CASE LAW AND ADMINISTRATIVE DECISIONS

CASE LAW

Brazil

Judgement of the Federal Court in the Public Civil Action concerning the Goiânia Accident (2000)[1]

The Facts

On 13 September 1987, two scrap metal dealers, Roberto Santos Alves and Wagner Mota Pereira broke into a derelict medical clinic called *Instituto Goiano de Radioterapia* (IGR), in the city centre of Goiânia, state capital of Goiás, and with the aid of a wheelbarrow, removed a large piece of lead, which in fact contained a Caesium 137 source, to Alves' domicile close to the IGR.

On the same day, Pereira broke open the Caesium source when he tried to separate the lead in the section where the radioactive source was located. That day he started to feel ill, but sought medical assistance only two days later, in respect of burning sensations in his hands and arms.

On 19 September, Roberto and Wagner sold part of the lead piece, which contained the Caesium source, to another scrap metal dealer, Devair Alves Ferreira. He broke it down and fully opened the Caesium 137 capsule, becoming fascinated with the blue brightness emitted by the dust. Devair received visitors over the next four days who wished to view the blue shining dust. His wife, Gabriela Maria Ferreira was hospitalised due to vomiting and diarrhea. On 23 September, Wagner was hospitalised.

Also on 23 September, one of Devair's employees, Israel Baptista dos Santos, was sent to disassemble the 25 kg lead cylinder, which contained the unprotected Caesium 137 source.

On the next day, Ivo Alves Ferreira, Devair's brother, put a small quantity of the dust in his pocket, and his daughter Leide das Neves Ferreira, ate a small portion of the dust during the meal. The 25 kg lead cylinder and part of the equipment used to disassemble it had been transferred to another scrap metal junkyard belonging to Devair. On 26 September, Kardec Sebastião dos Santos, Ivo's employee, took the 300 kg lead outer shield from IGR to Ivo's scrap metal junkyard.

Two days later, Devair's wife, Gabriela Maria, together with one of their employees, Geraldo Guillerme da Silva, transported the Caesium source without its capsule, in a plastic bag, to the

1. This case note was kindly submitted by Mr. Edson Damasceno of the National Nuclear Energy Commission (CNEN) and Ms. Denise Fischer of the Brazilian Association of Nuclear Law.

Sanitary Monitoring Agency (affiliated to the State Health Department), by bus. On this same day, Wagner was transferred to the Tropical Illnesses Hospital, where the physicians requested the presence of a nuclear physicist, as they considered the symptoms may have resulted from contact with radioactive material.

The accident was then discovered on 29 September. The Sanitary Monitoring Agency authorities immediately isolated the scrap metal junkyard, where the 300 kg lead outer shield was located, and also Roberto's house, where the Caesium capsule was kept.

A group of technicians from the National Nuclear Energy Commission – CNEN – arrived in Goiânia the following day. They isolated the area around the scrap metal junkyard and Devair's house. An emergency plan was implemented, in which governmental entities such as the CNEN, FURNAS Centrais Elétricas S.A., NUCLEBRÁS, the Civil Defence and the Nuclear Emergency Section of the Navy Hospital in Rio de Janeiro participated.

Radioactivity had spread, contaminating people and the environment in an area of approximately 2 500m^2.

By 1 October, six people had been taken to the Navy Hospital, in Rio de Janeiro. Devair's 6-year-old girl who had consumed the dust and Gabriela Maria Ferreira both died on 23 October. On 27 and 28 October respectively, two other persons died.

Besides the four deaths, fifteen people were seriously injured and thirty others suffered minor injuries.

The Public Civil Action brought by the Federal Public Prosecution Service and the State of Goiás' Public Prosecution Service

Following the tragedy which, in the space of a few days, had killed four people, left many others wounded, caused general panic and emotionally shocked the population of Goiânia, and which furthermore had serious repercussions on the State economy for several months, the Federal Public Prosecution Service and the State of Goiás' Public Prosecution Service took various different actions both in terms of federal and of state justice.[2]

A public civil action for damages to the environment was brought in September 1995 by the Federal Public Prosecution Service (Department of Justice) together with the State of Goiás' Public Prosecution Service, before the 8th Federal Court of Goiânia, in relation to the environmental damage caused by the radiological accident.

