EXHIBIT
API-51

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APPENDIX A

To Minutes of 13th Meeting of Medical Advisory Committee

MEMORANDUM ON MEASURES FOR THE CONTROL OF THE HAZARD ASSOCIATED WITH CARCINOGENIC MATERIALS AND PRODUCTS IN THE PETROLEUM INDUSTRY

In considering the general problem of the inauguration and implementation of precautionary measures in the light of the available information, sober judgment rather than alarm should prevail. This investigation was initiated by responsible representatives of the petroleum industry, and undertaken by the staff of the Kettering Laboratory, in the belief that this potential hazard was worthy of careful investigation, and that the facts, so far as possible, should be established in time to prevent any possible serious consequences to employees of the industry and to consumers of its products. No evidence has been adduced, thus far, of the existence of occupational cancer in association with the new materials and products now being subjected to study. Thus the situation in that regard is unchanged by the investigations of the Kettering Laboratory, although it cannot be said that information concerning employees of the petroleum industry has been sought widely or systematically, or obtained to such an extent as to justify any valid conclusion on this point.

On the other hand, the information obtained by animal experimentation, while not strictly applicable to man or to the conditions of his occupational exposure, is such as to strengthen the suspicion which was originally responsible for these investigations, that an occupational hazard exists. Ordinary prudence, therefore, would suggest that a program which will lead step-wise to appropriate and effective measures of control be evolved, and that preparation be made for its general application. It is apparent that the petroleum industry will proceed, not in disregard of the safety of its employees, but in frank recognition of any hazard that may exist and of the measures necessary to control such hazard, to develop and fulfill its economic and technologic role in our industrial society. This it should do, in the assurance that there are procedures in the armamentarium of industrial hygiene which can be applied effectively to the solution of this problem. It seems desirable at this time to visualize these procedures, and to point out their applicability in principle to the situation which seems to exist.

One is concerned, at this point, not with the avoidance of moral or economic liability or responsibility, if and when occupational disease should develop, but rather with the prevention

of such disease, so far as possible, and with the means for its early recognition and effective treatment, if it should occur because of unrecognized faults in the control procedures. What then is to be done? Certainly it is the height of futility, and a mere gesture of piety, to issue warnings and general instructions to employees of the industry, with the idea that absolution has been obtained thereby from responsibility for what may occur. Nothing has been demonstrated more clearly, by the application of modern methods of industrial hygiene, than the necessity of supplementing admittedly wholesome but impersonal educational procedures by careful hygienic and medical supervision applied unremittingly to every pertinent operation and to every individual employee who is involved in potential hazard. No advice or instructions to workmen subjected to an insidious hazard is worth the energy required to enunciate it, or the paper on which it is written, unless it is interpreted by intelligent demonstration at the site of the hazard, implemented by suitable and adequately maintained equipment, and reinforced by the medical supervision that will detect the early evidences of inadequacies in preventive measures, or departures therefrom. Incidentally, the facts concerning the incidence of this occupational disease, or conversely, the facts which will prove that the hazard and the disease potentially deriving therefrom are nonexistent, can only come from the type and quality of medical supervision envisioned above, provided on a broad base in the petroleum industry. Therefore, not only the control of this hazard, if it proves to be significant, but also the establishment of its significance, in terms of attack rates and other epidemiologic data now being sought, are dependent upon the quality and quantity of such hygienic and medical supervision in the petroleum industry. Without such facilities the epidemiologic phase of this investigation is doomed to dismal failure.

In accordance with these policies, which are the fundamentals of industrial hygiene, the industry should give careful consideration to the means by which it can prepare itself to meet the challenge of the serious occupational hazard, which seems likely to be found. In so doing it will find itself in a strategic position in relation not only to this problem but to others which will arise inevitably out of the future activities of a dynamic technologic industry. The answer to present and future problems of this type is more and better industrial medicine, and more and better technologic understanding and control of the hazards of the industrial environment. In this organized regimen, general sanitation, good housekeeping, the inculcation of appropriate procedures and habits of personal cleanliness and hygiene among employees, and the application of specific safeguards against specific occupational hazards will fit into their proper places simply and as a matter of routine. Without such an organized regimen, these procedures will be sporadic, fortuitous and ineffectual.

In our opinion, in relation to the potential hazards under consideration here, the industry should first examine carefully

all of the technologic and operational possibilities (segregation and control of materials for specific uses, dilution of potentially dangerous materials, and like measures) for the limitation and prevention of the hazard. In view of the apparent significance of the remaining hazard, it should then consider how best and most expeditiously it can provide itself, generally, with the organized hygienic facilities required for the appraisal and control of this and other occupational hazards.

Signed: /s/ Robert A. Kehoe
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