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NO TO NUCLEAR POWER - HISTORIC VICTORY ITALIAN REFERENDUM

It was clear that a majority of the Italian people is against nuclear power, but was that enough to bring them to the polls in the Pentecost holiday weekend? Because without 50% +1 vote of all Italian voters the referendum would not be valid. Since 1995 no referendum held had been able to conquer that 50% threshold, so that was the real question. The answer is "yes": 57 percent of all voters took the opportunity to vote against nuclear power privatization of water and against Berlusconi.

(728.6139) WISE Amsterdam – Only on June 1, it became clear that the referendum would go ahead. The Corte di Cassazione, Italy's top court, ruled that the referendum could go ahead as planned on June 12-13. The center-right government of Silvio Berlusconi announced in the wake of the Fukushima a two-year moratorium on plans to relaunch the nuclear sector and in doing so, had hoped to avoid the referendum (see Nuclear Monitor 727, 27 May 2011).

Overcome the daunting task of a quorum of 50 per cent + 1 of all Italian voters in the face of a mass media controlled by Berlusconi and a government that was encouraging voters to go to the beach instead of vote on the first weekend of summer vacation for Italian grade school, middle school and high school students was the main task. On Sunday June 12, there was a frenzy of activity in every town and city, on the streets, in the coffee bars, in the town squares, on the beaches, everywhere! The proponents of the referendums threw all caution to the wind as they called to every passerby to go to the polls and not let this important opportunity pass by. This was an incredible mobilization that had a domino effect, as students, families and co-workers pushed one another to vote. Flags sprung up on balconies, stickers on the windows of busses and walls of the metros, with bicyclists up and down the coasts whistling and shouting to get out the vote. Since 1995 no single referendum reached the 50% quorum. On Sunday evening already 41% had voted and victory was possible.

On Monday evening, June 13, the leader of the Italian of Values Party Antonio Di Pietro, who last year launched the petition drives for the referendums on nuclear energy and Legitimate Impediment held a press conference to express his pride and contentment with the outcome of this historic vote, stating that “this was a victory of the Italian People and not of the Political Establishment,” and again calling for Berlusconi to resign from power.

MONITORED THIS ISSUE:

This is a great result also considering that there has been an almost total media blackout on all the four referendum, an institutionally driven blackout with a specific goal: not enough voters showing up to render any outcome invalid.

Over the past two months countless activities of many groups in civil society have been able to break the silence, giving back to the people the democratic right to exclude from their future and from future generations the tragic experiences the people in Chernobyl and in Fukushima have gone through, and still are.

The vote was widely seen as a poll on Italian Prime Minister Silvio Berlusconi, who was a strong proponent of nuclear energy. "Following the decision the Italian people are taking at this moment, we must probably say goodbye to the possibility of nuclear power stations and we must strongly commit ourselves to renewable energy," Berlusconi said.

The Italian government planned to get 25 percent of its energy mix from nuclear power by 2020 and 25 percent from renewables. The referendum precipitated a huge boost in shares of renewables companies.

Sources: Reuters, 1 June & 13 June 2-11; Greenpeace Blog, 13 June 2011; Counterpunch.org, 14 June 2011
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The 1987 Referendum
The November 8, 1987 Italian referendum on nuclear power, was launched after the Chernobyl accident by the Green party and backed by Socialist and Communist party. The referendum rejected the expansion of the country's nuclear power industry by the construction of new nuclear power plants. Voters were actually polled about three (technical worded) issues:
* abolishing the statutes by which the Inter-ministries Committee for the Economical Programming (CIPE) could decide about the locations for nuclear plants, when the Regions did not so within the time stipulated by Law 393; (80,6 % in favor)
* abolishing rewards for municipalities in whose territories nuclear or coal plants were to be built; (79,7 % in favor)
* abolishing the statutes allowing (state-owned energy-utility) Enel to take part in international agreements to build and manage nuclear plants. (71,8 % in favor)
Subsequently, the Italian government decided in 1988 to phase out existing plants. This led to the termination of work on the near-complete Montalto di Castro, and the early closure of Enrico Fermi and Caorso nuclear power plants, both of which closed in 1990.

WINNERS AT INTERNATIONAL URANIUM FILM FESTIVAL

The First International Uranium Film Festival of Rio de Janeiro which ended 28 May 2011, in the historical Manson "Laurinda Santos Lobo". From 34 international productions surrounding the nuclear fuel chain and radioactive risks four winners were selected.

(728.6140) Urânio em Movi(e)mento - The best short film of this first International Uranium Film Festival - selected by the Jury - was a Costa Rican production of director Pablo Ortega of the University of Costa Rica: Uranio 238: La Bomba Sucia del Pentágono, Uranium 238: The Pentagon's Dirty Pool. Isabel McDonald from the San José Quaker Peace Centre of Costa Rica: "Winning this award will help the efforts towards an international treaty banning DU weapons worldwide."

The best feature film - selected by the jury - was a new production by Director Michael Madsen from Denmark "Into Eternity". An impressive film which deals with the philosophical questions of the issues concerning the permanent storage of high-level nuclear waste. The film brings the audience down thousands of meters into a rock formation in the countryside of Finland where the construction of the first high-level nuclear waste storage facility is been built.

The audience award for the best short film were given to: "Césio 137. O brilho da morte", directed by Luiz Eduardo Jorge of Brazil. His documentary shows the events that transpired in a real live tragedy about the release of Caesium-137 into a populated area 1987 in the city of Goiânia, Brazil. This was the worst radioactive accident in Latin America, which cost the lives of many people and the health of hundreds or possibly thousands of survivors.

"Césio 137. O brilho da morte" was produced by Laura Pires as well as the winner of the audience award for the best movie: "Césio 137. O pesadelo de Goiânia". Director Roberto Pires contracted famous Brazilian actors for this important and first ever made film of this nuclear accident in central Brazil. The script of "Césio 137. O pesadelo de Goiânia" is based on statements by the victims and medical personal attending the victims, taken by Roberto Pires at the time of the accident, who himself some years later died from radiation exposure.