Legal proceedings were brought against the Federal Union; the National Nuclear Energy Commission; the State of Goiás (through its Health Department); the Social Security Institute for Civil Servants in the State of Goiás – IPASGO, which at the time of the accident was the private owner of the land where the IGR was located; the four medical doctors who owned IGR and the clinic's physicist, who was also supervisor, with a view to obtaining compensation and the restoration of the environment to its natural state.

2. A study of the criminal and civil actions taken may be found in the article by Marie-Claude Boehler "Reflections on Liability and Radiological or Nuclear Accidents: The Accidents at Goiânia, Forbach, Three Mile Island and Chernobyl", *Nuclear Law Bulletin* No. 59 (June 1997).

The Legal Proceedings

The legal proceedings were based on the strict civil liability of the State pursuant to Article 37 §6 of the 1988 Federal Constitution. This provision states that public entities and private entities rendering public services are liable for the damages caused to third parties by their agents, in such capacity and by holders of licences granted by them. It provides the State, however, with a right of recourse against the liable agent in cases of intent or fault.

With regard to the ecological damage, legal proceedings were based on Law No. 6.938 of 23 August 1981 on the National Environment Policy, which entitles the Public Prosecution Service of the Federal Union and of the states to bring public civil actions for damages to the environment. This law establishes the principle of strict liability, compelling the polluter, whether the government or a third party, to indemnify or repair damages caused, irrespective of the existence of fault.

In order to demonstrate the strict civil liability of the Union, the Federal Public Prosecution Service referred to the constitutional rights granted to the Union, pursuant to both the former Constitution of 1967 and the 1988 Constitution, to operate nuclear installations and services of any nature, and to exert a state monopoly over the research, mining, enrichment, reprocessing, commercialisation and trade of nuclear ore and their by-products. The Union is furthermore entitled to authorise, pursuant to a concession or licence, the use of radioisotopes for research, or for medicinal, agricultural or industrial uses and analogous activities [Article 21, XXIII (b)], and to establish a monopoly over prospecting, mining, enrichment, reprocessing, commercialisation and trade of nuclear mineral ores and minerals and their by-products [Article 177, V].

To prove the civil liability of the CNEN, the Federal Public Prosecution Service based its arguments on the founding law of the CNEN [Law No. 4.118 of 1962, modified by Law No. 6.189 of 1974] claiming that its obligations include the regulation of the use of nuclear energy and any implementation and control which may be required with regard to the use of radioactive and nuclear materials.

According to the Prosecution, the civil liability of the State of Goiás was based on the jurisdiction of the Sanitary Monitoring Agency (linked to the State Health Department), pursuant to federal and state legislation, to exercise both the regulation and the control over radioactive materials in hospitals, in particular over devices that may be of harm to human health.

In relation to IPASGO, the Federal Public Prosecution Service alleged that it was liable as the owner of the land where IGR was located, due to its knowledge that there were devices containing radioactive materials on the premises, its failure to take the necessary steps to monitor the place until such abandoned equipment was removed, and its failure to notify the authorities of this situation.

With regard to the owners of IGR, jointly with the clinic's physicist and supervisor, the Federal Public Prosecution Service alleged that they failed to observe a series of CNEN norms on radiological protection, licensing of nuclear installations and management of radioactive waste in radioactive installations.

Compensation Claims

Compensation was sought for the following amounts: conviction of the Federal Union for 2 million Brazilian reals (BRL); of the CNEN for BRL 1 million and of the four owners and the supervisor of IGR, the State of Goiás and IPASGO for BRL 100 000 each, totalling BRL 3.7 million.

It was requested that these sums be lodged with the "Defence of the Diffused Rights Fund" – a federal fund for the compensation of damage to the environment, consumers, property and rights of artistic, historic, or cultural value and other collective rights.

