May 2, 1951

Dr. Ralph M. Stuck
1027 E. Amherst
Englewood, Colorado

Dear Doctor Stuck:

I have delayed writing to you concerning House Bill #277 until I could find time to consider it in some detail and also to submit it to some of my associates for their comments. The past several weeks have been filled with work clamoring to be done, and therefore more time has gone by than I should have wished.

My comments will take the form of criticisms of what is not to our liking, and therefore they may not be as constructive as they might be if we were capable of drafting an ideal bill. I recognize this as a very difficult task, and while I am critical of what has been done in some respects, I am not talking down to the Committee from any superior height of wisdom.

On page 2 beginning at line 26 d. "Occupational Disease" is defined. I do not presume to know what is meant for legal purposes by "the rational" mind, but I think it is a mistake here not to put the emphasis on the medical interpretation. The layman's interpretation of cause and effect relationships is utterly incompetent here in many, if not most instances, and thus I should insert in line 1 page 3 after "circumstances" the phrase "and the available medical evidence" - or words to that effect.

On page 4 line 22, I think the expression "<u>might</u> cause such disease" opens the floodgate to an endless series of speculations concerning possibilities and probabilities. To my mind this is an invitation to one of the more serious errors of medical testimony and judgment. This entire paragraph up to "Schedule" is bad in its implications and in what it will lead to in hearings of this type. I should change it radically in several respects. The phraseology beginning in line 21 should read somewhat as follows; "---and (was) exposed to conditions of his employment that (were in fact capable of causing) such disease, ---." The question is not - could the illness have been occupational origin, by some stretching of the possibilities? - but rather it is - was it so in this case? In the same paragraph, line 25 and 26, it is wrong, I believe, to require the employer to prove that the employee does not have the occupational disease. He may or may not be able to do so, but the important thing here relates to whether or not the claimant acquired the disease under the conditions of employment provided by this employer. The nature of the conditions may have been such that the disease could not, within

the limits of reasonable probability have been acquired. Such facts bear heavily on the correctness of the diagnosis, on the one hand, and the placing of responsibility on the other. Certainly the employer should be concerned, primarily, with the elimination of hazard. Therefore, I should change this clause somewhat as follows: "enough evidence to establish the fact that the claimant (did not acquire the disease under the conditions of employment provided by the employer)."

A minor error occurs on page 5 line 17, in the misspelling of "pemphigus." The time factor in both Beryllium Granuloma and Chrome intoxication or ulceration, page 6 line 3 and 5, is much too short.

The information on lead compounds, page 6 line 20 et seq, is largely incorrect or misleading. Lead poisoning does not occur among persons who handle tetraethyl lead in the petroleum industry. No case has ever been seen among persons who mix tetraethyl lead with gasoline. The hazard is there, but the control has been adequate. Tetraethyl lead poisoning has occurred in Colorado only in connection with an abortive and misguided attempt on the part of novices to manufacture tetraethyl lead in a small improvised plant. The hazard of such poisoning exists in connection with cleaning large tanks used for the storage of leaded gasoline, but the control measures generally are adequate, and no such cases have occurred in Colorado. Lead poisoning has never been seen in the U.S.A. in connection with the handling and use of leaded gasoline by filling station attendants, garage mechanics and refinery personnel.

Lead poisoning is quite rare among plumbers and almost non-existent among modern painters. Printers almost never suffer from lead poisoning. It is possible but improbable, if the simplest canons of good housekeeping are followed in printing establishments. The most common sources of lead poisoning in modern industry are - storage battery manufacture, brass founding, lead burning, welding and burning painted steel, lead smelting, manufacture of paint pigments, automobile body manufacturing, pottery and glass manufacture.

The information on mercury is incomplete, as is that on most of the other substances. Each paragraph here should conclude with a clause which takes in all the uses, as in the case of arsenic, page 6 line 13-15, - "and in any other use of (the element) or its compounds."

On page 8, in the paragraph beginning on line 8, some reference should be made to the combustion of the materials mentioned, as a source of oxides of nitrogen.

Line 11 page 8, speaks of poisoning by toxic hydrocarbons, etc., but only in connection with "the general manufacture of chemicals." It would be well here to expand this a little by some such means as the following; - "in the general manufacture and industrial use of

solvents, insecticides, plastics, and chemicals generally."

In the paragraph beginning on line 20 page 8, the bladder tumor chemicals are misspelled - namely "benzidine" and "beta-napthylamine."

On page 9 line 20, to "Fibrosis" should be added "emphysematous blebs."

On page 10 paragraph C, beginning at line 20, makes no provision for beryllium poisoning, in which the lesions may not appear for some years after the end of the occupational exposure which induced the disease, nor for bladder tumor, in which the same situation obtains.

On page 12 paragraph a is, I believe, utterly unworkable and also quite lacking in realism. It provides a refuge from liability for an inept and irresponsible employer. Nothing is clearer in the modern concept of industrial hygiene, than the responsibility of the employer for the implementation of his regimen of industrial health measures by an appropriate supervisory and educational program. When this is done the problem referred to here does not exist. When it is not done, it is because of the ignorance or irresponsibility of the employer or his agents.

I do not trust the mechanism by which the Medical Reference Committee is set up (page 16, beginning line 23). Perhaps I am unduly suspicious of this provision, but I should think it highly probable in most of the states with which I am familiar, that at least two of the three men who are to submit the lists of professional committeemen, will have little or no knowledge of occupational diseases. I am not sure how you can go about it to avoid this difficulty, but I suggest that this procedure be reexamined carefully in the light of the situation within the State of Colorado. If this Committee is to serve a useful purpose, it must be made up of competent, sincere and experienced persons, whose appointments are based on their special qualifications and not on political (in the professional sense) preferment. I feel sure that there are such men available within the State, but there is no large number of them. Your problem is how to make sure that such men will be appointed. Almost everyone believes that a good reputable physician is capable of dealing with these problems of occupational medicine. The facts are otherwise, unfortunately, since only broad experience with occupational disease can yield competence in dealing with them.

This Bill has many good points, in my opinion, and I should not want to give a contrary impression by my criticisms. I trust that what I have said will be useful as constructive criticisms.

Sincerely yours,

Robert A. Kehoe, M. D.

RAK ef