A big surprise for the invited guests was the appearance of three representatives of the indigenous peoples of Brazil who gave a musical performance and a prayer to the Uranium Film Festival and its guests. Chief Alfonso Apurina from the Amazon state Acre and his two companions from other indigenous peoples were invited by the festival organizers in respect of their traditional land rights to Brazil and in respect to their struggle to preserve the Old Indigenous Museum of Rio de Janeiro, that is in danger because of construction of projects to accommodate the Olympic Games.

Indigenous people from all over Brazil have been occupying the abandoned first "Museo do Indio" of Brazil beside the famous Maracanã Football stadium since 2005, with the intention of creating their own cultural centre for all the indigenous peoples of Latin America. This "Museo do Indio" was deeded to the indigenous people of Brazil by its creator Darcy Ribeiro in 1954, but left

abandoned since 1972. Since 2010, these indigenous people have been at risk of being expelled from the building and the land it stands on that rightfully belongs to them. And they have no intentions of giving this stronghold to make way for a shopping center as part of the Olympic Games project.

The First International Uranium Film Festival and its Award Ceremony ended with another, a real "bombastic" surprise, "Atomic Bombs on the Planet Earth", the newest production of the famous film director Peter Greenaway was shown to the selected audience. "We received that fantastic short film of Greenaway today", said Festival director Norbert G. Suchanek. "We have decided that Atomic Bombs on Planet Earth will be the Opening Film of the 2nd International Uranium Film Festival May 2012 in Rio de Janeiro!"

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NO-NUKE EU MEMBER STATE COALITION IN THE MAKING

For more than a decade, the idea that EU non-nuclear member states should cooperate to try to phase out nuclear power in Europe has haunted anti-nuclear activists, green politicians and lobbyists from the clean energy sector. In spite of the obvious benefits such cooperation might bring, nothing ever happened. However, the catastrophic events at the Fukushima Daiichi nuclear power plant might have changed that: At a meeting in Vienna late May, representatives of eight European non-nuclear countries decided to form a coalition to combat climate change and develop sustainable energy sources without relying on nuclear power.

(728.6141) Niels Henrik Hooge - On May 25, ministers and heads of delegations of Austria, Greece, Ireland, Latvia, Liechtenstein, Luxembourg, Malta and Portugal signed a common declaration [1] to be presented at the next meeting of the EU Environment Council on 21 June in Luxembourg. Among the principal issues under discussion were the environmental aspects of nuclear power and the potential for phasing it out in Europe. The eight countries emphasised their view that nuclear power is not compatible with sustainable development and that it is not a means to combat climate change. They also stressed the need to draw the lessons from the events in Japan in European energy policy. Among others, this means implementation of the highest possible standards for nuclear safety - including closure of nuclear reactors that cannot be upgraded within a reasonable time frame; but also that renewable energy and energy conservation must play a major role in the future.

Probably the real thing

Considering that it is not the first attempt to form an alliance against nuclear power, it seems appropriate to take critical look at its viability. Back in 2007, environment ministers from eight European countries launched a similar initiative to reduce the role of nuclear power in European climate policy and published a declaration much like the one from Vienna [2]. However, even though the initiative included large countries such as Germany and Italy and even non-EU member states such as Norway and Iceland, it quickly petered out. So what are the prospects of success this time around and what could be the role of the coalition?

At least three things are different - two of them beneficial for a no-nuke coalition and the third more complex: The first is of course the Fukushima disaster, which will not disappear any time soon and continues to undermine the so-called nuclear renaissance. The second is that Germany – the biggest economy in Europe – recently re-decided on a relatively quick nuclear phase-out, substituting nuclear with renewable energies. It is reasonable to assume that Germany, not to be put in a position of disadvantage, will be forced to strike a blow for renewables at the European level at the expense of nuclear power. Germany's main priority will probably not be improvement of nuclear security or safety or environmental issues, but the need for a level playing field for renewable energy sources in the European energy markets. This could increase the pressure to reform or abolish the Euratom Treaty, which is considered the backbone of the European nuclear support infrastructure. In all circumstances, the probability of the no-nuke coalition having an impact will increase because of this development.

The coalition must walk on two legs

The third factor is that the coalition is not only a no-nuke, but also a non-nuclear coalition. None of the member states involved in the initiative have nuclear programs. This might warrant a common outlook, but at the same time constitutes an obvious weakness: The political capital needed to develop and push for a coherent policy on nuclear issues outside of the countries' own borders is very small, considering that there is very little domestic interest in this subject. Furthermore, virtually no green NGOs in these countries have nuclear power on their agenda, so both the general level of motivation and knowledge is low. The only exception is Austria, whose NGOs and shifting governments have over the years taken a keen interest in the nuclear policies of its neighbouring countries and in Europe. It is not coincidental that the concept of a coalition of no-nuke EU member states was developed in Austria in the nineties [3].

On the plus-side, it must be recognised that the coalition constitutes an immense leap forward. Counting in the three countries that participated in the Vienna meeting as observers, but did not sign the declaration - Cyprus, Estonia and Denmark – the coalition covers 40 per cent of all EU member states. Its greatest asset could be its capability to transform into a coalition that is able 'to walk on two legs'. This would imply putting together a political package combining nuclear issues of moderate political appeal – at least in non-nuclear countries - with issues pertaining to renewables that potentially could attract a lot of attention. Reforming or abolishing nuclear support infrastructures is not possible without at the same time developing an institutional framework

furthering renewable energy sources. This might open the door for the newly developed concept of a European Community for Renewable Energy (ERENE) [4]. Such a community could be established on the basis of existing EU treaties as a co-operation between at least nine member states or on a new, separate treaty alongside EU and Euratom.

