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INDIA: LOWER OUTPUT DUE TO URANIUM SHORTAGE; DECISION ON INDO-US DEAL SOON

India's nuclear power output dropped last fiscal year, mainly because the country didn't have enough uranium to operate all of its 15 PHWRs at full capacity, Indian officials said. The uranium shortage is so severe that commissioning of two more 220-MW PHWRs, Rajasthan-5 and -6, has been delayed. The two new reactors were expected to begin operating in August 2007 and February 2008, respectively.

(674.5876) WISE Amsterdam - In fiscal year 2008 (from April 1, 2007 to March 31, 2008), India's 17 power reactors generated just over 17 billion kWh, down about 10% from the previous fiscal year, according to data from Nuclear Power Corp of India Ltd. (NPCIL), which operates all of India's nuclear power plants. The FY-08 figure was about 25% less than NPCIL hoped to generate during the year.

Due to an embargo against India applied by the members of the Nuclear Suppliers Group, NSG, no major global uranium producer may export uranium to India. India relies on domestic sources for natural uranium to fuel its Pressurized Heavy Water Reactors (PHWR). The Tarapur-1 and -2 BWRs (both 160MW), are fueled by an inventory of imported low-enriched uranium under an exceptional agreement with NSG members. Russia has been providing LEU for the two BWRs, on grounds that the export qualifies as an exception permitted for nuclear safety reasons. That justification has drawn objections from the US and other members of the NSG.

Anil Kakodkar, chairman of India's Atomic Energy Commission, said early June that the country is facing a shortage because it has been slow in opening up new mines. Public resistance is likely to hobble India's efforts to boost domestic production of uranium, even as half the installed capacity at nuclear plants lies unutilized due to a fuel shortage. Meanwhile, Australia will not lift the ban on uranium exports to India, unless the country signs the Non proliferation Treaty. But on June 23, Stephen Smith, Australia's Foreign Minister said after meeting Indian counterpart Pranab Mukherjee, Australia would consider export uranium to India if New Delhi was able to sign the 123-agreement with the USA.

The deal still needs clearances from the International Atomic Energy Agency (IAEA) board of governors and the 45-nation Nuclear Suppliers Group. Then the deal would have to go to the U.S. Congress for final approval. As uncertainty continues over the Indo-US nuclear deal in view of the political crisis in India over the agreement, the US again said, every passing day was making it harder to get it through. 'The reality, of course, is that every day that goes by is one less day on the legislative calendar for us to be able to have congressional action take place. So it certainly gets harder every day that this is delayed,'' State Department's Deputy Spokesman Tom Casey said on June 24..

At the same time, the Communist Party of India accused the government of "highlighting a temporary shortage of uranium fuel and painting it as a permanent one.(…) It appears that the specter of uranium shortage has been created only to push a deal that is not in

MONITORED THIS ISSUE:

India's national interest.". However, although the CP opposed the Indo-US agreement, it points out, nuclear energy had an important place in India's energy option and this route must be kept open for the future. But "mythical energy claims are being made in order to promote a bad nuclear deal. Energy is just a cover. The real intent is India-US strategic ties."

Some analysts say the communists could allow the government to negotiate an India-specific safeguards agreement with the IAEA, and not let the deal go any further. That would buy the government time and avoid early elections but leave the deal in limbo.

A more substantial and balanced position comes from the Indian Coalition for Nuclear Disarmament and Peace (CNDP) - a national coalition of organizations and individuals for nuclear disarmament.

As a decision on the agreement is expected soon the coalition again notes with great concern the Indian Prime Minister's obstinate insistence on going ahead with clinching of the India-specific agreement with the IAEA. This will be a vital intermediate step towards operationalizing the Indo-US nuclear deal in the teeth of strong opposition within India. The Prime Minister wants to go ahead, trampling upon democratic norms and values, regardless of all rational considerations, let alone ethical ones.

The CNDP reiterates its consistent and firm opposition to the deal on the following grounds as pointed out repeatedly in the past.

* The deal severely undermines the prospects of global nuclear disarmament by (selectively and arbitrarily) "legitimizing" India's nuclear status and, in the process, the possession of nuclear weapons by the existing nuclear weapon states - both "recognized" and "unrecognized" - and also the aspirations of other actual and potential aspirants. The deal will promote the cause of nuclear militarism and nuclear-weapon build-up in India against the interests of peace and the people in the region. It will further intensify the arms race between India and Pakistan - both nuclear and conventional. Pakistan, in fact, made a strong plea for a similar deal. And the brusque refusal by the US, instead of dissuading it, would only further inflame its passions and thereby turn the nuclear mess in South Asia all the more dangerous.
* This deal is also an utterly reprehensible move to bring India closer to the US orbit as a regional ally to facilitate the execution of its global imperial ambitions.
* Furthermore, the consequent shift in focus in favor of highly expensive nuclear power, if the deal comes into operation, will significantly distort India's energy options at the cost of efforts to develop environmentally benign and renewable sources of energy.

