

term, low-dose health effects, and the safe limits of air pollution from products of fuel combustion. Project S-7. Contractor: University of North Carolina.

10. A study of the composition of the stack effluents that result when different types of coal and oil are burned. Special attention will be paid to sulfur compounds and particulate matter. A cooperative project involving API, Public Health Service, and Bituminous Coal Research. Project S-9.

11. To monitor lead levels in the ambient air and in the blood and urine of man, to permit early detection if any tendency toward lead accumulation occurs. A possible continuation of the "Tri-City" study. Project L-1.

12. This project will conduct medical studies that may determine (a) sub-clinical effects of lead in man, or (b) the effects of lead, if any, on well-established clinical conditions, e.g., respiratory diseases. Project L-2.

13. A study directed toward understanding the relationship between bone lead and blood lead. Project L-4.

14. A study that will attempt to determine the relationship of bone lead to the total of lead in the body, and to determine how this relationship has changed with time. Project L-3.

15. This study will determine lead concentrations in soil and vegetation at known distances from highways, to assess the significance of lead fall-out adjacent to highways. Project L-5. Contractor: Rutgers University.

16. A study to determine the lowest level of atmospheric lead that will produce a measurable change in blood lead. In cooperation with the Public Health Service, du Pont, Ethyl Corporation, and the Lead Industries Association. Project L-6. Contractor: Kettering Laboratory, University of Cincinnati.

17. This study will determine what effect, if any, on evaporative and exhaust emissions of automobiles would be brought about by varying fuel composition and volatility, and by blending gasoline with and without lead. An effort will be made to determine the effect on the output of nitrogen oxides and carbon monoxide resulting from variations in gasoline formulas. Project VL-1. Contractor: Bureau of Mines.

18. Using newly available techniques for evaluating the biological effects of lead, this study will involve long-term exposures of mice, rats, rabbits, dogs, and monkeys to lead acetate by feeding and other routes of administration. Special techniques employed will include electron microscopy; and enzyme, behavioral, and radiotracer studies. Project L-8. Contractor: Hazleton Laboratories, Inc.

19. Case studies of representative refineries throughout the United States to determine the incremental cost of making gasoline without lead alkyls. Project LV-9. Contractor: Bonner and Moore.

20. A study to compare the lead burdens of laboratory animals exposed to heavy concentrations of automotive emissions with others not exposed to these concentrations. Project L-10. Contractor: Wayne State University.

21. This study has two purposes: (a) to compare the present total environment—land, air, and water—with the ancient environment by using the isotopic character of lead as an environmental tracer; and (b) to discover the relative importance of various possible sources of lead, and to better understand the mechanisms of lead transfer. Project L-11.

22. A study to determine the effect of volatility changes on the performance of automobiles subjected to a wide range of temperatures. Project V-4. Contractor: Esso Research and Engineering Company.

23. To study methods that industry can use to measure evaporation losses from fuel tanks and carburetors. Project CR-1. Sponsor: Coordinating Research Council of the Society of Automotive Engineers and the API.

24. To determine how variables in fuels and vehicles affect automotive exhaust composition. Project CR-2. Sponsor: CRC.

25. To develop techniques for analyzing exhaust emission composition. A cooperative project with the Automobile Manufacturers Association and others. Project CR-3. Contractor: Bureau of Mines.

26. To develop instruments that will provide meaningful measurement of the various hydrocarbons in automotive engine exhaust. Project CR-4. Sponsor: CRC.

27. This study will attempt to identify the components causing odor and eye irritations associated with diesel emissions, and to relate these components to engine type and operating conditions. Project CR-5. Contractor: Scott Research Laboratories, Inc.