In all circumstances, we will know more when the coalition has its next meeting in Athens in the fall.

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A NEW DUTCH REACTOR NEAR CURRENT BORSSELE NPP?

While the Germans have returned to their former decision to phase out nuclear power in the 2020s, the Dutch government wants to extend its nuclear capacity. Currently, the Netherlands has one operating nuclear power plant in Borssele (512 MWe), located in the Southwest of the country. A second one, located in Dodewaard (58 MWe), was closed in 1997.

(728.6142) Laka Foundation - Even before the construction of the Borssele nuclear power plant, which generated its first electricity in 1973, there were plans to build another nuclear power plant in Borssele. Finally, in 1977, the regional government declared itself openly against more nuclear power stations. In the mid 1980s the Dutch government again proposed to build more nuclear power capacity, among which in Borssele. Because of the nuclear disaster in Chernobyl, in April 1986, the public opinion against nuclear power was stronger than ever, and the plans were put on hold.

In the course of the first decade of the new millennium, public opinion turned in favor of nuclear power. More and more people became susceptible to arguments of the nuclear industry that nuclear power reactors do not produce any carbon dioxide and have to be considered as the best alternative for power stations that are fueled by fossil fuels, like hard coal and gas.

The current Borssele nuclear power plant is owned by the electricity utility EPZ, a joint-venture of the utility companies Delta (50%) and Essent (50%). In 2009, Essent was bought by the German energy giant RWE. The statutes of EPZ, however, prescribes that the nuclear power station has to be owned by public bodies. Delta is owned by provinces and municipalities as well as Essent was. The sale of Borssele to RWE, a company quoted on the stock exchange, is therefore inconsistent with the statutes. The court ruled that the Essent part of EPZ could not be included in the sale to RWE. In order to change the statutes Essent needed the cooperation of Delta. This utility however refused to do so and was supported by their stakeholders and the then minister of Economic Affairs.

Meanwhile, in July 2009 Delta had launched the application process to obtain a license for the construction of a second Borssele nuclear power plant with a first memorandum that has to lead to a framework of guidelines for an Environmental Impact Assessment. Though the social-democrats in the then center-left government blocked the building of new nuclear power plants, Delta was looking forward to a right-wing government that should back the plan of a new nuclear power plant. The utility hopes to submit a license request to the current (pro-nuclear) government by the end of 2011. If everything is settled successfully (in Delta's point of view), the request for a construction permit can be submitted in 2012, after which the construction can start in 2013. Cost are estimated on €4 to 5bn and the construction has to be completed in 2018.

The EPZ-part of Essent, which could not be sold to RWE, was transformed by its shareholders (six provinces and municipalities) to the Energy Resources Holding (ERH).
In September 2010, to everybody's surprise, ERH started the formal procedure to obtain a license for the construction of yet another nuclear reactor at Borssele. ERH plans to submit an Environmental Impact Assessment in 2012, and hopes to obtain all necessary licenses in 2014. Construction then can start in 2015 with first power in 2019. Formally RWE is not involved, but practically the shareholders of ERH have regular talks with RWE to determine the strategy in their struggle with Delta.

Early November 2010, Delta entered into an agreement with the French utility EDF to carry out a joint investigation into the feasibility of a new Borssele reactor. The current right-wing minority government, supported by an extreme right-wing party, welcomes the plan for a new nuclear power station. In the months after the announcement another French utility, GDF Suez, and the Swedish Vattenfall offered to take part in the project.

In January 2011, after many months of struggle and unremitting suspense, the Raad van State, the highest court, in the Netherlands, decided RWE could not buy the Essent part of EPZ. In May however, Delta and RWE reached an agreement on RWE buying a 30% share (instead of 50%) of the Borssele nuclear power plant, leaving the majority of shares in public hands. In fact, this means that ERH will be dissolved later this year when the agreement is finalized: the largest part is sold to RWE and the remainder to Delta.
An interesting question is what will hap-

pen with the ERH application for a new nuclear power plant; will RWE continue the application?

A spokeswoman of Delta mentioned to the May 18 edition of the Dutch Het Financieele Dagblad newspaper and the German Westdeutscher Rundfunk (WDR) that RWE will have a 20% share in Delta's new Borssele nuclear power plant. This message was spread by other Dutch and German media. However, in a reaction on Tuesday June 14, spokesman Couwenberg of Delta told WISE Nuclear Monitor that talks with RWE are ongoing: nothing is sure and previous statements were premature.

Meanwhile, Italy has joined Germany and Switzerland in turning its back on nuclear power, after a recent public referendum. It is still unclear what the consequences will be for the rest of nuclear Europe, among which the Netherlands.

What is certain, is that antinuclear opposition is growing again. In the Borssele region, a newly established coalition of local political parties, ngo's and individuals is working hard and gaining ground. Public opinion in the area is swifting slowly towards a more critical view on nuclear power.
Additionally, another coalition was recently formed on a national level by a large number of environmental organizations and all left wing political parties who joined forces for a demonstration on April 16, 2011. About 10.000 people came to demonstrate in Amsterdam, making it the largest antinuclear protest in the Netherlands since the early 1980's. This coalition (with a consensus: 'no new nuclear power plants') did not dissolve itself after the protest but is institutionalizing itself and will become a force to reckon with.

A new reactor in the Netherlands is not a done deal anymore, although it seemed like that for a long time...