The CNDP, on this occasion, calls upon the Indian people to rise in protest against the intransigence of the Prime Minister and voice their strongest opposition to the undemocratic move to impose the deplorable deal on the country.

For more on the political ins & outs and reasons to oppose the deal, see *Nuclear Monitor* 672, May 15 2008

Sources: Nuclear Fuel, 2 June / Livemint.com, 20 June / The Hindu, 22 June / RIA Novosti, 23 June / CNDP, 23 June / Press Trust of India, 24 June (all 2008)

THE ANGARSK IUEC PR-CAMPAIGN

Russian environmental groups had their first tour at the site of the future International Uranium Enrichment Center, slated for construction in the remote Siberian city of Angarsk. Afterwards they declared that the policy of apparent openness on the project by Rosatom, the Russian state owned nuclear corporation, is nothing but a sham.

(674.5877) Bellona - The Russian nuclear industry, as represented by Rosatom, has widely promulgated its willingness to run the international center, which will serve as a world uranium bank, producing uranium for countries that can't or don't want (or are not allowed) to enrich their own uranium and sell to a tightly monitored client list to avoid proliferation risks like Iran. The center has already received the warm endorsement of the United States Congress and the powerful Washington-based NGO, the Nuclear Threat Initiative (NTI), which have jointly donated US$100 million toward the project. The IAEA is on board as well. (more on 'Monopolizing the fuel cycle', *Nuclear Monitor* 653, 19 March 2007)

The building of the center received another boost with the signing in May of a civilian nuclear pact between the United States and Russia, paving the way for technological exchanges, the import of US-controlled spent nuclear fuel and co-operation on the International Uranium Enrichment Center. The pact must pass the approval of the Russian Duma and clear skeptical hurdles in US Congress.

But few of the powerbrokers involved in the pact, and more specifically the uranium enrichment center at Angarsk, have addressed the environmental threats inherent of the uranium enrichment process itself, which threatens the population of Irkutsk and the precious natural resource of Lake Baikal, the world's deepest lake.

Smoke and mirrors

At a press conference on June 17, after visiting the Angarsk Electro Chemical Combine (AEKhK in its Russian abbreviation), Bellona and the powerful Baikal Environmental Wave announced that the public was being duped. "Rosatom portrays openness in the framework of its PR campaign on the creation of the International Uranium Enrichment Center, however there is, in fact, no openness at all," Rashid Alimov of Bellona told the conference.

A day later, Bellona environmentalists, who had been invited by AEKhK were

denied a requests to take radiation readings and were not provided with the information they had requested, regarding the handling of depleted uranium - also known as uranium tails - in the form of hexafluoride, the plant receives as a consequence of contracts with two European consortium: Urenco and Areva. Specifically, Bellona had asked information about the costs of storing and converting uranium tails, how this was financed, as well about the costs and characteristics of an experimental installation at the AEKhK called Kedr, which according to Rosatom plans, will begin converting depleted uranium hexafluoride into a less dangerous form.

No Geiger counters

The environmentalists brought both domestic and foreign produced Geiger counters with them that were confiscated when they arrived at the AEKhK. "It was with precisely these instruments that I measured radiation on the surface of the containers of uranium waste during their transit from Europe through St. Petersburg," said Alimov. "If the AEKhK is afraid of independent monitoring of radiation levels, one can assume they have something to hide."

Andrei Ponomarnko, Bellona, who traveled with the group, said the environmentalists demanded that a staff radiation-monitor measured radiation in areas that were of interest to them, but were told that all staff radiation monitors were busy. Apparently, Rosatom is not prepared for a dialog - they invited us to simply take us on the tourist route." Alexander Terentin, the AEKhK information officer, said the "radiation safety is 99 percent" and that the environmentalists where "not members of group 'A'" meaning they were apparently forbidden from taking radiation measurements.

Uranium tail containers off limits

The Angarsk facility took depleted uranium hexafluoride imported from abroad until 2002. Rosatom advisor Igor Konyshev asked Bellona to the Angarsk facility as it is the only one of the four facilities accepting radioactive waste from abroad that does not have a military component. Yet the environmentalists were still not allowed to inspect the depleted uranium hexafluoride containers, and facility guides only showed the storage unit to them from afar. "It is important that we inspect the containers of depleted uranium hexafluoride, evaluated their exteriors and levels of corrosion. After all, they have been stored in the open air for decades," said Ponomareko.

