while making ten million journeys in the magnetic trap in about 0.6 second. Another type of experiment uses the theta "pinch" method of condensing plasma. In the USA a major new device called Scyllac is being built. In a UK device a hot dense plasma was kept stable for short times.

Extensive theoretical and experimental work was reported from France on methods of using high-frequency fields to accelerate plasmas. Shock-wave methods of heating plasmas appeared promising, especially in advanced work at Novosibirsk. Another technique uses lasers to create and heat plasmas. It is still uncertain whether this method will be applicable in actual fusion devices, but it appears promising and research programmes are in progress in Italy and USA.

Computers are coming into greater use for research. A USA paper showed that "experiments" can be prepared using large high-speed computers and that a plasma can be simulated by designing a problem for the simultaneous mathematical treatment of tens of thousands of particles in an electromagnetic field.

During informal meetings discussions took place about future conferences, including the possibility of one in USA, and methods of reporting to the next Geneva Atoms for Peace Conference in 1971.

RADIOACTIVE WASTES IN THE AIR

Methods of preventing the pollution of air by radioactive waste from atomic centres were discussed in an Agency Symposium held in New York at the end of August. It was agreed that the atomic industry has a good safety record, and suggestions were made that there should now be a concerted effort to prevent air pollution by all industries.

Altogether 52 papers were presented and discussed during a four-day meeting. The subjects covered were the monitoring of air contaminants; the characteristics of contaminants from nuclear reactors; the testing of high-efficiency filters and removal of noble gases; special problems related to heat and moisture; developments in the removal of iodine and its compounds; recent developments in spray technology; airborne wastes from incineration and operational experience.

The participants were welcomed by Dr. Merrill Eisenbud, Administrator of Environmental Protection Administration for New York City, who was speaking also on behalf of the US Atomic Energy Commission and Harvard University. Mr. L. A. Emelity of the Agency's Health Safety and Waste Management Division spoke on behalf of the Director General.

An address was given by Dr. G. D. Abbatt of Canada, representing the World Health Organization, on the subject of "World Health Considerations in Airborne Pollution with Special Reference to Radioactive Wastes". He commended the atomic energy industry for its safety record but warned against an attitude of complacency which might develop as a result of the relatively poor records of other industries. He stressed the idea that problems of pollution should no longer be approached separately by individual industries but that a combined effort must be made.

As a result of the discussions particularly in a panel meeting on the last day suggestions were put forward for consideration by the Agency on international aspects of contamination of the atmosphere by radioactivity. It was felt that the International Nuclear Information System should be given high priority to keep all Member States informed of developments. Problems which may arise from the use of nuclear explosives in moving land and in underground engineering were felt to be a subject for consideration. Wastes from liquid metal cooled fast reactors, possible pollution from uranium mining and milling, methods for moving radon and its products and the removal of radioactive krypton from the gaseous wastes of nuclear fuel reprocessing plants were listed as being worthy of study. It was hoped that there could be additional research in the removal of krypton and xenon from gaseous wastes. The possibility of co-ordinated examination of research work into the final destination of radioactive elements released in gaseous discharges, of more frequent symposia on the subject and of increased research were raised.

Another suggestion was that there might be co-operation with the World Meteorological and Health Organizations to study ways of preventing a large increase in background radioactivity over the years. Radioactive krypton was mentioned as a gas which could add to this problem.

In waste management programmes there could now, it was thought, be a shift in emphasis from solids and liquids to gases. According to the panel a symposium might be held to consider local effects of airborne releases from nuclear centres. Regional courses on air cleaning problems, greater co-ordination in management research, guidance levels for the discharges and reduction of times of publications were other ideas put forward.