Sources: Financieele Dagblad, 18 May 2011; WDR, 17 May 2011; NRC Handelsblad, 4 November 2010;
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HAUNTED BY HISTORY: NUCLEAR NEW BUILD IN BRITAIN

Part III: After Fukushima

Earlier reports in the Nuclear Monitor (714 and 715) about nuclear new build in Britain stressed how the project of a 'Nuclear Renaissance' is haunted by its own Nuclear Dark Ages – legacies from the long history of civil nuclear power in the UK. These legacies include accumulations of radioactive waste, the burden of decommissioning generations of old reactors and a history of explicit public subsidy and failed sell-offs that show the commercial non-viability of nuclear power. The Sellafield site, a decommissioning nightmare and a nuclear House of Horrors, concentrates these problems in a single space. The memory of Chernobyl is also a figure in this nuclear dance macabre. It is assiduously minimised officially, but documented and commemorated by critical health researchers, anti-nuclear campaigners and charitable groups concerned with children's health and well being in the contaminated areas.

(728.6143) East Midlands Campaign for Nuclear Disarmament - Once Westminster governments, from about 2004, adopted new nuclear, they had to try to lighten this weighty inheritance. The main strategy, never wholly realised, was to split off new nuclear from old as a new dawn, a renaissance without a dark ages. This splitting occurred in political discourse, but also institutionally and financially. Disposing of the legacy was to be overseen by a new state institution, the Nuclear Decommissioning Authority, and financed mainly through taxation, while new nuclear was to be a work of 'the market' – of private companies with 'no public subsidy'.

In this context, not only is Fukushima a terrible unfolding disaster for the Japanese people, it is also a threat to the nuclear revival. It threatens to disrupt the carefully constructed dichotomies of civil versus military, past versus present, public versus private, good atom versus bad atom. It is a powerful reminder of the dangers of civil nuclear power and its military connections. Happening so near the 25th anniversary of the Chernobyl disaster gave it additional resonance.

The Conservative/Liberal-Democrat government, having largely adopted Labour's nuclear plans, must now manage the challenge of Fukushima along with the other nuclear contradictions. It must also find solutions to its own inner conflicts on nuclear questions.

Fukushima from a British Perspective
Fukushima is as serious a nuclear accident as Chernobyl, a slow, unfolding tragedy, On 12 April, over a month after the earthquake and tsunami, it was declared a Level 7 accident – the same as Chernobyl. According to the USA's Nuclear Regulatory Commission (NRC) by 7 April the four damaged Fukushima reactors had released only a 1/10 of the radioactive material released from Chernobyl's single reactor yet contained much more. In early June, after an IAEA inspection, the Japanese government more than doubled its estimate of leaking radioactivity from 370,000 terabequerels to 770,000, perhaps 20% of the Chernobyl count. Partly because of the Chernobyl anniversary, partly because of the wider catastrophe, the nuclear aspects were extensively covered in mainstream media. This was accompanied, however, by attempts to minimize the human impacts of both 1986 and 2011.

Though media analysis is not the aim here, it would be interesting to compare the largely pro-nuclear coverage in England with Germany, Scotland or even the USA, to explore the different nuclear cultures.

Despite official and media denials, each week brought worse news, on top of the heart-breaking scenes of destruction by quake and wave. At least eighty thousand people have been uprooted by the nuclear disaster – possibly for their lifetimes, certainly long-term – from an area 12 miles (20 km) around the reactors – and also from settlements beyond the exclusion zones, to the North West where the prevailing winds blow. The distribution of contamination has been uneven, according to landscape and weather, so no uniform perimeter can encompass it. In the latest (June) official reports further evacuations are envisaged. There has also been 'voluntary' flight from the region. The food chain, water supplies and the neighbouring seas have been polluted by iodine-131 (with a half-life of days) and caesium-137 (with a half life of 30 years). Raised levels of caesium-137 have been detected in school playgrounds in Fukushima province outside the exclusion zone, prompting controversies about 'safe doses' for children and vigorous self-help solutions by parent groups.

Caesium-137 is used as an indicator of contamination as in the post-Chernobyl mappings, but this does not mean it is the only radionuclide released. The spent fuel rods in the cooling pools (at least one of which developed cracks) lost their safety cover of water and, apart from the hydrogen explosions that sent plumes into the air, we now know there were meltdowns in three reactors and leakages from the pressure vessels ('melt throughs') in at least one. The release of plutonium, uniquely produced in reactors and very long-lived and poisonous to life, seems likely. Again this was confirmed in June when small amounts of plutonium were reported a mile outside the plant gates.

Workers at the site, like the 'liquidators' at Chernobyl, will have suffered dangerous levels of radiation the consequences of which may not show for decades. Foreign governments have taken precautions for their nationals that suggest dangers well outside the exclusion zone. Small traces of radionuclides from Fukushima have been identified in Idaho, Washington State and even Britain. It is much too soon to count the full health costs, or boast, as some British commentators have, about the resilience of the technology. The disruption to everyday life is palpable and, as protest begins there, Japan is once more the suffering and active centre of a global anti-nuclear movement.

The environmental dispersion of radionuclides is not over. NISA, the much-criticized Japanese nuclear safety watchdog, has recently assessed that no more than 1% of the fuel from three units has so far leaked. There remains a danger of more hydrogen explosions, spewing radioactive materials into the air. There are about 60,000 tons of contaminated water in the basements of the reactor buildings. On the 18th April TEPCO acknowledged it may take as long as 9 months to get the reactors 'under control', let alone encase buildings full of radioactive material.

Applying Fukushima: How Accidents Can Happen.

Analysis of Fukushima suggests that three conditions, coming together, prompt accidents.

1.A design fault in a reactor,

2. A failure of regulation and/or of company compliance.

3. An unexpected event that shows up these weaknesses.

Due to the intrinsic volatility of fission, design problems are common. Regulators identify some of these when they assess a new design. There is genuine expertise and a real culture of safety in regulative bodies, hence the protracted 'generic' UK approval process for both EPRs and AP1000s. If, however, governments are committed in advance to nuclear, the regulators, who are never more than semi-independent, are under pressure to approve an available design. There is also much exchange of personnel and expert communication with the nuclear industry.

