Nuclear debaters fired in Mexico

A number of scientists in Mexico have been victimised for opposing or criticising the government's nuclear programme. The following report is based on information from Mauricio Schoijet, a writer and teacher who has been active in the anti-nuclear campaign over the last two decades – though his articles on the subject have not always been welcomed by cautious editors.

At 10pm on 16 November 1988, during tests on the reactor at the nuclear plant at Laguna Verde in the state of Veracruz, there was an accident caused by hydraulic instability, a result of defective design. Inhabitants of the area stated afterwards that they had clearly heard an explosion. The plant manager denied that anything had happened. Several members of the plant's technical personnel, however, confirmed that the explosion had indeed occurred and furthermore charged that the plant's management was using untrained personnel and had failed to ensure in the past the contracting company, EBASCO, redesign faulty systems. Since the explosion, the surrounding area has been occupied by the armed forces in a move designed to intimidate the local population, who had intended to withdraw their children from school as a mark of protest, and force them to keep sending them as usual.

Mexico's nuclear programme is over 20 years old, and throughout that period has been the focus of considerable debate. In 1966, when planning of the Laguna Verde nuclear plant began, petroleum reserves were running out. The large oil fields of the southern states of Chiapas and Tabasco had not yet been discovered and nuclear power seemed an interesting alternative. There was as yet no real awareness of the problems of nuclear waste or the possibility of large-scale accidents. Nor did anyone then recognise the dangers of the particular type of reactor chosen, the Mark II Boiling Water Reactor made by General Electric, which in 1970 was found to be dangerous by the United States Atomic Energy Commission and later recognised as defective in internal documents of General Electric itself.

Despite the difficulties experienced with Mexico's first nuclear plant, the Lopez Portillo government published an Energy Programme in 1981, at the height of the oil boom, detailing plans for the construction of nuclear plants that would produce 20,000 MW, i.e. something like Mexico's total present electrical capacity, by the year 2000. A year later, as severe economic crisis hit Mexico as a result of the fall in oil prices, Lopez Portillo cancelled his nuclear dream. After taking office in 1982, the next president, Miguel De La Madrid, began dismantling and selling costly government enterprises. But completing the Laguna Verde project nevertheless remained an important part of the ruling PRI's (Institutional Revolutionary Party) energy policy.

Significantly, opposition to a large-scale nuclear programme has come not only from academics and ecological groups, but from within the Federal Electricity Commission (CFE), the nationalised electrical utilities company, itself. A former project manager of the Laguna Verde plant, Mr Isidoro Becerrl, told *Proceso* magazine in 1981 that it would be irresponsible to build more nuclear plants 'without having been able to solve the failure of the first one...' He also revealed that there were large cavities in the concrete structure surrounding the reactor, and accused the supervising agency (the National Nuclear Security Commission — the equivalent of the US Nuclear Regulatory Commission) of negligence. As the debate about nuclear power intensified it was also taken up by the country's geological community. Geologists pointed out that the Laguna Verde area was very active from both a volcanic and seismic point of view, and thus an extremely dangerous location for a nuclear plant. Indeed, two serious earthquakes were reported along a nearby volcanic chain in 1912 and 1920, the latter at Jalapa, only 50 kilometres from Laguna Verde.

Seismic activity in the area could also shorten the lifetime of the plant's concrete structures, thus endangering the containment of radioactive materials.

It was in the midst of this debate that the Mexican Geological Society held a conference in Mexico City in October 1988. The President of the Society works for the CFE and the event was inaugurated by the CFE Director in a CFE auditorium. At the conference, CFE geologist Federico Mooser presented a paper giving the official point of view on the matter, denying that the geological characteristics of the area represented any danger to the plant. His presentation, however, was followed by a session of inquisitive questioning. One of those to ask a question and to suggest that Mooser was in fact mistaken in his assessment of the characteristics of the area was Dr Victor Garduño Monroy. Although considered one of CFE's best scientists, he was later accused of disloyalty and fired from the Geothermal Division of the CFE.

This is not the only case of the victimisation of scientists or of scientific research projects which question the government's environmental policies. On the morning of 26 September a fire destroyed the Xochicalli ecological house, owned by Jesus Arias Chavez, and the laboratory and workshop of the Xochicalli Foundation at Ozumba, 40 kilometres southeast of Mexico City, The Foundation had been active for more than 20 years in the construction of biological waste digesters and in helping to develop small rural industries, mostly in the states of Mexico, Tlaxcala and Puebla. It had equipment worth more than US$100,000 and employed three technicians. Mr Arias Chavez had worked as a consultant for several Latin American and UN agencies, helping to construct digesters in Cuba, the Dominican Republic, Guatemala and Peru. Although he received some government assistance, Mr Arias Chavez had bought most of the equipment himself. He is also an antinuclear activist, and two days before the fire had taken part in a confrontation with government officials. Members of a police investigating team told him that the fire had been started intentionally by well-trained criminals. • JK