

One would think that the intent of the law was obvious and reasonable. The Coast Guard, however, has interpreted these words as granting it power to deny licenses to applicants on political grounds. The Commandant of the Coast Guard has stated that

The Attorney General of the United States publicly listed certain organizations, etc., which are believed to be subversive or disloyal to the interests of the United States, and in cases where I am possessed of information to justify the belief that an applicant is a member of, affiliated with or sympathetic to the principles of such organizations, I do not consider such applicants to be safe and suitable persons to be licensed under the provisions of Public Law 525.

The Coast Guard has recently denied licenses to scores of radio operators, most of whom served with distinction during the last war and most of whom have been active in the radio operators' trade unions. This assumed, broad power to deny licenses to persons who are alleged to be "sympathetic to the principles" of any organization on the Attorney General's "subversive list" has been applied without granting to the applicants any hearing or even any report as to the source of the Coast Guard's information.

It will be noted that in the past, the government has contended that the Attorney General's "subversive list" was intended merely to govern the qualifications of government employees; it was urged in defense of the promulgation of the list that the government had the right to apply any kind of test to its own employees. The position now taken by the Coast Guard is, of course, a vast extension of that doctrine. It would permit the application of political tests by any public authority granting licenses in many spheres of private employment. The governmental licensing system necessary for the public health and welfare could (on arbitrary grounds chosen by the authorities) now be misused to disqualify doctors, dentists, lawyers, engineers, barbers, veterinarians, nurses, midwives, insurance and real estate agents, or taxi drivers. The list is much wider and could cover any work that is regularly licensed, including many technical and scientific professions.

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The Toxicity of Ammonia

Recently F. C. Schmidt and D. Vallencourt (*Science*, 1948, 108, 555) reported that when human subjects inhaled air containing ammonia gas their blood ammonia reached a level of 36.4 mg N/100 ml of blood. This appears impossible. H. Tauber and I. S. Kleiner (*J. biol. Chem.*, 1931, 92, 177) reported that the ammonia nitrogen level of rabbit's blood shortly before death from ammonium carbonate poisoning was 2-3.5 mg/100 ml of blood. In their investigation of antiurease formation, J. S. Kirk and J. B. Sumner (*J. biol. Chem.*, 1931, 94, 21) found that, in rabbits injected with urease, death is caused by the formation of ammonia. They believed that the poisoning was due to the ammonia itself rather than to an alteration in the pH of the blood.

I have carried out numerous experiments with white rats and find that when ammonium citrate is injected intraperitoneally the animals die at an ammonia nitrogen level of 8-11 mg N/100 ml of blood. When crystalline urease is injected, death occurs at the same level.

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Hydrostatic Pressure Reversal of Narcosis in Tadpoles¹

Under physiological conditions the narcosis of bacterial luminescence by alcohol, urethane, and certain other drugs may be virtually abolished by an increase in hydrostatic pressure (Johnson, F. H., Brown, Dugald, and Marsland, Douglas. *Science*, 1942, 95, 200). Experiments reported herein show that a similar relationship occurs in higher animals, viz., tadpoles of *Rana sylvatica*.

Young larvae, measuring 15-18 mm in total length, were placed in 3%-6% alcohol in tap water at room temperature, 22°-26° C. Both spontaneous activity and response to gentle mechanical stimuli ceased in a few minutes. The narcotized animals were transferred to a steel pressure chamber with Herculite plate glass windows which afforded an adequate view of the interior. The chamber was filled with the same narcotic solution, and pressure was applied from a connecting hydraulic pump. Pressures up to 1,000 psi had no apparent effect, but higher pressures, between 2,000 and 5,000 psi, varying somewhat in repeated experiments with different groups of individuals, caused reappearance of spontaneous activity almost immediately with rise in pressure, and the animals swam about in apparently normal manner. In luminous bacteria at optimum temperature, 3% alcohol causes about 50% inhibition of luminescence intensity, which is largely reversed under 5,000 psi.

Similar results were obtained with tadpoles narcotized in 0.08 M urethane; this inhibition of luminescence is likewise reversed by pressures of the same magnitude.

In contrast, pressure did not reverse the narcosis of tadpoles in 0.001 M *n*-amyl carbamate. This result again corresponds to those obtained in current studies with luminous bacteria which indicate that the inhibition of luminescence by *n*-amyl carbamate, in approximately the same concentration, is scarcely affected by pressure.

Unnarcotized tadpoles became more active under 2,000 psi, but less active with further rise in pressure, and motionless at 5,000 psi. Other aquatic animals have been observed to behave similarly, and pressure itself has been

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