Other problems emerge after the design has been approved often at the building stage – witness the long delays and soaring costs for the first EPRs being built in Finland and France, or similar delays over the first PWR reactor at Sizewell. Even so, some weaknesses are discovered only when the reactors are already running and things go wrong.

This was the case with the failed cooling systems at Fukushima. The early models of water-cooled reactors depend on external power and water supplies that are vulnerable to events like earthquakes and flooding. It seems that the earthquake had already damaged the cooling systems at Fukushima No.1 before the tsunami struck (Nuclear Monitor 727). Recognition of this weakness has had surprising consequences. There is only one civil PWR reactor in the UK – Sizewell B on the Suffolk coast - but the navy's whole fleet of nuclear submarines, including the Vanguard class that carries Trident nuclear missiles, is powered by early PWRs. Following expert demands for future submarines to be fitted with PWR3s with 'passive systems', the cost of replacing Trident-carrying submarines has had to be raised. This confirms the links - in case we had forgotten them - between civil and military applications and their risks.

Inspectors of nuclear installations in Britain between 2001 and 2010 reported over 1,700 incidents of non-compliance. At Fukushima the permitted volume of spent fuel rods stored in pools on the site was exceeded, making them more vulnerable to a water-cooling breakdown. During June's post-mortem, conducted by the IAEA as well as NISA, it has been admitted that the anti-tsunami engineering was also inadequate. TEPCO has a poor compliance record under a CEO who was 'an enthusiastic cost-cutter' (Guardian, 30 March 2011). On the side of regulatory machinery, NISA lacked independence both from government and the industry and communication between the company and the government was poor, even during the crisis.

Stressing discrete deficiencies like these, however, can hide the larger structural problems of which they are symptoms. A higher sea wall at Fukushima would barely have touched the endemic perils of a large-scale nuclear industry in a land prone to earthquake and tsunami. Similarly, the conflict between economy and safety is a structural feature of privatized nuclear industries, as the financial collapse of TEPCO and the travails of Japan's regulators show.

Regulatory regimes have a fundamental role of public reassurance. Though, in Britain, minor incidents are reported, they are usually limited to specialist or local media. When bigger stories break, a chief role of regulative bodies is to insist on palliative action and new forms of micro-management. It takes a Fukushima to lay bare deeper patterns of complicity between governments, their experts and companies. Regulatory bodies and expert institutions, like the IAEA and the Commission on Radiological Protection (ICRP) internationally, or the Office for Nuclear Regulation (ORN) and Committee on Medical Aspects of Radiation in the Environment (COMARE) in the UK do attend to safety and the measurement of risk, but they are also

under pressure not to reveal the whole truth if it undermines nuclear power as such. COMARE's recent report, reviewing the evidence on infant leukemia, including the KiKK study (Child leukemia in the proximity of nuclear power plants), is a case in point. It confirms, as Ian Fairlie notes, the widespread finding of raised rates of infant leukemia within 5km of nuclear power stations, but refuses to give it any significance, arguing that causes must lie elsewhere than proximity to power stations.

Unexpected events happen - as we all know from our own lives. The equivalent in the UK, to a major earthquake and a tsunami (which might have been predicted in NE coastal Japan) might be a major flooding episode on England's East coast which is vulnerable to tide, erosion and sea rise. The fact that the French and British governments wish to exclude terrorist attack from the EC's 'stress tests' of power stations (Nuclear Monitor 726) suggests that a genuine danger is being hushed up. When it comes to assessment of risks, the nuclear story is littered with examples of technological hubris. In 1983, the Soviet head of the IAEA's Energy and Safety Department boasted about the safety planning for a new nuclear plant being built in Ukraine. The name of the plant was Chernobyl.

Easing in Nuclear: Coalition Policies

To understand official responses to Fukushima in Britain, we have to stress the strength of the political investment in new nuclear. Since the May 2010 general election, it has become clear that the new government is following the same pro-nuclear policy as New Labour, though with delays for yet more 'consultations'. The political differences within the coalition on nuclear matters are being handled with some tactical skill on the Conservative side. During the election the Liberal-Democratic Party (Lib-Dem.) opposed both the replacement of the Trident and the building of new nuclear power stations, The coalition agreement, however, adopted the Conservative pro-nuclear line, while allowing Lib-Dems to dissent, so long as this did not threaten the parliamentary majority. So in its pursuit of power in government, the Lib-Dem party has been 'beheaded' by the old device of incorporating the leadership and disorganising the membership. As the Coalition edges towards a mainly nuclear solution, it is a Lib-Dem Secretary of State for Energy and Climate Change (Chris Huhne) and a Lib-Dem Secretary of State for Business, Innovation and Skills (Vince Cable) who lead the way.

The coalition remains committed to a future energy mix that includes new nuclear. It works closely with the nuclear industry. It has reduced the permitted sites for new build from ten to eight, all sites of existing reactors, It has changed planning procedures, retaining Labour's relative disempowerment of local agencies but replacing its semi-independent commission with government ministers and departments as final decision-makers. In the same spirit, the Secretary of State for Local Government and Communities recently over-ruled local councils and popular referendum (voting 98% against) in order to approve the siting of a low-level nuclear waste dump near villages in Northamptonshire. This minimally engineered landfill site is likely to become the main repository of low-level nuclear waste from southern and central England (For the previous history of the Kings Cliffe conflict see Nuclear Monitor 713).

