



* October 14th, 1991: A fire in the turbine room of No.2 reactor at Chernobyl seriously damaged the roof of the turbine hall and temporarily shut down the reactor. Normal operations were resumed the next day and Vasily Kostitsky, deputy minister of the Ukraine's environmental protection ministry, claimed the situation was "under control".

* November 1st, 1991: Fire again broke out in a reactor at Chernobyl. According to TASS there was no radiation leak and no-one was hurt.

A cable is reported to have caught fire in a generator room in reactor No.1 which has been shut down since October 18th for scheduled repairs. The blaze was put out by the plant's own firefighters.

Even as early as October 15th, the Soviet Union was worried enough to officially ask the International Atomic Energy Agency to inspect the Chernobyl nuclear station and the protective sarcophagus that surrounds the remains of the reactor.

A further meeting has since been scheduled for Moscow to discuss details of all Soviet RBMK reactors.

By October 30th, though, the Ukrainians decided enough was enough. The Ukrainian parliament finally settled the

long-term future of Chernobyl by voting to close the two remaining reactors completely by 1993. The decision further underlined the republic's determination to take control of its affairs in the face of what is officially viewed as "Moscow's disregard for the fate of the Ukraine".

More than 7,000 people have already died from the effects of radiation, many of them workers taking part in the clean-up operations, claim members of the Ukrainian parliamentary commission on Chernobyl. Soviet officials dispute these figures.

"We were at least a year and a half late with this decision," said Mr Yury Shcherbak, Ukraine's Environment Minister. "The Chernobyl nuclear power plant is the most dangerous nuclear power plant in the world."

His deputies in the parliament further called on the United Nations and other international organisations to help dismantle the complex whose "four reactors continue to pose a major environmental hazard."

But whether the rest of the world is keen to offer something more tangible than good advice to help the Ukrainians put such a potentially dangerous "genie back in the bottle", remains to be seen.

PHILLIP GOSPER

BURN VICTIM SAVED BY WATER-JEL AFTER NUCLEAR PLANT FIRE

Three employees of the Indian Point No.3 nuclear power plant in Buchanan, New York, were burned as a result of an electrical arc and fire involving one of the plant's 6,900-volt breakers. The use of Water-Jel at the scene of this accident was directly related to the saving of one man's life. Steve Van Buren, Fire Protection Supervisor of the NY Power Authority, reveals the details behind the incident.

As it turned out, it was indeed fortunate that the Fire Protection Supervisor at the plant had purchased four of Water-Jel Technologies' Water-Jel gel-soaked fire blankets following a recommendation made by the plant's fire equipment dealer.

The Indian Point No. 3 plant currently has a 100 man fire brigade and 25 member EMT response team. Due to training schedules, all members of these groups had not yet received training in the Water-Jel systems. Fortunately, however, some of the members were familiar with Water-Jel and were at work

on the night of the accident.

In order to understand the seriousness of the accident, one must appreciate the size of the equipment these technicians were working with. The 6900-volt switchgear is approximately 7'x6' high x 36' wide x 4'6" deep. To work on the equipment, the technician must physically enter this cubicle. The potential for such an accident in this area exists primarily due to the high voltage involved.

Technician No.1 had entered the cubicle and was using a meter to 'troubleshoot' a potential loss of power within the switchgear. Technician No.2 was standing behind his colleague, directly in front of the open door. It was at this time that the probe on the meter came in contact with the energised 'bus' (the metal strips in the rear of the switchgear that deliver the electricity to the breaker) causing a tremendous



explosion, electric arc and flash fire.

Technician No.1 was caught inside the breaker while technician No.2, who was standing outside, also received burns. The explosion was felt throughout the plant and Control Room operators immediately dispatched response personnel.

"The feeling of the EMT at this point was that this victim was likely to die. All his clothing and skin was burned off and his eyeglasses had melted to his face..."

Upon arrival at the scene, plant staff were confronted with the two burned technicians. A third plant worker who was also in the area was also injured. He had used a fire extinguisher to put out the flames on the victims' burning clothing. When the extinguisher was empty, he 'beat' out the remaining

Water-Jel Technologies' Water-Jel gel-soaked fire blankets - these products were used to save the life of a badly-burned technician and minimize the injuries to two others following an electrical fire at New York's Indian Point nuclear power plant.

flames with his hands. Thus, a rescuer had also become a victim.

The on-duty EMT immediately assessed the situation. Technician No.1 (inside the cubicle) was found to have third degree burns over 90% of his body. He was unconscious and not responsive. He was subsequently covered with a dry, sterile burn sheet. The feeling of the EMT at this point was that this victim was likely to die. All his clothing and skin was burned off and his eyeglasses had melted to his face.

Technician No.2 was conscious and in severe pain. He had received first, second and third degree burns to his hands, arms, face and chest. Dry sterile burn dressings were also applied to his injuries.

The EMT at this time remembered that Water-Jel Fire Blankets had been recently purchased. He immediately sent two brigade members to the fire brigade equipment room to bring the Water-Jel blankets to the scene. Due to the tremendous amount of fire and heat technician No.1 had absorbed, the dry sterile burn sheet has already started to 'scorch'.

When the Water-Jel arrived at the scene, the dry sterile sheet was removed. The action of pulling the dry sheet off fanned the actual fabric, causing it to burst into flame. The Water-Jel Fire Blanket was immediately applied to technician No.1.

The EMT immediately noticed a change in his patient's condition. The patient regained consciousness and was able to communicate with his rescuers. (The patient later recalled the Water-Jel being applied and, in his own words, says it felt "Damn' good") He was placed on a long board and given oxygen.

Technician No.2 was also treated with a Water-Jel blanket which was cut up to more effectively cover his burn injuries, and further used to treat the other rescuer with the burned hands.

All patients were transported to the local emergency room by the Verplanck

Fire Department ambulance. Upon arrival at the hospital, the two technicians were evaluated by the ER staff. Technician No.1 was immediately transferred to the local burn centre by ambulance, a ride of approximately thirty minutes. Further evaluation by burn centre personnel revealed that technician No.1 had 75% third degree and 15% second degree burns. His condition was listed as "critical". Technician No.2 was later transported via helicopter to a hospital in New England to be nearer to his family. Within days, he was released from the hospital.

The initial days at the burn center for Technician No.1 were 'touch-and-go' during the first two weeks. Once the danger of infection has passed, the long road to rehabilitation and recovery lay ahead. Three months following the accident he was released from the burn centre, but remained on out-patient care and scheduled hospital stays for surgery. In May 1991 he visited his co-workers at the plant and by September he returned to work on light duty. He is now back to work, fully recovered.

In my opinion the use of the Water-Jel Fire Blanket was directly responsible for saving the life of technician No.1. I base this observation on my 15 years' experience as a Fire Service professional and EMT. This basis is supported by the following facts regarding the Water-Jel burn care system:

(1) The progression of the burn was stopped when Water-Jel was applied. The standard dry, sterile burn sheet did not cool the burn and as we witnessed, the sheet itself caught fire.

(2) The ingredients in Water-Jel definitely helped prevent an infection from occurring. Our patient never received an infection from the burn. He was covered with the Water-Jel blanket from the plant to the hospital and then to the fire centre.

(3) The patient remembers being wrapped in the blanket and says it 'felt good'. Thus, psychologically our patient was easier to work with and transport, and his pain was reduced.

For further information regarding this incident, contact Steve Van Buren, Fire Protection Supervisor at the Indian Point #3 Nuclear Power Plant, Buchanan, New York. □