Bellona is against the ongoing imports of uranium from Europe - particularly Germany and France. According to them, the import of uranium tails through the port of St. Petersburg constitutes an import of pure nuclear waste: only a small fraction of useable uranium can be extracted from the uranium tails. The uranium is then sent back to the west while the remaining secondary waste - more than 90 percent of the uranium tails - remains in Russia forever. (more on this: *Nuclear Monitor* 661, 'Urenco's rush to dump uranium waste in Russia' 11 October 2007,

"Rosatom head (Sergei) Kiriyenko promised that by the end of 2007, Rosatom would provide the public with its plans for the expansion of the Angarsk Electro-Chemical Combine and that open hearings would be organized", said Baikal Environmental Wave's Rikhanova. "However, the International Uranium Enrichment Center has already been established, and still no information about Rosatom's plans and its consequences have been provided to Irkutsk and Baikal area residents."

Baikal Environmental Wave, in conjunction with the Baikal Movement, recently sent 20,000 signatures from a petition of Irkutsk and Angarsk residents to the Russian government against the construction of the International Uranium Enrichment Center. "We know from accounts by Rostekhnazor (the Russian Federal Service for Ecological, Technical and Nuclear Oversight) that containers of uranium tails stored in the open air at Angarsk and other facilities do not meet contemporary safety requirements," said Alimov.

The environmentalists showed a recently obtained document signed by Russia's scandal-tarred former Minister of Atomic Energy, Yevgeny Adamov. The document - order No. 4 from January 1, 2001 - spelled out that one of the Ministry's main directives was 'working out (…) issues of the possibility of returning to customers" the secondary waste associated with re-enriching uranium tails.

However, Rosatom's current policy for dealing with uranium tails does not take this document into account: the waste will not be returned to European customers. Although international principles dictate the return of radioactive waste to the countries of its origin, those countries simply state that it's not waste. The expansion of the Angarsk Combine as the site for the International Uranium Enrichment Center will lead to more and more stored uranium waste.

Angarsk inspection 'a day at the beach'

Despite the fact that Rosatom is allowing press tours of the Angarsk facility, they add nothing to increasing transparency. The program for visitors includes an entire day of tourism, including swimming trips to Lake Baikal, the local museum of the December Revolutionaries - but no discussion of nuclear issues.

According to the environmentalists, Rosatom is not willing to have a serious conversation with ecological organizations. The other three uranium tail storage-facilities near Tomsk, Yekatarinaburg and Krasnoyarsk, are even more shrouded in secrecy, and it is also unclear under which conditions the (foreign) uranium is stored on those locations.

Source: Bellona, 20 June 2008. *Rashid Alimov and Charles Digges (edited by WISE Amsterdam)*
Contact: WISE Russia

APPLICATION FOR YUCCA MOUNTAIN: ACTIVISTS REAFFIRM COLLABORATION

On June 3, the US Department Of Energy sent an application to the US Nuclear Regulatory Commission (NRC) for a license to build the nuclear waste repository at Yucca Mountain, Nevada. Since the application coincided with the *Nuclear Monitor* deadline the application was only mentioned in the last *Nuclear Monitor* very briefly. Below is a larger article analyzing the application. Meanwhile, the National Activist Summit on Nuclear Waste convened in South Carolina to engage with US radioactive waste policy issues.

(674.5878) NIRS - The US Department of Energy (DOE) on June 3, 2008 sent an application of more than 8,000 pages to the US Nuclear Regulatory Commission (NRC) for a license to build a nuclear waste repository at Yucca Mountain, on traditional Western Shoshone lands in Nevada. Included are over 3 million supporting documents. Up to now the substantial activity at the Nevada site has been "exploratory" and many design features required for repository operation have not been built. The current projected total cost for the project is US$58 billion, however in the June 3 press conference announcing the submission of the license application, DOE Secretary Bodman allowed that the newly updated "life cycle cost" for the repository would be in the range of US$70 - 80 billion.

The real bottom-line is this: as soon as 2010 US nuclear power reactor operators will have generated a pile of irradiated fuel rods sufficient to completely fill Yucca's legislatively mandated limit of 63,000 metric tons of civilian waste (7,000 metric tons is reserved for fuel rods and other wastes from the US military complex). Yucca, if it ever opens, is full before a single new reactor generates a single additional fuel rod. The DOE's new, still fantasy-based projection for repository opening is 2020, which assumes Congress gives every penny DOE requests in the interim.