Claims were also entered against the Union, the CNEN and the State of Goiás in respect of their obligation to guarantee health and psychological care for accident victims and their descendants to the third generation born with any anomaly following the proven exposure of their parents; to identify the victims eligible to receive treatment and lifetime pensions; to create a special educational and social care programme for contaminated children; to monitor the health of the neighbouring population who were exposed to the radioactive materials; to publish a quarterly report in the Federal Official Journal and in the State of Goiás' Official Journal on the condition of radioactive materials existing in the State and their exact location; and to create a population data base concerning the mortality rate due to cancer since the accident and to maintain permanent epidemiological monitoring of the population of Goiânia.

The CNEN was also requested to establish a Care Centre in Goiânia for the accident victims, providing permanent assistance from physicians and specialised medical doctors; to carry out periodic environmental monitoring in the region where the accident occurred and to send the results to the State Health Department and to both Federal and State Public Prosecution Services.

The State of Goiás was asked to pay lifetime pensions to the direct victims of the accident, to transfer the titles of the real estate acquired by the State and already occupied by the said victims, and to organise, together with the CNEN, environmental monitoring of the contaminated region through the Environment Foundation of the State of Goiás.

The Judgement

The defendants were ordered by the 8th Federal Court of Goiás in its judgement of 17 March 2000 to pay compensation of BRL 1.3 million [equivalent today to approximately 675 000 US dollars (USD)] to the above-mentioned Defence of the Diffused Rights Fund.

The CNEN, IPASGO, one of the owners of the clinic and the clinic's physicist were found guilty. In his sentence, the Judge excluded the state of Goiás and the Federal Union from the payment of compensation. Also, the other three owners of IGR were excluded from civil liability because the suit was brought against them as individuals and not against IGR, the legal entity. The court found that the Caesium 137 source had been acquired in 1972 by the legal entity IGR, and not by the individual owners of the clinic, and for this reason the clinic stood to be convicted. As the accidents occurred before the promulgation of the current Federal Constitution of 1988, the court could not declare the owners of IGR liable.

Although the two scrap metal dealers were not included as defendants in the public civil suit, the judgement of the court found them directly responsible for the accident involving the Caesium 137. If they had been arraigned as defendants, they certainly would have been convicted, as their actions led to strict (no-fault) liability. However, in terms of criminal intent, they were not aware of the seriousness of their actions in removing the Caesium source from its location, and they had no knowledge of the dangers of the radiological device; moreover, there was no danger sign erected in the abandoned clinic in order to ward off intruders.

The CNEN

The CNEN was ordered to pay to the above-mentioned fund the amount of BRL 1 million, equivalent today to approximately USD 519 000, and also to guarantee medical, psychological and technical-scientific treatment for the direct and indirect victims of the accident and for their descendants to the third generation. Furthermore, the CNEN was also ordered to ensure the transport to bring the most serious victims to their examinations, and was deemed responsible for the medical follow-up of the population of Abadia de Goiás city, where the final repository was constructed to store the hazardous waste from the Caesium 137 accident.

In the event that any further contamination occurs, medical assistance is to be provided by the CNEN, which will also be responsible for identifying and pursuing any cases for concern in the region, and for notifying any sudden changes in the number of illnesses in collaboration with the epidemiological control service maintained today by the State of Goiás' Health Department.

In the event of interruption of this service by the State Health Department, the CNEN shall ensure its continuation, and likewise, if IPASGO or the State of Goiás' Health Department interrupt their services, the CNEN shall be responsible for maintaining a centre of permanent treatment in Goiânia, with physicians and specialised medical doctors.

In the event of breach of any of these obligations, the CNEN is to pay a daily fine of BRL 10 000, equivalent today to approximately USD 5 187.

The Social Security Institute for Civil Servants in the State of Goiás – Ipasgo

The Social Security Institute for Civil Servants in the State of Goiás – IPASGO, was ordered to pay a fine of BRL 100 000, equivalent today to approximately USD 51 867, plus interest as of 13 September 1987, the date of removal of the Caesium 137 capsule.

The Owner of IGR and the Clinic's Physicist

One of the medical doctors owning IGR and the clinic's physicist were ordered to pay the same fines as IPASGO.

