

## The Netherlands

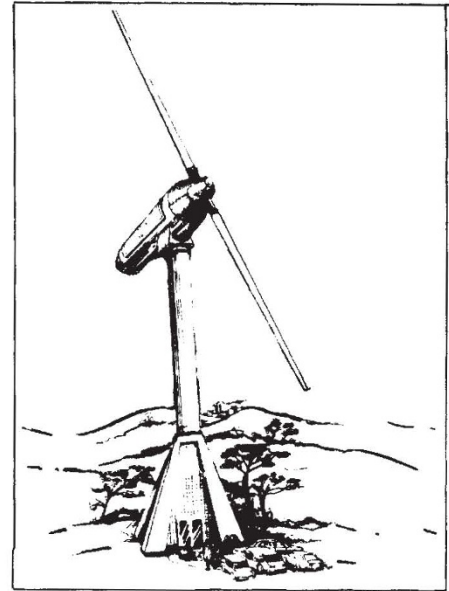
## Tilting back to windmills



The old Dutch windmill . . .

THE windmill is a traditional feature of the Netherlands landscape; but now there is a new turn for it as an energy source. The Netherlands government is carrying out a multi-disciplinary study, and a plan has been put forward for a large wind-and-water power scheme for electricity generation in the unreclaimed part of the Zuiderzee.

The plan comes from hydraulic engineer L W Lievense, and would not reclaim the 40,000 hectare Markerwaard area, but convert it into a huge storage reservoir behind 15-metre dykes, on which would be mounted 400 wind turbines generating 1 to 1.5 MW. The turbines would pump up to 30 cm of water a day into the lake, from which water would fall 12.5 metres at four points in the dyke to drive 160 water turbines, generating 10MW each. At night, a third of the water turbines would themselves pump water into the reservoir, doubling the inflow to 60cm a day. Mr Lievense claims the scheme would generate 10% of national electricity demand at a



. . . and the new: a wind turbine due to come into use this year

capital cost of 3,000 million guilders.

Six government departments are involved in preparing the Lievense scheme, and the first detailed study is expected in August. There are ecological objections to it: lack of sunlight in the deep water would kill organisms on which fish life now depends, and fewer fish, together with the strong currents caused by the overflow points would threaten bird life.

Wind energy is generating great interest in the Netherlands: a private study has calculated that small private 10kW turbines could supply half the electricity needs of groups of 20 houses.

The government's own wind energy research programme is mainly directed to large-scale application. When the programme was started in 1976 it was thought that 5,000 windmills could generate up to 15% of national electricity. Now estimates have been cut back, due to the cost and difficulty particularly of building the offshore windmills envisaged earlier. But the government still believes that 500 turbines could generate up to 2,500MW a year, saving a million tonnes of oil equivalent.

Caspar Schuuring

## Australia

## Probe into A-bomb test deaths

THE South Australian Health Service has sent a team to check on reported deaths and blindness suffered as a result of two British atomic bomb tests in October 1953. Members of the Yankunytjara ethnic group of Australian Aborigines claimed that several of their people became ill or died when a "rolling black mist" enveloped their homes in Willatinna, 45 miles north of the Emu atomic bomb test field. Witnesses claimed the tests resulted in the blindness of 45 people, including many otherwise healthy children, as well as uncontrollable diarrhoea, vomiting and skin rashes. It is also claimed that older members of the group started dying within five days of the tests.

A former sheep station owner in South

Australia, has confirmed the report; she says she saw the cloud, which left an oily dusty residue on buildings and fruit trees, which later died. Her husband died from liver cancer in 1964.

The investigation comes on the heels of public protest about cancer deaths among workers and soldiers at nuclear test sites. The South Australian Campaign against Nuclear Power says that a large amount of low level nuclear waste was left behind at the test site and has only recently been fenced in, with warning signs in English which the Yankunytjara cannot read. The Australian Veterans' Association has demanded immediate government action to clean up the site and compensate the victims of the exposure. □

## United Kingdom

## Scientists' union says nuclear inspectors are under-staffed

THE Institution of Professional Civil Servants, the trade union for government-employed scientists, released a document last week criticising the government for allowing staffing levels in the Nuclear Installations Inspectorate to fall 22 members short of its complement of 104. The NII no longer has a fracture mechanic specialist to assess the potential for fast fractures in pressurised water reactor vessels, an important aspect of PWR safety (*Nature*, 28 February, page 804). In addition, a single nuclear inspector has covered two power stations, Calder Hall and Chapel Cross, since December. In spite

of heavy advertising over the last two years, only two suitable candidates have been found for the 22 vacant posts.

An official with the Health and Safety Executive conceded that the shortages were serious, but said that adequate safety levels were being maintained on a short-term basis. On the question of fast fracture analysis, the Executive says that it has the capacity to make the analysis, but that it may have to subcontract the work to the Safety and Reliability Directorate of the Atomic Energy Authority in the case of "unforeseen occurrences". Mr F R Mullin of IPCS said this would compromise an

independent analysis of PWR safety, and IPCS members in both the NII and the AEA would not cooperate with a sub-contracting policy.

The UK Secretary of State for Employment has revealed that of the six Health and Safety inspectorates (agriculture, alkalis and clean air, factory, mines and quarries, and nuclear installations) only the NII has been permitted to decline in strength. Since 1977, overall HSE, staffing levels have increased by 6%, while in the NII they have declined by 21%.

Joe Schwartz