Ministers have continued to insist that there will be no public subsidies. At the same time, they have promised a carbon price floor of £16 a ton by 1 April 2013, a level that would benefit 'the existing nuclear sector' by £ 50m (US$82 or 57 euro) a year, twice as much as green producers. While inheriting Labour's insistence that companies must have approved financial and technical plans for decommissioning and waste disposal before new construction begins, they are introducing a new clause (Energy Bill, Clause 102) that will prevent renegotiation of these agreements should costs rise. This allows for future public bale-outs. To cover the un-insurabilty of nuclear it is necessary to set a limit to a company's liabilities. Under the Paris-Brussels Convention EU states can set an upper limit of Euro700m (US$ 1.01 billion). Having started with a figure even more favourable to energy companies, the Coalition is now consulting on a £ 1bn (US$1.63bn or 1.13bn euro) limit. In any case these are subsidies designed to relieve investor anxieties. For legacy waste and the decommissioning of old plant the coalition retains Labour's solution - public finance for new private consortia.

These forms of positive support for nuclear are accompanied by discouragement of large-scale carbon-limited alternatives. Most recently funding has been withdrawn from large-scale solar projects and a tax has been imposed on the remaining reserves of North Sea gas. Many independent green energy producers are critical of coalition policies, while the Confederation of British Industries has criticised a lack of direction in renewables policy. The UK is currently spending just over half of what France is spending and under a third of Germany's spend on stimulating green innovation. Nor is any effort being made to limit the current rise in fuel prices, which hit consumers in hard times but benefits the same large companies that are pursuing nuclear solutions. The relative newcomer and major nuclear player EdF is rapidly increasing its UK market share. It is not yet clear how the dead stop to nuclear ambitions in Germany will affect the UK operations of RWE and E.ON, nor how Fukushima will affect investment decisions generally, but it is clear that every effort is being made to ease in new power stations in ways that amount to subsidy.

Handling Fukushima: Enter the Regulators

Unlike Germany, Switzerland and Japan itself, the British government, like France and the USA have chosen to stick with nuclear. The strategic, persuasive role of the regulative institutions is clear here, with signs of international co-ordination.

The main British response to Fukushima was to 'pause' new nuclear, meet with 'representatives of the nuclear industry' and commission Chief Nuclear Inspector Mike Weightman, to report on nuclear safety in the light of the disaster. It was clear from the beginning that Weightman would erect no barriers to new nuclear. As Energy Secretary Chris Huhne put it 'I want to ensure that any lessons learned from Mike Weightman's report are applied to UK's new build programme'. Weightman himself was equally reassuring, calling Fukushima 'unprecedented' and aiming primarily 'to add to our very robust safety standards and arrangements'. In something of a British coup, Weightman was also appointed to head the IAEA's team to inspect Fukushima from May 27. As early as May 18, and before the Japan inquiry, he produced an "Interim Report' the main conclusion of which was that 'there is no need to curtail the operations of nuclear plants in the UK but lessons should be learned' (Office For Nuclear Regulation 18 May 2011). While earthquake and tsunami were 'far beyond the most extreme natural events that the UK would be expected to experience' he nonetheless listed 25 main areas where companies and the government should review safety arrangements, including flood defences, fuel rod storage, electricity supplies and cooling systems. The Report was imme-

diately accepted by the Minister and by the nuclear industry leaders who were consulted in its preparation and are applauded in its pages. EdF welcomed the report 'which will further enhance our strong nuclear safety performance and new build plans'. The issuing of the next Energy National Policy Statement – the basic document for future energy development - will follow 'as soon as possible' and will not await Weightman's full report in September.

In this way reference to regulators has been used as a way to defend and even speed up lagging policies. The press, the companies and their corporate lawyers have hailed the interim report as 'a green light' for nuclear new build.

Sources; Press (mostly on line) in UK, Germany, Japan and USA, especially the Guardian, Independent, Wall Street Journal, The Japan Times and Der Speigel (in English); COMARE, 14th Report, (2011), Dr Ian Fairlie, comment on COMARE published by the nuclear Free Local Authorities www.nuclearpolicy.info/docs/.../A196_(NB82)_COMARE_report.pdf; Parliamentary Debates; NuClear News No. 29 May2011; Company and corporate legal sources e.g. nuclearmatters.co.uk; www.pinsentmasons.com; Office for Nuclear Regulation, Health and Safety Executive, 'Fukushima - Interim Lessons Learnt'.
Contact: Richard Johnson, Chair East Midlands Campaign for Nuclear Disarmament

LITTLE STRESS WITH STRESS TEST

The stress tests for European Union (EU) nuclear power plants were suggested by the Austrian Minister for the Environment right after the Fukushima disaster, without concrete ideas how they should be performed. The idea was quickly adopted by Brussels and hijacked by the nuclear establishment, namely WENRA. Stress tests are defined as: "*Reassessment of safety margins of nuclear power plants in the light of the events at Fukushima: extreme natural events challenging the plant safety functions and leading to severe accidents.*"

(728.6144 Global 2000 – The Western European Nuclear Regulators' Association (WENRA) outlined a proposal, which was put up for public commenting until May 5. Slightly more resistance than expected became visible in the run-up to agreeing on the WENRA stress test outline by EU member states: ENSREG, created in 2007, the until this point hardly known Group nuclear regulators (European Nuclear Safety Regulators Group) represents also the non-nuclear EU-27 countries. In ENSREG, some countries, mainly Austria and Germany, did not accept the WENRA suggestions and asked for much more stringent testing - with outspoken support by EU Commissioner Oettinger, wanted more stringent stress test. However, the operator countries tried to stay in the usual routine of testing– under the political leadership of UK and France.

Negotiations were really tough, especially the EU Commission warned that negotiations might break down and no stress test and nothing similar would be achieved. The compromise was presented on May 25. (see box: EC-Memo)

Yes: plane crash will be included in the tests – but only in an implicit manner
No: Terror is not a task of majority of ENSREG regulators, therefore terror attacks cannot be included. This matter will be discussed with the Council to determine who is responsible (intelligence, police etc.).

