which the issue of energy policy was for the first time in Britain officially pushed into the arena of public debate.

According to its terms of reference, which were announced by Mr Benn in July, the commission will be concerned with two main issues: the developments of a strategy for the energy sector in the United Kingdom, and specific aspects of energy policy that arise from time to time.

On both of these, according to Mr Benn, the commission will "seek to form an agreed view", feeding into the process by which he hopes that the Government will eventually be able to publish annual reports on the energy situation. These would contain reviews of decisions taken, current prospects, and matters likely to come up for discussion.

As a first step, the Government is expected to publish a Green Paper on energy policy in Britain early in the new year. This will be based on a working document on energy policy which was prepared for the Energy Commission, and published by the Department of Energy last month.

The working document, which was welcomed by environmentalists as indicating slightly more tentative attitude

towards energy issues than previous government statements, and reduced by 10 per cent an earlier forecast of energy needs in the UK by the year 2,000, was one of the main items on the agenda of Monday's meeting.

Among the comments made, for example, was that little attention had been given to the problem of the availability of skilled manpower for the energy industries, a point which Mr Benn said would, like others made at the meeting, be taken into account in the drafting of the Green Paper.

Mr Benn expressed satisfaction, however, that in line with what he calls a "consensus approach to energy policy", the members of the commission had given general support for the working document which was to form the basis of the Green Paper. "We have hit on an energy programme for December 1977 which can claim a wide measure of public consent and understanding", he said.

He emphasised, however, that the commission was purely advisory. Although it provided a chance for the various power industries to compare notes on their future programmes, there was no suggestion that the commission should take over either the

responsibilities of the fuel industries, or those of the established Parliamentary and Governmental channels.

It remains to be seen whether this will be sufficient to maintain the confidence both of the nationalised industries, with their recently-expressed concerns about government "interference", or the trade union representatives, who would like a body such as the commission to assume a great executive responsibility.

Earlier this year Mr Frank Chapple, general secretary of the Electrical, Electronic, Telecommunication and Plumbing Union, and chairman of the TUC's Fuel and Power Industries Committee, six of whose members represent the trade union interest on the commission, suggested that there was a need for a body such as the commission to "bang heads together and work out mutually agreed policies".

Mr Chapple warned: "We are not prepared to rescue the formulation of energy policy from the short-term vagaries of the market-place only to see it taken over by bureaucrats in Whitehall and removed from the public domain."

David Dickson

A second bang in the Urals

THE Kyshtym event of 1958 in many ways parallels the Tungus event of 1908. Both took place in darkest Russia. Both attracted virtually no outside attention for almost two decades. And both, once publicised, became the subject of much speculation, both informed and uninformed, with every new piece of evidence only adding to the mystery.

One of the few clear pieces of evidence to what happened at Kyshtym is given by Dr Lev Tumerman, now of the Weizmann Institute. He visited the area in 1961 and reports extensive devastation, typical of a nuclear disaster. Dr Tumerman, however, will not commit himself on the cause, stating only that it could not have been an accident in an operational power station, since at that time the Soviet Union possessed no such installation. Even in 1961, the first such station, at Beloyarsk, was still in the foundation-laying and concrete mixing stage.

Dr Zhores Medvedev, who visited the area at much the same time, is convinced that the explosion occurred in a nuclear waste store. Although the storage of waste products involves a real leakage hazard, it is difficult to see how it could cause an explosion. One Russian scientist (not a nuclear physicist), told *Nature* that he himself felt that Medvedev's explanation was quite possible, since the Soviet regime pro-

duces in its scientists an "attitude of neglect", so that proper precautions are everywhere ignored. This explanation would, however, apply equally to an explosion at a prototype reactor plant, as much as at a waste dump.

The latest step in the enigma is posed by the release of hitherto secret documents by the CIA. Fourteen documents were released; another 15 exist but are still considered too sensitive, so that, as seems typical for Kyshtym, only partial evidence is available. The involvement of the CIA itself raises a number of questions; in particular, was the notorious U-2 flight over the area

simply part of a routine Union-wide patrol, or was the unfortunate Gary Powers sent to confirm reports already received from a ground-level contact?

Much more mysterious is the fact that the CIA material mentions *two* explosions, one in 1958 and one in 1959. It seems on the face of it unlikely that two nuclear accidents could occur in successive years—even if we admit that an atmosphere of neglect makes Soviet installations peculiarly accident-prone, the fall-out from the first disaster would have surely led to the abandonment of the area, with the shut-down of any project already operating.

Vera Rich

Was Tungus an astronaut?

SINCE the first expedition, just 50 years ago, to the site of the "Tungus event" of 1908, the explosion has posed a major riddle to geophysicists. The latest in a long line of theories, that of a certain Aleksei Zolotov, poses a further mystery—how, in the conditions prevailing in Soviet science, did it ever get published?

It is well-known that the publication of scientific articles in the Soviet Union is subject to strict controls. No paper may be submitted without a special certificate from the author's place of employment—a regulation which, it would appear, leaves no outlet for either the gifted amateur or the harm-

less crank. When Soviet science has, on occasion, followed its own course, unacknowledged by the outside world, this has been due to either the party bypassing normal academic procedures—as in the case of Lysenko—or else to the initiative of the topmost echelons of the scientific establishment—as with the blanket denial of ocean-floor spreading, or Snezhnevskii's theory of "creeping schizophrenia".