The former was found liable for the abandoned state of the IGR building where the Caesium source was kept, including the removal of gates, windows, timberwork and the roof in May 1987. As was stated in the judgement, "... his participation in the recklessness that came to provoke the damages caused by Caesium has been proved, therefore".

The clinic's physicist was condemned because he was the technician responsible for the control of the medical manipulation of the radiological device.

Should there be delays in payment, the fines will increase on a daily basis by BRL 10 000.

All those defendants who were sentenced to fines have appealed their sentences to the Federal Regional Tribunal, located in Brasilia.

Canada

Judgement of the Federal Court on Environmental Assessment of Proposed Used Fuel Dry Storage Project (2000)

On 23 May 2000, the Federal Court of Canada, Trial Division, dismissed an application for judicial review concerning the environmental assessment of a used fuel dry storage project proposed by the former Ontario Hydro, now Ontario Power Generation. The issue was whether the assessment process complied with the Canadian Environmental Assessment Act, proclaimed on 19 January 1995, particularly in respect of the information that was required to be made available and the factors to be considered as part of the assessment process. The Court found that the environmental assessment process that was followed by the former Atomic Energy Control Board (now the Canadian Nuclear Safety Commission) did comply with the requirements of the above legislation. The Court also noted that the scope of judicial review was narrow and that judicial review of a ministerial decision was not a forum in which to debate environmental science. The applicant has appealed the decision to the Appeal Division of the Federal Court of Canada.

France

Judgement of the Council of State confirming the definitive shut-down of Superphénix (2000)

The Council of State, in its judgement of 20 March 2000, rejected both the application to declare Decree No. 98-1305 of 30 December 1998 on the first step of the definitive shut-down of the major nuclear installation located at Creys-Malville (called "Superphénix") to be *ultra vires*, and the application to annul the implicit decision of the Prime Minister rejecting the plaintiffs' application to recommence operations at the plant.

The Council of State, interpreting several provisions of Decree No. 63-1228 of 11 December 1963 on Major Nuclear Installations (see *Nuclear Law Bulletin* Nos. 9, 10, 12, 45 and 52), ruled that the adoption of Decree No. 98-1305 did not require either a public enquiry or consultations with the local information commission at the plant.

Finally, the Council of State ruled that the decision to proceed with the first step of the definitive shut-down of the plant, which has not been operated since December 1996, was not null and void due to bad judgement "with regard to the cost of recommencing operations and to the lack of profitability of the plant, and despite the financial burden ensuing from the shut-down of the plant and the economic and financial consequences which it causes for the state, the local communities and the inhabitants".

Germany

Decision of the Nürnberg-Fürth Regional Court rejecting a compensation claim for a work-related accident (2000)

A former contract employee at the *Reaktor-Brennelement-union mbH* (RBU), a Siemens-owned fuel fabrication plant, sued Siemens for 3 million German marks (DEM) in damages for non-

compliance with radiation protection standards. He alleged that the lung ailments from which he suffers resulted from an accident which occurred at the plant in 1971 involving uranium oxide powder. Ten years after the alleged accident, the employee was diagnosed with acute pulmonary fibrosis and the German authorities responsible for health and safety at work recognised the disease as having been work-related.

On 26 July 2000, the Twelfth Civil Chamber of the Nürnberg-Fürth Regional Court rejected this claim on the grounds that the claim was time-barred under the applicable statute of limitations. The attorney for the plaintiff responded by asserting that he was in possession of evidence demonstrating that Siemens AG and its affiliated companies had not complied with radiation protection standards and that further claims for compensation against the company would likely be filed.

Siemens furthermore denied that the 1971 accident occurred. When announcing its decision to reject the case, the court stated that there was a "certain probability" that the accident "did in fact take place", but they considered that there was "no reason to conclude" that Siemens had thereafter denied the plaintiff medical care, as he had alleged.

The plaintiff has stated his intention to lodge an appeal against the court's decision.