Nonetheless, Secretary Bodman in announcing the license application placed enormous emphasis on Yucca in relation to the "need" to expand nuclear energy in the United States. In his view nuclear is "critical to environmental health, energy security and national security…" Bodman also tied the expansion of nuclear power to the Climate Crisis, "…if we address greenhouse gases - then nuclear has to expand - we need "emission-free" baseload energy for the US - for the expansion of nuclear power to occur - we must have Yucca repository."

The repetition of the false assertion that nuclear energy could be a solution to the climate crisis, the assertion that nuclear is emissions-free are troubling indicators that propaganda is still driving nuclear waste policy in the US.

Yucca remains an unacceptable site for the storage or burial of irradiated fuel and other high-level wastes. The site is geologically active with both earthquake faults running through the site, relatively recent volcanic activity resulting in the fracture of the soft tuff (compressed ash) that forms the low-lying ridge called a "mountain." In 1998, 220 NGOs led by Nuclear Information and Resource Service (NIRS) and Public Citizen petitioned then-Secretary of Energy Bill Richardson to disqualify the site because it could not meet the groundwater travel-time standard -- one of the most fundamental "guidelines" established by the scientific community to define a "suitable" site for the burial of this most deadly of wastes. The issue of how long it takes for water to travel in and through the site and out to the accessible environment is fundamental. This parameter has not changed at Yucca-there is incontrovertible evidence that water has traveled into the proposed repository zone in less than 50 years - and so would almost certainly travel out of the zone in less than the prescribed 1000 years. The only change at Yucca has been the relaxation of the standards.

Also on June 3, the State of Nevada and the Nevada congressional delegation sent a message to the NRC: do not let the political pressure of an industry seeking expansion override the NRC's legislatively mandated role to protect public health and safety of all Americans - including those living in Nevada. Nevada urges that NRC to reject application and not "docket" it since it is incomplete, pointing out the design for is only about 35% complete, and there is also no final design for the centerpiece of the current disposal concept: the waste container. Called a TAD (transportation-aging-disposal), DOE just announced contracts with Areva and NAC for this work in late May. Further, titanium drip shields that will supposedly provide protection for the metal TADs in the warm, moist, corrosive interior of Yucca, are deferred for 300 years - installing then may not be feasible given the high radiation and heat of a loaded repository. Nevada points out that the filing of a license application is premature since the Yucca radiation standard - to be set by the Environmental Protection Agency (EPA) has not been finalized. It is not possible for NRC to assess the application without having the stick it is to use to measure success or failure. The State of Nevada is intervening in the licensing process and has already identified hundreds of points for "contentions."

More news came as the Secretary asserted that DOE will start shipping waste to the Yucca site "as soon as we have a construction authorization" - which could be within 3 years. This establishes that an NRC Yucca license will trigger the largest nuclear fuel shipping campaign in the world to date, and also the intention to store irradiate fuel on the surface of the Yucca site. The Nevada congressional delegation letter hit this concept hard by including an excerpt from Holtec International, one of the companies that had been bidding on the TAD container contract. Holtec withdrew from the bidding process calling it "mission impossible"

due to the potential for a 3-g earthquake at the site which could "bounce and roll" the TAD containers sitting on the surface of the site. Nevada quotes Holtec: "A computer simulation of a freestanding HI-STORM 170 {TAD design} under a 3g earthquake…will convince the reader of this publication that pigs will fly before the cask will stay put!"[1]

Bodman was asked by a reporter at the June 3 press roll-out of the Yucca application whether DOE is pursuing any other storage options in other locations. Bodman responded that "DOE would be very happy to work with Congress" on any other options. So "Mobile Chernobyl" - the shipment of waste -- could be triggered even before the NRC acts.

Antinuclear summit

Four days before the DOE action, another significant event, the National Activist Summit on Nuclear Waste convened in South Carolina to engage with US radioactive waste policy issues. The event was held May 30-June 1 at the University of South Carolina, Columbia at the "Green Quad" - heated and cooled by one of the larger arrays of solar-thermal vacuum tubes in North America. The summit was called by Nuclear Information and Resource Service (NIRS) in conjunction with a diverse core group of grassroots activist organizations from across the US. The more than 70 participants represented grassroots and national organizations in 22 states and the District of Columbia. The Summit was called because of the complexity of the current nuclear waste situation in the US, the drive to revive nuclear power, and the vast potential for industry and federal agencies to attempt to "play" one local community against another. There has been a strong grassroots community in the United States working together for decades to stop the production of more nuclear waste -- it was time to reaffirm those relationships. The Summit resulted in a unified plan for collaborative work. For more information contact the author.

