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To the Faculty:

As you know, a number of our colleagues recently endorsed an open letter (in "The Chicago Daily News") criticizing civil defense. While agreeing that the present Civil Defense Program deserves some criticism, we believe not only that technology admits the feasibility of some forms of civil defense, including shelters, but prudence dictates the necessity of such defense. We are concerned that the letter mentioned above will mislead the American public into believing that most of those who have considered the technical features of civil defense will regard it to be futile or impractical.

We urge you to give careful consideration to the attached letter and, if you agree with its sentiments, give it your support by signing the note below and returning it to one of the undersigned.

We intend to have the letter and signatures published (target date, Jan. 18, 1962) in one or more newspapers, depending on the response. We hope that your signature implies that you will be willing to make a small contribution to the cost of this advertising. (Since "The Chicago Daily News" charges \$1.50 per line, \$480 per column, and \$3150 for a full page, a donation of \$2.50 per person would probably cover publication in one newspaper.)

Prof. Vet. Med. Loyd E. Boley

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WE FAVOR CIVIL DEFENSE

An Open Letter to the American People
(Including Pres. Kennedy and members of Congress)

We are deeply concerned by the statements contained in the open letter to President Kennedy about Civil Defense which has appeared as a paid advertisement in various newspapers throughout the country.

Although the letter seeks to inform the public, it unfortunately contains implications and technical inaccuracies which tend to misinform. The letter rightly urges peaceful efforts to solve international problems; however, it could engender a spirit of despair which would make us victims of easy conquest. There is a danger that the American people will become so pessimistic that they will fail to make necessary mental and physical preparations which could insure the survival of our society if a thermonuclear war were forced upon us.

Still further, it would be unfortunate if the American people were to feel that all university faculty believe that a civil defense effort is futile. Most of us who have seriously studied the technical aspects of thermonuclear weapons' effects and methods of protection agree that much effective protection can be provided at a cost which is not prohibitive.

[We are deeply concerned by the fact that individuals can seriously believe that building a completely passive defense is more likely to precipitate an attack than the construction of offensive weapons systems. We believe the benefits of building an effective passive defense far outweigh any improbable increase in tensions which might result therefrom.] *

It would be tragic if adequate civil defense were discouraged by the injection of moral issues having no bearing on the value of shelters. Let us examine the pertinent moral issues. Would it be moral to risk condemning millions to needless suffering and death on the gamble that war will be abolished for all time? Would it be moral to deny the opportunity for survival to millions because some believe that life after a thermonuclear war will not be worth living?

We do not agree with the disturbing view that "working for peace" and civil defense are mutually exclusive. Actually, a strong civil defense system, which can reduce the profit of a surprise attack significantly, might well reduce the chances of war.

Space does not permit a full discussion of all the technical points which should be made in reply to the letter. The following will have to suffice.

1. It is technically false to state that a 100 megaton bomb would cause suffocation of most of the people within a 60-mile radius. The letter implies that detonation of a nuclear weapon over any city will inevitably result in the development of a fire storm. This is not so. Suffocation can occur in fire storms, but fire storms can occur only in areas having high concentrations of readily flammable materials such as the blasted areas of some highly congested cities or areas of coniferous (but not deciduous) forests. The buildings in suburban areas and most small cities are sufficiently far apart that the development of a fire storm is extremely unlikely even if the buildings do burn. Furthermore, it is

* Logic doubtful. If both sides have sufficient offense to destroy one another (in absence of civil defense) then massive defense by one side forces either (a) massive defense or (b) improvement of offense on the other. Either move perpetuates an "arms race".

possible to construct shelters which will protect occupants even in an area enveloped by a fire storm. It is also possible to take prior action which will reduce the probability of a fire storm.

2. Although unprotected people could easily be injured or killed by blast or thermal radiation at a distance as great as 18 miles, they could survive in relatively inexpensive shelters as close as five miles from a 100 megaton burst. Such structures have actually been built and tested at corresponding blast pressures. At greater expense, shelters can be built to insure survival at half that distance.

3. Civil defense does not require living indefinitely in an underground fortress.

4. Those who have studied the topic have a good idea of what the state of affairs would be a day after an attack. Such studies form the basis for urging preparation for such an eventuality. There is convincing evidence that the problems of survival, while great, are not insurmountable and do not provide an adequate reason for giving up hope.

5. Although more needs to be done, a great deal of planning has been carried through to solve the post-attack problems. Plans have been made to maintain our government and social institutions and to stockpile food, medical supplies, tools and other essential supplies for survival and recovery. The public has not been interested in these plans until recently and hence has not become familiar with them.

6. Civil defense is not a significant deterrent at present because it exists primarily on paper. However, a functioning civil defense would be a deterrent.

7. The desirability of civil defense does not hinge on the question of limited war versus all-out war. Civil defense is necessary in any event to reduce casualties. The individual with a shelter available **SHOULD** feel safer because he has significant chances of surviving anything but a direct hit. His chances are poor without a shelter.

Both community and family shelters have their place in the overall plan. Neither type provides the best answer for all areas and conditions. Since community shelters generate a spirit of cooperation, they offer an effective means of preserving a desirable social structure and thus are probably best for business areas, schools and other areas of high population density. For other reasons, family shelters may be best for rural and some residential areas.

We may all disagree on the probability of war, whether slight or great, but facts force us to admit that it is possible. History proves beyond argument that some men can be unspeakably inhumane to their fellows.

In summary we believe that our nation must continue the race for peace by all means consistent with the survival of our society and our ideals. However, we must recognize that in spite of sincere efforts, there is a possibility that war will occur. We believe it is not morally defensible to offer our entire population as a sacrifice to demonstrate our good intentions. We know that it is possible to protect much of our population against the effects of nuclear weapons. We are in favor of a comprehensive civil defense program.