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BOOK REVIEW

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A Review of *Alcohol, Drugs and The New Zealand Driver*

REFERENCE: Stone, H. M., *Alcohol, Drugs and the New Zealand Driver*, New Zealand Department of Scientific and Industrial Research, P.O. Box 9741, Wellington, New Zealand, 76 pages, $8.00.

This booklet is a collection of nine scientfic papers compiled by H. M. Stone of the Chemistry Division of the New Zealand Department of Scientific and Industrial Research (DSIR). A range of topics is covered in this 1982 publication starting with a summary of the development of driving while intoxicated (DWI) legislation in New Zealand, the setting of a statutory limit at 0.08% blood alcohol concentration (BAC) in 1978 and a subsequent separate per se offense based on micrograms of ethanol per litre of breath.

Those with a penchant for statistics will find interesting the section summarizing data relating to alcohol involvement in accidents, the average BAC for various classes of drivers, recidivism rate, the impact of new legislation, changes in drinking hours and enforcement practices, and the effect of media "blitzes." Many similarities between the alcohol-impaired drivers of New Zealand and the United States are to be found in this section.

In New Zealand all blood samples analyzed for possible prosecution purposes are tested at a single DSIR facility by means of an automated gas chromatographic (GC) headspace procedure utilizing *n*-propanol as an internal standard and replicate specimens as the principal method. This is followed by a check method using a third sample of the specimen with an alternate preparatory procedure and a GC column of different polarity. An evaluation of the precision and accuracy of this analytical protocol is given followed by a study of the slow loss of ethanol from stored blood samples through red cell oxyhemoglobin and the use of an appropriate addition of sodium azide to prevent it.

The latter portion of this booklet deals with drug and marijuana involvement in possible impaired drivers. Analytical methods and results are given for a number of drugs and *Cannabis* and end on the remaining difficulty in relating blood-THC levels to the impairment of driving ability.

The final chapter outlines the evaluation, performance, acceptance, and use of the Alco-Sensor III® fuel cell device as the evidential breath tester presently used in New Zealand for breath-alcohol testing.

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