The Waste Summit was held in South Carolina largely due to the reversal of US policy on reprocessing of irradiated nuclear fuel and the likelihood that the DOE's Savannah River Site would play prominently in any US implementation of reprocessing, or as it is now called "recycling." South Carolina (SC) offers the infrastructure needed including proximity to ports necessary for the Global Nuclear Energy Partnership (GNEP) dimension of the plan. SC and Augusta (Georgia) also offer business communities that are enthusiastic supporters of all federally funded nuclear activities. The Summit affirmed that activists from across the US would stand in solidarity with South Carolinians to oppose this insane reversal of one of the small scraps of sanity in Cold War US nuclear policy. Activists in South Carolina disparage their state as the plutonium plantation -- all the more reason people from all quarters must get involved. Transportation of the waste to a recycling center, a storage site, or to Yucca remains the impact to the greatest number of people. The Summit affirmed opposition to the Global Nuclear Energy Partnership as well, calling the plan to ship US nuclear fuel out and irradiated fuel from all over the world in to the US, "Global Mobile Chernobyl."

The industry's Nuclear Energy Institute affirmed the multi-dimensional nature of the US nuclear waste program in its June 3 press release on the Yucca license application: "This integrated strategy also should include interim storage of used fuel until reprocessing of used fuel or permanent disposal is available, although even with advanced reprocessing technologies being developed, there still will be some quantity of final waste products that will require long-term geologic disposal."

The primary platform offered by Summit participants is the Community Principles for the Safeguarding of Irradiated Fuel stored at reactor sites. The Summit also affirmed intervention and other forms of opposition to new reactors.[2] Indeed, an issue raised by the Blue Ridge Environmental Defense League (BREDL), a leader in the opposition to new reactor licensing in the Southeast, is riveted upon the fact that Yucca Mountain will not hold any of the new reactor waste. In its petition to intervene against licensing of a new Dominion reactor unit in Virginia, BREDL states: (Dominion's application) "…does not contain any discussion of the environmental implications of the lack of options for permanent disposal of the irradiated fuel to be generated by North Anna site. Therefore, it is fatally deficient. *State of Minnesota v. NRC*, 602 F.2d at 416-17."[3]

The confidence of the NRC in permanent disposal - or the lack thereof - may be the reason that it is welcoming the DOE application with open arms - complete or not; EPA standard still missing. In order to license a new nuclear power plant, the NRC must demonstrate its own confidence in permanent disposal of the waste that would be generated…but the agency is planning its own new rulemaking on this subject, suggesting that it is far from confident about the matter today. It is up to the groups who convened at the Summit, and those in industry, the academy and government, who still care about credibility to ensure that this rolling disaster in US waste policy stops here.

Sources:

[1] Full text of the Nevada congressional delegation letter is posted at: http://reid.senate.gov/newsroom/pr_06-05-08_Delegation-Letter.cfm

[2] Principles for Safeguarding Nuclear Waste at Reactors, posted at: http://www.citizen.org/cmep/energy_enviro_nuclear/nuclear_power_plants/nukewaste/articles.cfm?ID=15694

[3] Petition for Intervention and Request for Hearing, Blue Ridge Environmental Defense League, May 9, 2008, page 21 http://www.bredl.org/pdf2/080509NorthAnna_COL_petition_FINAL.pdf

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U.S. CLIMATE CHANGE BILL PASSED INTO OBLIVION

The symbolism was overwhelming: on the afternoon of Wednesday, June 4, 2008, the Republican leadership of the United States Senate demanded that the Lieberman/Warner climate change bill be read in its entirety. It was a legal, though little-used, procedural maneuver and was designed to prevent debate on the single most important issue facing the Senate and the entire world.

(674.5879) NIRS - As the Senate clerks began reading the complicated (some would argue convoluted as well) 491-page bill, a process that ultimately took 10 hours, storm clouds could be seen on the horizon of the very hot and sunny Washington afternoon. The clerks kept reading as the clouds rolled in, darker and darker. By 3:30 pm, the entire region was in eerie midnight black and the heavens opened up with torrents of water.

Within 15 minutes, two tornadoes had been reported in the Washington area. The storm continued as the clerks read on, oblivious to the power outages, internet outages, and even phone outages that crippled much of the region (NIRS' internet connection was lost for two full days). As the reading ended, the storm finally passed. Five funnel clouds had been reported-this in a region where 40 years ago a tornado was perhaps a once-in-a-decade phenomenon.

By the morning of Friday, June 6, the climate bill had passed too-passed into oblivion as Majority Leader Harry Reid pulled the bill from the Senate floor following a failed vote to end "debate" on the bill and proceed to voting on amendments. The motion needed 60 votes, it attained only 48. 36 Senators, mostly Republicans, voted against the motion.