This part of the stress test is really not clear, it is a compromise, because Austria and Germany wanted to include air crashes, but the big nuclear countries are against. Therefore the robustness of nuclear power plants in case of external impacts are stressed regarding their ability to guarantee cooling and safe shut down (ultimate heat sink and power supply). An explosion near the plant or an air crash both challenges the structure of containment and other essential buildings directly or for example due to a fire. Severe accident management is stressed in all these events. In this context the robustness of structures, systems and components has to be proofed; weak points are to be identified and improvements should be proposed. Subject of the stress test is not the initiating event (air crash, flooding, explosion or fire) but the capability of the plant to maintain, control, safe shut down and core cooling without external support as long as necessary (the lesson from Fukushima: it could be weeks to reclaim control over the nuclear power plant).

The Stress test is defined as: "Reassessment of safety margins of nuclear power plants in the light of the events at Fukushima: extreme natural events challenging the plant safety functions and leading to severe accidents." (ENSREG Annex 1 EU 'Stress test' specification)

The stress test will be conducted in 3 phases:
-1: started already on June 1: the operators/utilities make a report based on stress test criteria
-2: until August 15 the reports of the operators will be submitted to the national regulators, they will review the reports until September
-3: September: the European part of the test starts; teams from member states conduct peer reviews, also in the field to check the reports of phase 1 and 2 as well as the nuclear power plants. Those teams will consist of different experts from national regulators and EU Commission experts.

The Council will receive the final report for 9 December meeting. EU Commission might suggest measures on how to continue. Tests will be prolonged into 2012.

In addition: In mid June, the member states energy ministry representatives will invite the EU neighbouring countries (Switzerland, Russia, Ukraine, Armenia and Turkey) to join the stress test effort. Switzerland already presented the first stress test results, at the same time the Swiss government decided the phase-out.

The information which has to be prepared by the operator is listed in Annex 1:
* All natural disaster esp. earthquakes and floods, need to be reassessed, in terms of return period and severity;
* The evaluation methodology has to be described as well as the reasons for the chosen design basis; and a conclusion on the adequacy of the design basis.
* Combinations of those disasters should be included.

* Provisions to protect the plant against natural disasters
* Plant compliance with the current licensing basis

Evaluation of safety margins, weak points and provisions to improve the robustness are also to be specified; In the end assessment of the range of disaster severity the plant can withstand without losing confinement integrity.

The most important functions needed during any emergencies in a nuclear power plant should be secured: Availability of power supply, and heat removal must be evaluated regarding redundancy and diversity. The time power sources and water supply can operate without external support has to be assessed. Provisions to prolong this time and increase the robustness of the plant are to be indicated. An evaluation of robustness of essential structures, systems and components which are needed for severe accident management is also foreseen.

A lesson from Fukushima is not that not only one reactor, but several plus the spent fuel pools can be affected by a major (natural or man-made) disaster at the same time.

The set-up of the stress test as described above might lead to useful results. Reports of each phase will be made public. It will be crucial that the public stays involved and closely follows the process, because the stress-tests are voluntary and the extent and depth of testing will be determined by national regulators. Some of the regulators already made clear that they do not expect to go much further than their routine testing. The first one to state that was the ENSREG chairman Mr. Stritar who pointed out the regulators are continuously testing and improving nuclear safety in their countries, also the Czech regulator does not see much news, only admitted that the issue of flooding might have changed since the plants were designed and sited due to climate change.

A quick calculation of high-risk reactors – older than 30 years (44 reactors) or lack of containment (12 reactors) or situated in a seismic region (5 reactors) and the 6 BWRs – gives the number of 67 reactors out of the 143 to be tested in the EU.

Interesting detail: EU Commissioner Oettinger believes, that the EU Commission will be invited when planning of new NPP is on the table. However, Bulgaria already announced that the planned NPP Belene is not to be stress-tested. The EU Commission also announced that the safety directive will be updated soon.

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EC- MEMO 11/339 of 25 May 2011:
"What will be assessed in the stress tests?

It will be assessed whether the nuclear power plant can withstand the effects of the following events:
1- Natural disasters: earthquakes, flooding, extreme cold, extreme heat, snow, ice, storms, tornados, heavy rain and other extreme natural conditions.
2- All man-made failures and actions. These accidents can be: air plan crashes and explosions close to nuclear power plants, whether caused by a gas container or an oil tanker approaching the plant, fire. Comparable damaging effects from terrorist attacks (air plane crash, explosives) are also covered."

IN BRIEF

Municipalities try to block Danish plans for a final LILW repository. The five Danish municipalities that host the six sites designated by Danish Decommissioning (DD) as a potential final low- and intermediate-level radioactive waste repository (see In Brief, Nuclear Monitor 727, 27 May 2011) have all refused to host it. On 26 May they sent a letter to the Danish interior and health minister, Bertel Haarder, suggesting that Risø National Laboratory on the island of Zeeland, where almost all of the radioactive waste has been produced at three research reactors, should be the place, where the waste is kept in the future. If that is not possible, a deal should be struck to send the up to 10.000 cubic metre radioactive waste abroad to a country experienced in dealing with it. The municipalities were dissatisfied that they had not been consulted in advance and that they had to hear of DD's recommendations through the press. The minister dismissed the protests, arguing that the decision where to place the waste is several years off in the future and that there would be plenty of time to discuss the final location. However, locating the waste will not be up to him because the Danish interior and health ministry that has so far overseen the process is expected to give up its responsibilities after the completion of the pre-feasibility studies that has now been submitted. Since 2009 three other ministries have been fighting each other in order not to have to take charge of the project. The whole process has been heavily criticised in the media as well as from political opposition parties. Most recently, the Swedish NGO Office for Nuclear Waste Review (MKG) has criticised DD for not acknowledging that some of the waste is high-level radioactive waste and that it has failed to distinguish between short and long lived intermediate-level radioactive waste. According to MKG, apart from being designed to store only the short lived low- and intermediate-level waste and not the long lived, the planned Danish repository does not live up to Swedish standards, mainly because the safety analysis is too short-term.
Ingeniøren, 29 March 2011 / Jyllandsposten, 15 April 2011 / Radio Denmark, 26 May 2011

Sit-in against Jordan nuclear program in capital Amman. On May 31, Jordan witnessed its first anti-nuclear action. Not a spectacle in terms of number of people and methods applied, the participants comprised many concerned Jordanian citizens who are worried of the highly dangerous potential impacts of nuclear energy in Jordan. It included people from various disciplines of life, connected with their fear about the country's nuclear program, which calls for the establishment of a 1,000 megawatt (MW) nuclear reactor. Wearing black T-shirts reading "No to a nuclear reactor", the 40 protesters expressed concern over the effects of a nuclear reactor and uranium mining on public health and the environment.