Netherlands

Decision of the Council of State rejecting licences for transport of nuclear fuel (2000)

On 7 July 2000, the Council of State, the supreme administrative court in the Netherlands, again suspended licences issued by the government for transport of spent fuel through Dutch territory. This ruling concerned the shipment of spent fuel originating from the High-Flux Reactor at Petten and due to be transported to the COVRA (*Centrale Organisatie voor Radioactief Afval* or Central Organisation for Radioactive Waste) storage site at the Borssele nuclear power plant, and further shipments of spent nuclear fuel from the decommissioned Dodewaard BWR to BNFL's Sellafield for reprocessing.

An earlier decision of the Council (see *Nuclear Law Bulletin* No. 65) ruled in favour of the plaintiff, Greenpeace, stating that the licences issued by the ministries involved (the Ministries of the Environment and of Economic Affairs) had failed to comply with the Nuclear Energy Act as they contained insufficient justification and incomplete information for the public on the chosen transport routes. Besides the fact that the licences did not demonstrate that the transports were justified in terms of radiation protection, nor did they provide details on the route from Dodewaard to the port of Vlissingen, the Council was obliged to reject these licences due to the absence of two essential signatures – those of the Ministry of the Interior and the Ministry of Foreign Affairs. Following the above-mentioned decision, the ministries concerned duly provided the necessary signatures, but however they also modified the content of the licences. This was deemed to constitute a procedural error which, in turn, obliged the Council of State to rule against the ministries again on procedural grounds. Before it could decide on the merits of the case, the Council, in its decision of 7 July 2000, considered that earlier procedural inaccuracies, in particular relating to mistakes in the details concerning the shipping route, had not been correctly amended. Thus the licences were suspended once more, until the ministries revise the licences in accordance with the ruling of the Council.

Shut-down of the Borssele's nuclear power plant (2000)

The Dutch Ministry of Economic Affairs has decided to take out proceedings against EPZ, the operating utility of Borssele NPP, in order to ensure that Borssele is closed by the end of 2003. The government is of the opinion that an agreement wa--s made with SEP, at that time the parent company of EPZ, in 1994 according to which an upgrade programme should first be carried out, and then Borssele should be closed by 30 December 2003, in return for a sum of compensation (70 million Dutch guilders or approximately USD 170 million) to be paid to EPZ. However, EPZ does not consider itself to be bound by the agreement to shut down the plant by the end of 2003, on the grounds that the agreement was made with SEP rather than directly with EPZ. The Council of State ruled on 24 February 2000 that the Dutch Government had no legal basis for limiting the validity of the Borssele operating licence in return for such compensation (see *Nuclear Law Bulletin* No. 65). Therefore the amended operating licence was declared invalid, automatically reinstating the old licence which was not subject to a limitation in time. The Ministry is thus taking out a civil law action and hopes to obtain an expedient procedure, in light of the time constraints in this case.

United States

Decisions of US Court of Appeals for the Federal Circuit relating to the DOE's obligations under the NWPA to accept spent nuclear fuel and high-level radioactive waste from nuclear power plants (2000)

On 31 August 2000, in two related decisions, the US Court of Appeals for the Federal Circuit held that nuclear utilities are not limited to contractual administrative remedies and can bring damage suits in court for the government's breach of the 1983 Standard Contract under which the Department of Energy (DOE), pursuant to its obligations under the 1982 Nuclear Waste Policy Act (NWPA) (see *Nuclear Law Bulletin* Nos. 26 and 31), agreed to commence disposal of nuclear waste no later than 31 January 1998.

In the first case, *Maine Yankee v. United States*, the Court of Appeals affirmed the decisions of the US Court of Federal Claims[3] allowing utilities (Yankee Atomic Electric Co., Connecticut Yankee Atomic Power Co., and Maine Yankee Atomic Power Co.) to sue the federal government over its failure to accept spent nuclear fuel (see *Nuclear Law Bulletin* Nos. 63 and 64).

The Court of Appeals concluded that the DOE's failure to begin taking spent nuclear fuel did not constitute a "resolvable delay" under the Standard Contract, that the utilities were not obliged to seek resolution under the Standard Contract for damages caused by the DOE's failure to perform, and lastly that the DOE has breached its contractual obligation under the 1982 NWPA.