Neither presidential candidate was at the Senate. Both sent notes saying they would have voted to proceed: Obama's note added that the bill was not strong enough to effectively address the climate crisis, McCain's note said he opposed the actual bill because it did not contain enough subsidies for nuclear power.

An aide to co-sponsor Joseph Lieberman (I-CT) had said earlier in the year that the bill "would be the most historic incentive for nuclear in the history of the United States," and as originally written the nuclear industry could have received US$500+ billion (320 billion euro) between now and 2050-even though the word "nuclear" never appeared in the bill. A substitute bill written by Senate Environment Committee Chair Barbara Boxer (D-CA) re-allocated a large portion of that money, however.

So two amendments intended to placate McCain (both Lieberman and Warner are McCain supporters) and the nuclear industry were widely anticipated. One, expected from Lieberman, would have given an unspecified chunk of money to the nuclear industry for worker training and education and expressed the "sense of the Senate" that the federal government should invest in new facilities to manufacture nuclear components-such as reactor pressure vessels-to make up for the reality that worldwide only Japan Steel Works can produce such components right now. The amendment was designed to address one of the industry's most pressing issues: the fact that the U.S. nuclear power industry simply does not have the infrastructure to embark on any type of meaningful reactor construction program.

The second amendment was expected to be introduced by Sen. Johnny Isakson (R-GA) and while the final text was never released, it was expected to go further and also address the industry's other main problem: money. The US$18.5 billion (12 bn euro) in taxpayer loan guarantees passed by Congress last December (see Nuclear Monitor 665, 17 January 2008) doesn't look like much to the nuclear industry anymore, given new construction cost estimates for reactors are ranging from about US$8 billion to US$12 billion each. Indeed, during the same week, Moody's Investor Service released its latest cost projections for new reactors, confirming estimates in that range. Moody's now projects US$7,000+/kw-more than 450% higher than nuclear industry estimates in early 2006.

So Isakson was expected to dramatically increase loan guarantees and perhaps offer other financial support to the nuclear industry.

Phone calls from activists across the country flooded the Congress against the two amendments. Many people reported that some Senate offices simply stopped answering their phones, and turned on answering machines. Ten major Washington DC environmental organizations released a statement opposing the likely amendments. In the end, neither amendment even made it to the floor for a vote.

And, in the end, the Senate failed to engage in any kind of substantive debate on how to address the climate crisis. "The Ostrich Society," composed of most Republicans and a few Democrats supportive of the fossil fuel industry, prevailed with their head-in-the-sand approach to climate: if we pretend climate change isn't a problem, we can continue to pollute however much we want.

Still, it may have been the best possible outcome for the environmental movement, and ultimately to effectively addressing the climate crisis. The Lieberman-Warner bill was complex and unwieldy. Its goals were overly modest-a 60% reduction in carbon emissions by 2050; virtually no near-term reductions; and even the coal industry would have made money under the bill.

Next year could be very different. A new Congress will be sworn in without some of the nuclear industry's most vociferous supporters of the past two decades, most notably Sens. Pete Domenici (R-NM) and Larry Craig (R-ID). And the new President almost certainly will make climate a priority, even though the two candidates have vastly different ways of addressing the issue. For a brief comparison of the candidates'

positions on climate and energy, go to: http://www.grist.org/candidate_chart_08.html. Hopes for a much better bill actually passing Congress and being signed by the President (Bush had promised to veto even the weak Lieberman/Warner legislation) are very high.

Source and contact:
NIRS, Washington

DON'T NUKE THE CLIMATE - NEW NEED FOR ACTION

The global community, convening in Bonn (Germany) at the United Nation's Framework Convention on Climate Change (UNFCCC), the 170-nation climate conference, has again been trying to reach consensus on the way forward to a post-Kyoto agreement, which has to be agreed on in Copenhagen December 2009.

(674.5880) WISE-Amsterdam - The new agreement, which should be in place before 'Kyoto' ends (2012) is set to be decided upon in Copenhagen (Denmark) at the end of 2009. In between (at the end of 2008) there will be a large meeting in Poznan (Poland) to discuss which low-carbon technologies should get financial and political support in a new agreement. In the current Kyoto-agreement it is said that any technology looking for support should be sustainable. By switching the wording and terms to 'climate-friendly' or 'low-carbon' nuclear is making its way back in.

And of course, we see the same movements and attempts from the nuclear lobby as we saw in the years before 2000, when the Kyoto-agreement was decided upon, then excluding nuclear as a solution for climate change and excluding it for getting a rubber-stamp of approval and financial support via the so-called flexible mechanisms. One of these, the Clean Development Mechanism (CDM) is a trade system for credits for avoiding emissions. It has, according to UN figures, so far helped cut 152 million tonnes of CO2 from entering the atmosphere.

