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US president gives substantial boost for nuclear

New thinking about nuclear energy in the US may be an important turning point for the future of nuclear power plants – both in the US as well as elsewhere in the world.

US president George Bush has confirmed that the US aims to expand the use of nuclear power.

When unveiling the findings of the National Energy Policy Development Group (NEPD) he said: “By expanding existing nuclear facilities, we can generate more electricity without pumping a gram of greenhouse gas into the atmosphere.”

However, Bush stressed that energy production and environmental protection are not competing priorities and that his administration was determined to find a safe and permanent repository for nuclear waste.

The energy policy document says: “Nuclear power plants serve millions of US homes and businesses, have a dependable record for safety and efficiency, and discharge no greenhouse gases into the atmosphere.”

“These facilities currently generate 20% of all electricity in the US and more than 40% of electricity generated in 10 states in the north east, south and midwest.”

Bush said the proposed new energy policy would provide for the safe expansion of nuclear energy by establishing a national repository and by streamlining the licensing of nuclear power plants.

He added: “New reactor designs are safer and more economical than the ones we have today.”

There are several explicit recommendations of NEPD group in the energy policy document regarding nuclear energy:

The NEPD group recommends the following specific components:

To encourage the Nuclear Regulatory Commission (NRC) ensures that safety and environmental protection are high priorities as they prepare to evaluate and expedite applications for licensing new advanced technology nuclear reactors.

To encourage the NRC to facilitate efforts by utilities to expand nuclear energy generation in US by uprating existing nuclear plants safely.

To encourage the NRC to relicense existing nuclear plants that meet or exceed recognized safety standards.

To direct the Secretary of Energy and the Administrator of the Environmental Protection Agency to assess the potential of nuclear energy to improve air quality.

To increase resources as necessary for nuclear safety enforcement in light of the potential increase in generation.

To use the best science to provide a deep geologic repository for nuclear waste.

To support legislation clarifying that qualified funds set aside by plant owners for eventual decommissioning will not be taxed as part of the transaction.

To support legislation aimed at extending the Price-Anderson Act.

“The NEPD Group also recommends that in the context of developing advanced nuclear fuel cycles and next generation technologies for nuclear energy, the US should re-examine its policies on research, development and deployment of fuel conditioning methods (such as pyroprocessing) that reduce waste streams and enhance proliferation resistance.

“In doing so, the US will continue to discourage the accumulation of separated plutonium, worldwide.

“The US should also consider technologies – in collaboration with international partners with highly developed fuel cycles and a record of close cooperation – to develop reprocessing and fuel treatment technologies that are cleaner, more efficient, less waste-intensive, and especially more proliferation-resistant.”

Other recommendations in the policy include:

Enacting “multi-pollutant legislation to establish a flexible, market-based program to reduce and cap emissions of sulphur dioxide, nitrogen oxides, and mercury from electric power generators”.

Increasing exports of “environmentally friendly, market-ready US technologies that generate a clean environment and increase energy efficiency”.

Establishing a new “Royalties Conservation Fund” and earmark royalties from “new, clean oil and gas exploration to fund and conservation efforts”.

IAEA resolution on protection of nuclear materials and facilities

The IAEA general conference held in Vienna on September 21st, 2001, adopted a resolution emphasizing the importance of physical protection of nuclear material in preventing its illicit use, as well as the sabotage of nuclear facilities and nuclear materials.

“The tragic terrorist attacks on the United States were a wake up call to us all,” said Mohamed ElBaradei, IAEA director general.

“We cannot be complacent, ElBaradei said. “We have to and will increase our efforts on all fronts – from combating illicit trafficking to ensuring the protection of nuclear materials – from nuclear installation design to withstanding attacks, to improving how we respond to nuclear emergencies.”

Member states at the conference called on the agency to embark on a thorough review of its programs to see what we can do to enhance security of nuclear material and facilities.

ElBaradei said the agency will be looking at ways to increase its information, advisory and training functions to help member states to ensure that nuclear regulatory infrastructure is in place; nuclear material, other radioactive materials and facilities are properly protected against theft and sabotage; the detection measures and equipment at borders and elsewhere are effective in combating illicit trafficking; plans are in place to respond effectively to such events; and issues regarding nuclear installation safety are addressed.

The IAEA has found that while the level of security at nuclear facilities is generally very high, security of medical and industrial radiation sources is “disturbingly weak” in some countries. It estimates that, in the short term, at least USD 30-50 million will be needed annually in order to strengthen and expand its programs so that they are capable of meeting the “terrorist threat”.

The IAEA has the only international response system in place that would be in a position to immediately assist countries in case of a radiological emergency caused by a nuclear terrorist attack.

Quality management checks ordered at German nuclear power plants

German environment minister Jürgen Trittin has ordered a review of quality management procedures at all of the country’s nuclear power plants in the wake of an incident at the Philippsburg nuclear power plant in October.

The order was announced as the incident, at the second unit of the Philippsburg plant last August, was given a final level-2 rating on the International Nuclear Event Scale (INES). The incident had been provisionally rated as “below scale” but was upgraded due to degradation of defense in depth.

Trittin, said that his decision to call for state-by-state checks to be carried out by nuclear safety authorities followed a “further grave incident” discovered at unit 2 on October 22nd, 2001 during the INES inquiry process.

The INES report, published by the IAEA, said that it was also discovered that the unit had been restarted with insufficient fluid levels in all borated water storage tanks.

Four-year contract awarded to French radwaste agency

The French radwaste management agency, Andra, has signed a first-of-a-kind four-year contract with the French government defining a global approach to waste management.

The agreement formalizes Andra’s responsibility for the long-term management of all French radioactive waste.

The agreement calls for the creation of a central low-level waste storage site by the end of 2003, the completion by 2004 of a reference inventory of all radwaste and associated materials, realization of underground research laboratories as part of ongoing research into the feasibility of permanent geological disposal of high-level waste and a conceptual study into the storage or disposal of radium or graphite-bearing wastes.

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