These three cases now return to the Court of Federal Claims in order to determine the amount of damages which the DOE should pay.

In a related decision, the Court of Appeals reversed the decision of the US Court of Federal Claims in the case *Northern States Power Co. v. United States*[4] (see *Nuclear Law Bulletin* Nos. 63 and

3. *Yankee Atomic Electric Co. v. United States*, case No. 98-126C of 29 October 1998; *Connecticut Yankee Atomic Power Co. v. United States*, case No. 98-154C of 30 October 1998 and *Maine Yankee Atomic Power Co. v. United States*, case No. 98-474C of 3 November 1998.

4. Case No. 98-484C of 6 April 1999.

64). The Court of Federal Claims had concluded that the utility (in that case Northern States Power Co.) had an obligation to pursue remedies with the DOE under the contract and had dismissed the utility's claim for damages.

The Court of Appeals, resolving the apparent inconsistency between the two above-mentioned decisions of the lower court and the issue of whether utilities must first file administrative claims with the DOE under the contractual dispute provision before seeking judicial relief, concluded that the unavoidable delays provisions under the Standard Contract applies to delays arising after the performance of the contract has begun and does not bar a suit in court for damages for the government's failure to commence performance by 1998. While the Court recognised the distinction between the Maine Yankee utility whose reactors are shutdown and the Northern States utility which, having continued to operate nuclear plants and pay fees, might receive an equitable adjustment of charges, it concluded that these factual differences did not warrant a different outcome.

ADMINISTRATIVIE DECISIONS

Finland

Decision of the Administrative Court concerning the construction of a permanent repository for spent nuclear fuel (2000)

This decision of the Administrative Court concerns the application by a Finnish company, *Posiva Oy*, to construct a permanent repository for spent fuel originating from two Finnish companies: *Teollisuuden Voima Oy* and *Fortum Power and Heat* (formerly known as *Imatran Voima Oy*) which also own *Posiva Oy*.

Pursuant to Section 11 of the Finnish Nuclear Energy Act, such constructions require the Council of State's decision in principle that the construction project is in line with the overall good of society ("positive decision"). Before making such decision, the Council of State shall ascertain:

1. that the municipality where the facility is planned to be located (in our case, the municipality of Eurajoki) is, in its statement, in favour of the facility; and

2. that the Finnish Radiation and Nuclear Safety Authority (STUK) does not, in its statement, indicate that factors have arisen which indicate that insufficient safety prerequisites have been fulfilled for the construction of such a facility.

A negative decision by the Council of State terminates the project. A positive decision must be submitted to Parliament for examination. Parliament may maintain or reverse a positive decision.

In the case under discussion, *Posiva Oy* applied for a decision in principle on 26 May 1999. All of the necessary background documents were acquired, a general hearing took place, and the statements listed above under (1) and (2) were issued. However, certain residents of Eurajoki challenged the statement issued on 24 January 2000 by the Municipality of Eurajoki which confirmed that the municipality was in favour of the facility. These claims were rejected by the Administrative Court of Turku on 19 May 2000, and the appeal against this ruling is currently pending before the Supreme Administrative Court.

Switzerland

Votes on new energy taxes and early closure of the Mühleberg nuclear power plant (2000)

On 24 September 2000, the Swiss electorate voted to reject three proposals aiming to establish new taxes on non-renewable energy sources, including nuclear-generated electricity, in order to promote, *inter alia*, the use of solar energy.

On the same day, voters in Bern were requested to decide between the continued operation of the Mühleberg nuclear power plant or its early closure in 2002. This cantonal initiative had been launched after the federal government's decision of 28 October 1998 to extend Mühleberg's operating licence until 31 December 2012 (see *Nuclear Law Bulletin* No. 63). The electorate rejected the proposal to close the plant by a majority of 64%.

In the wake of these elections, the Swiss Government issued a statement on 2 October 2000 providing *inter alia* that no limit in duration should be established for the operation of Swiss nuclear installations, as long as prescribed safety levels are observed. This recommendation will be sent to Parliament by March 2001 in the context of the adoption of the revised Atomic Law.