The nuclear lobby is back, stronger than ten years ago and eager to get what they were denied earlier (as they feel it). "Nuclear power may qualify as a clean-energy source and earn air-pollution credits under a UN-programme to slow global warming. Nuclear power could be added to a list of approved technologies. Nuclear power has to be considered" Yvo de Boer, the Dutch chairman of the UNFCC said in Bonn.

Although other issues get far more attention there were a few NGO's in Bonn countering the nuke speak. Women in Europe for a Common Future (WECF) together with Greenpeace, WISE, International Forum on Globalisation and Ecodefense (WISE Russia) organised workshops, lobby activities and reached out to the media with a clear message: *"don't nuke the climate'*.

Bonn parties exhibited medieval thinking by not refuting the absurd proposition of a "nuclear renaissance" coming out of Copenhagen. Ignoring years of NGO testimony in opposition and numerous well-documented reports as to the failed promise of nuclear power being "inherently safe" and "too cheap to meter," the proposition to "include nuclear activities" in the Clean Development Mechanism, sadly, remains in the text that is leaving Bonn en route to Poznan and further on to Copenhagen, supported by countries as Canada and Japan. Key in the further negotiations will be the position of the European Union who played an important role in keeping nukes out of the Kyoto-agreement. It is yet to be seen whether this position will be taken again in the run-up towards Copenhagen.

It is now up to the environmental NGO-community to increase the campaigning efforts to block further support for the nuclear relapse.

Sources: Website Energy Saving Trust; http://www.energysavingtrust.org.uk (last visited 17 June 2008) / Website UNFCCC. www.unfccc.org (last visited 24 June 2008) / WECF email, 13 June 2008 / Ecodefense email, 13 June 2008

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IN BRIEF

Finland: emission trading rights. The Finnish newspaper Helsingin Sanomat reports that nuclear power companies in Finland are enjoying massive subsidies from emissions trading rights. It reports that companies producing electricity with coal and other emission-causing fuels pass on the value of emission rights to their electricity prices, even though they receive the bulk of the rights free of charge. The paper calculates that of the 28 euro per tonne value of emissions rights, 22 euros are passed on to the price of each megawatt of electricity. Also, power utilities that do not cause emissions follow the same pricing practices. According to Helsingin Sanomat, Finland's four nuclear power units bring owners an extra 500 million euros annually from non-existent emissions.

This is one reason, it writes, that investors both in Finland and abroad have been keen on constructing nuclear power plants here. In total, emission rights charges bring the Finnish electric power industry close to an extra two billion euros a year.
www.Yle.fi, 23 June 2008

Belgium: Coalition demands recuperation of nuclear windfall profits. "Stop giving priority to the needs of one French company over what's good for the public." This is the message a coalition of eight trade unions, consumer's organisations and environmental NGO's, gave to the Belgian government on 4 June 2008. The coalition staged a demonstration next to the seat of energy company Electrabel-Suez.

Every year Electrabel-Suez gains more than 1 billion euros, due to the accelerated amortization of the nuclear and coal fired power plants between 1971 and 2003. This caused the electricity prices for Belgian consumers to be the highest of Europe.

The coalition demands a transparent regulation to recover the windfall profits. The time of backroom deals should be over. The recovered budget should be prioritised for investments in renewable energy, efficiency and demand side management. The emphasis should be placed on low income households, because they are hit hardest by the rising energy prices. The Belgian government seems to be willing to use the windfall profits as a bargaining chip to alter the nuclear phase-out. The coalition says clearly that there can be no link between the recovery of the windfall profits and the nuclear phase-out law.
www.bblv.be

UAE calling for bids. The United Arab Emirates is calling for bids to construct a nuclear power plant in the Middle Eastern state, Agence France-Presse reported on June 23. Nine firms are bidding to build the plant, which would become the first nuclear power station in an Arab country, Emirates Business quoted sources as saying.
In an April report on its plans for civilian nuclear energy development, the United Arab Emirates emphasized that it would purchase nuclear fuel for the plant from abroad and not produce it indigenously. France signed a civilian nuclear cooperation deal with the United Arab Emirates in January, and the United States concluded a similar agreement in April
NTI, Global Security Newswire, 23 June 2008

France, Algeria Sign Civilian Nuclear Deal. On June 21, France and former colony Algeria signed defence and civil nuclear power accords. An accord on the peaceful use of nuclear energy provides for cooperation in research, training, technology transfer and the exploration and production of uranium, sectors of interest to French nuclear plant builder Areva. The signing took place during a trip to Algiers by French Prime Minister Francois Fillon, who called the deal a sign of "transformation" in the relationship between the nations.
BBC and Reuters, 21 June 2008