Recently, however, Moscow radio broadcast in both Russian and English a "new explanation" of the Tungus "enigma". The theory itself is not new to Western readers of fringe publications: the devastation, it is claimed,

was due to the explosion of an artificial "alien body", and involved nuclear reactions. Within the apparently monolithic structure of Soviet scientific publishing, its appearance, however, is startling.

There have been a number of expeditions to the Tungus area in recent years. Detailed analyses of soil and peat samples have been made, revealing, *inter alia*, a large quantity of silicate particles (diameter less than 200 μm) in the 1908 peat layers near the epicentre. Last March, Professor Emlen V. Subbotovich, the geophysicist, announced the findings of these expeditions: all previous theories, he said, including anti-matter, meteorite, or alien spacecraft, were wrong. The explosion was caused by a comet-like body, with density not greater than 0.9 g cm⁻³. His pronouncement was made with all the concomitants of a definitive pronouncement. Where, then

does Zolotov's theory fit in?

Last week, a former member of several Tungus expeditions visited London—Dr Khronid Lyubarskii, who was recently exiled for his part in the dissident human-rights campaign. Dr Lyubarskii, an astrophysicist specialising in the physics of meteors and meteorites, fully endorsed the official view that a comet was responsible for the Tungus event. According to him, Zolotov, who was described in the broadcast as a mathematician and physicist, was originally an engineer from an oil prospecting team. How he first became involved with Tungus is not clear; the impression which Dr Lyubarskii gave of him is, however, a familiar one—the self-appointed "expert" who in his own opinion knows far more than the scientist in the field. Zolotov's article, it turns out, did not appear in any scientific journal; hence no "certificate" was needed. It was

published in the monthly *Turist*—perhaps in the hope of attracting holiday-makers into the further reaches of Siberia. And for popular journals, explained Dr Lyubarskii, while there is strict political censorship, there is no control of "scientific" (or pseudo-scientific) content.

It is perhaps inevitable that genuine scientific research is surrounded by a penumbra of more or less wild speculation; indeed, this may be a necessary factor in the growth of science. One of the dangers of a monolithic state-controlled scientific establishment is that the rigid structure of the system can exclude the brilliant amateur, and also the scientist trained in one discipline, who, like Pasteur, does his most significant work in another. However wild Zolotov's theory, the fact that it can still find an official outlet in the Soviet Union is a happy omen.

Vera Rich

For years, many adult middle-class males have tried to substitute diet for exercise in warding off heart attacks. The research effort on this "diet-and-heart" question, says George Mann, "has ended in disarray." Dr Mann's conclusions were noted in *Nature* (3 November, page 2) by Dr Rivers.

The popular dogma, which dates from around 1950, has said that diets low in saturated fats and cholesterol, but containing polyunsaturated fats (PUFAs), will produce lower blood-cholesterol levels and will lessen the risk of coronary heart disease. The idea was well-accepted; it was supported by many prominent clinicians and nutritionists. Sales of vegetable oils grew apace, especially those oils for which a slightly higher-than-average content of esters of essential PUFAs could be claimed. Big fields of thistle-like safflowers yellowed the landscape with their blossoms. Safflower seeds furnished the *cordon bleu* of vegetable oils, so rich in PUFAs that you could just feel it doing you good. The oil was hydrogenated to make margarine, even though, as George Mann points out, the hydrogenated, and hence trans, fatty acids have a hypercholesteremic effect. Butter, cream and eggs were to be shunned.

What was the effect of 25 years of these measures? By 1977, as Dr Mann points out, the results show that "a huge cohort of persons past middle age has been recruited to a futile regimen of dietary restrictions". No diet therapy has been shown effective for the prevention or treatment of coronary heart disease. Two of five dietary regimes in which vegetable

oils were featured showed an increased incidence of deaths from cancer in the treated groups.

This may be meaningless, but several experiments have shown an increase in tumour incidence in rats on diets high in polyunsaturated fats,

Sursum corda

THOMAS H. JUKES

such as sunflower-seed oil and corn oil, as compared with saturated fats.

The vegetable oil motif was for many years the official guide to cooking and eating. Who would dare to challenge the sonorous pronouncements of medical authorities when the punishment for such heresy was incapacitation or death? We could almost feel the waxy cholesterol and tallowy fats clinging to our arterial walls after we suicidally wolfed down scrambled eggs or lamb chops. Thoughtful, health-oriented advertise-

ments gave us tasty recipes, made with vegetable oils. Sugar was added to the list of culprits; it could allegedly give rise to "hard fats" when metabolised. In any case, sugar is sweet, and therefore, sinful.

A new ascetism burgeoned and, true to type, its main objective is restoring sybaritic evil-doers to the path of dietary righteousness. Its leader is Senator George McGovern, whose committee on 'Nutrition and human needs' has issued a preposterous report on 'Dietary goals' which calls for governmental action to implement the prejudices of its writers.

The report says, among other things, that it is necessary [*sic*] to make partial substitution of polyunsaturated fat for saturated fat. Why? What about the rats with cancer? The report quotes the *New York Times* to support its thesis for reducing sugar consumption by about 40%, and speaks ominously of cola-guzzling youngsters (the little devils!) and the need for protection against "hidden sugar". Martini-guzzling adults get off without reprimand or umbrage, but we are told that monosodium glutamate "may be associated with headaches, flushes in the head and body and tingling in the spine". Since most common vegetable food proteins contain 20% or more of glutamate, there should be much tingling after a meal, and don't blame the martinis.

Avast to McGovern and his anonymous bluenoses! 'Tis the season to be jolly! I don't think they know what they're talking about, anyway, even if they have wangled a multi-million dollar appropriation to brainwash the public.