Basil Burgan, an anti-nuclear activist and part of a coalition of 16 NGOs, said the demonstration was the “continuation” of efforts to take Jordan’s nuclear ambitions off-line. “We have come to a point where nuclear power has begun to take priority over solar and wind energy and we want to say that a small desert county like Jordan has no need for a nuclear power program,” he said on the sidelines of the sit-in,
Adnan Marajdeh, a resident of the Hashemiyyeh District near the planned site of the country’s first reactor in Balama, some 40 kilometers northwest of the capital, said there has been growing concern among local residents over the social and environmental impact of the plant. “We already suffer from the effects of the Samra Power Station, the Khirbet Al Samra Plant, a steel factory… now they have to put a nuclear power plant on top of us as well?” added the military retiree, who is president of the Jordan Environment Protection and Prevention Society.
Despite a resurgent opposition to nuclear power, Jordan is expected to select one of three short-listed vendors - Canadian, Russian and French-Japanese technologies - by June 30 for the construction of the countries first nuclear power plant.
Jordan Times, 1 June 2011 / Blog Batir Wardam at: http://bwardam.wordpress.com/category/anti-nuclear/

UK: No stress-test for Sellafield.
Media reports early June cited a British government spokesperson as saying that Sellafield would not be one of the 143 nuclear reactors across Europe to undergo a “stress test”. The spokesperson explained that the UK decision was based on the fact that Sellafield was a nuclear processing facility and not a power plant, therefore it did not meet the EU criteria for stress-testing. But Sellafield’s exclusion causes Irish consternation and the "renewed goodwill and neighbourliness between Ireland and Britain that has followed Queen Elizabeth’s successful visit to these shores" is facing fresh peril.
The Irish government do not seem to be taking no for an answer - a spokesperson for Environment Minister Phil Hogan said it was the department’s “understanding and expectation” that the stress test would apply to Sellafield, following a bilateral meeting on the issue in March.
“Sellafield cannot be exempted from vital safety health checks because of a technicality. It remains an active nuclear site and therefore poses risks like any other. The UK authorities should be willing to put Sellafield to the stress test, even if it’s not covered by the EU proposal, as it still represents a major safety concern for Irish citizens,” said the Fine Gael MEP Mairead McGuinness.
www.OffalyExpress.ie, 4 June 2011

EU: directive to export radioactive waste. EU member states should be able to send their radioactive waste to non-EU countries according to the EU Energy Committee. Voting on a draft directive on the management of spent fuel, MEPs agreed that countries should be able to export radioactive waste outside of Europe, as long as it is processed in accordance with new EU safety rules.
Under the proposed directive, each EU state must create programs to ensure that spent fuel and waste is "safely processed and disposed of", as well as holding plans for the management of all nuclear facilities, even after they close.
MEPs also backed stricter rules for the protection and training of workers in the industry, agreeing that national governments must ensure sufficient funds are available to cover expenses related to decommissioning and management of radioactive waste under the "polluter pays" principle.
The EU Parliament's final vote on the directive will take place in June.
www.environmentalistonline.com, 27 May 2011

Albania moves away from nuclear. Maybe it was unlikely already but Albania moved one step away from nuclear. Albanian Premier Sali Berisha hinted May 7, on the fifth anniversary of the European Fund for Southeast Europe that the country is reconsidering previous plans for the construction of a nuclear power plant. Despite not declaring a definitive step down from the project, Albania’s Prime Minister made reference to the incident at Fukushima and Germany’s decision to close all nuclear plants by 2022 as a sign his government might be moving away from plans to build a nuclear plant. At the same time, according to a report by Top Channel, Berisha asked EFSE to help provide loans to investors willing to build new hydropower plants, meaning that for the time being Albania’s priority will be water generated energy.
www.Balkans.com, 8 June 2011

France: only 22 % in favor of new reactors. France is the world's most nuclear-dependent country, producing 80 percent of its power from 58 reactors, but public opposition is growing. An opinion poll published June 4, found just over three-quarters of those surveyed back a gradual withdrawal over the next 25 to 30 years from nuclear technology.
The Ifop survey found only 22 percent of respondents supported building new nuclear
power stations, 15 percent backed a swift decommissioning and 62 percent a gradual one.
Reuters, 7 June 2011

WISE/NIRS NUCLEAR MONITOR

The Nuclear Information & Resource Service was founded in 1978 and is based in Washington, US. The World Information Service on Energy was set up in the same year and houses in Amsterdam, Netherlands. NIRS and WISE Amsterdam joined forces in 2000, creating a worldwide network of information and resource centers for citizens and environmental organizations concerned about nuclear power, radioactive waste, radiation, and sustainable energy issues.

The WISE/NIRS Nuclear Monitor publishes international information in English 20 times a year. A Spanish translation of this newsletter is available on the WISE Amsterdam website (www.antenna.nl/wise/esp). A Russian version is published by WISE Russia and a Ukrainian version is published by WISE Ukraine. The WISE/NIRS Nuclear Monitor can be obtained both on paper and in an email version (pdf format). Old issues are (after two months) available through the WISE Amsterdam homepage: www.antenna.nl/wise.

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