defendants. He asserts that the technology has been in existence since the late 1930's to economically protect the public from serious injury from contact with defendants' overhead electric distribution lines and that failure to make available testing facilities and to develop this technology constitutes an unwarranted hazard.

Both defendants filed answers. So Cal Edison admits it has refused to make any of its facilities available for testing by complainant, and then asks that the complaint be dismissed in that by Wessels' own testimony in Magallanes v Southern California Edison, on (supra), the G.F.I. system does not exist. So Cal Edison further asserts that complainant lacks the legal capacity to complain.

^{4/} Id. at p. 60.

^{5/} Section 1, General Provisions, Rule No. 11: Purpose of Rules: The purpose of these rules is to formulate, for the State of California, uniform requirements for overhead electrical line construction, the application of which will insure adequate service and secure safety to persons engaged in the construction, maintenance, operation, or use of overhead electrical lines and to the public in general.

In its turn PG&E admits that it has declined to make any of its facilities available for testing by the complainant, and as an affirmative defense alleges that complainant has failed to comply with Rule 9 of the Commission's Rules of Practice and Procedure wherefore PG&E asks that the complaint be dismissed.

Discussion

Public Utilities Code Section 1702 provides in relevant part that: "Complaint may be made...by any...person...by written petition or complaint, setting forth an act or thing done or omitted to be done by any public utility, including any rule or charge heretofore established or fixed by or for any public utility, in violation or claimed to be in violation, of any provision of law or of any order or rule of the commission." Rule No. 10 of the Commission's Rules of Practice and Procedure provide in part that: "The specific act complained of shall be set forth in ordinary and concise language. The complaint shall be so drawn as to completely advise the defendant and the Commission of the facts constituting the grounds of the complaint, the injury complained of, and the exact relief which is desired."

The complaint herein sets forth complainant's concept in some detail. Defendant utilities have not only here but in the past considered and analyzed complainant's proposal. They have after such consideration and analysis concluded that serious engineering obstacles render the concept infeasible. Admittedly, a G.F.I. does not exist except as a conceptual idea of its originator; complainant concedes it is not patentable. There is no such device on the marketplace. The complaint prays that So Cal Edison and PG&E make the necessary effort to incorporate G.F.I. into their electrical power distribution systems. Both utilities decline to expend their funds to experiment or consider the concept further.

There is nothing in the complaint which sets forth "any act or thing done or omitted to be done by any public utility,

including any rule or charge heretofore established or fixed by or for any public utility, in violation or claimed to be in violation, of any provision of law or of any order or rule of the commission." No violation of Rule 11 of General Order No. 95 has been shown. Further, the utilities assert that they have no reason to believe that the traveling wave associated with a human contact is in fact unique and can be reliably detected. They suspect that normal system disturbances, including routine switching, motor operations including cogeneration operations by customers, natural contacts, and lightning could duplicate the wave, falsely triggering the protective gap and interfering with normal power distribution operations. Finally, they conclude that until a sensing device can be designed and constructed to operate in zero time, such a recognition system as that proposed by Wessels is not possible. We know of no law which would require that a utility expend its funds to further experiment or develop technical concepts, which are speculative and possibly technically infeasible, merely because they are persistently espoused by an individual.^{6/}

Given these circumstances, and the fact that the complaint fails to state a cause of action, the complaint should be dismissed.

Conclusions of Law

The complaint fails to state a cause of action because it does not allege any violation or claimed violation of any provision of law or of any order or rule of the Commission.

^{6/} If complainant successfully develops and tests his concept further, it is suggested that he refer his work to the Electric Power Research Institute, a research facility of which most electric utilities are members.

IT IS ORDERED that the complaint in Case No. 10889 is dismissed for failure to state a cause of action.

The effective date of this order shall be thirty days after the date hereof.

Dated APR 21 1981, at San Francisco, California.

John E. Byron
President
Richard D. ...
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Commissioners