Brown; the new hope for the nuclear industry… British Prime Minister Gordon Brown will talk to his Japanese counterpart, Yasuo Fukuda, at the G8 meeting in Hokkaido (July) about a potential BP1 billion (US$1.96 bn or 1.26 bn euro) a year contract to reprocess fuel at Sellafield in Cumbria to be used in Japan's nuclear reactors, industry sources said. Since 1999, when it was disclosed that BNFL had falsified quality control documents related to a delivery to Japan, Japan has had a contract with France's Areva for reprocessing.

Brown also said Saudi Arabia and other oil producers should invest some of an estimated 3 trillion dollars they have earned out of the recent oil price surge into new nuclear technology. Earlier, on June 12, Brown signalled he wants Britain to play a major role in the race to build an extra 1,000 nuclear power plants globally as part of his vision for ending the global "addiction to oil".
Daily Telegraph, 23 June / EarthTimes.org 22 June / Independent, 13 June 2008

Switzerland: application for new reactor. Swiss energy company Atel has submitted an application for framework approval of a new nuclear power reactor (Niederamt, alongside but independent from the Gösgen plant) to Switzerland's Federal Office of Energy. No reactor design is specified in the application, other than a "third generation light water reactor" that would use a virtually vapour-free "hybrid" cooling tower, in which the heated cooling water is recooled through heat dissipation to the atmosphere. The application is based on both 1100 MWe and 1600 MWe capacities. According to Herbert Niklaus, Atel's head of energy for Switzerland, the project will cost SFR6-7 billion (US$6-7 billion).

Kernkraftwerk Niederamt AG (KKN), a 100% Atel-owned subsidiary, has been set up with responsibility for planning, building and operating the new and for obtaining the necessary approvals. Atel says it is looking for partners in the project and is currently talking to "various interested parties," including the operators of Switzerland's nuclear power plants.
No new nuclear plant can be built without the approval of the Swiss people, and Atel's application may be subject to an optional referendum. The timetable envisaged by KKN would suggest 2012 as a likely referendum date. KKN envisages that the new plant could start up in 2021-2023 (if all goes according to plan).

The country's oldest unit, Beznau 1, is scheduled to close in 2019, with other plants following on. Mühleberg is currently licensed to 2012, and is unique amongst Swiss plants in having a statutory operating limit imposed on its licence. According to the Swiss Federal Office of Energy, a decision on an application to waive the 2012 limit is likely in the first quarter of 2009. The closure date for Mühleberg would then likely be put back to 2022.
World Nuclear News, 10 June 2008

800 MW coal power plant planned to supply Namibian uranium mines. Namibia's national power utility is planning an 800 MW coal-fired power plant to supply a growing demand for electricity from uranium mines, reports said on June 18, 2008. A report from a consultant Ninham Shand Consulting Services, hired by the power utility to carry out a feasibility study for the envisaged power plant, said the coal-fired 800 MW plant would supply power to the booming uranium sector. The plant will have a coal stock yard, ash-disposal facility and transport system, to deliver coal and potentially seawater to and from the plant. An 800 megawatt facility would consume as much as 2.4 million metric tons of coal annually, the report said. Namibia is Africa's top uranium producer, followed by Niger and South Africa in third place. A biting power shortage has, however, raised fears that some mining projects could be put on hold.
www.wise-uranium.org, 19 June 2008

UK- A bribe or an incentive? The U.K. Government has published a White Paper, Managing Radioactive Waste Safely - A Framework for Implementing Geological Disposal, which details the next stage in site selection for a deep underground waste repository and how the policy of 'voluntarism' by communities will be applied. Local communities are asked to consult widely and begin discussions with the Government. Environment minister Hilary Benn said: "The Government, along with the Nuclear Decommissioning Authority, will be looking to sit down and discuss, with any community that feels it has an interest, both the technical aspects...and the wider social, economic and environmental issues involved". The White Paper was greeted largely by newspaper headlines referring to 'bribes', referring to the multi-billion incentives likely to be offered to the community eventually chosen to host a repository.

Greenpeace commented that there was no guarantee that a willing community will come forward and volunteer to host the repository - or that their site will be geologically suitable.

The Scottish Government has rejected deep disposal as an option for dealing with waste while the Welsh Assembly has "reserved its position" on the issue. The local government Nuclear Legacy Advisory Forum (NuLeAF) has published a special section of its website dedicated to providing information about the siting process. Full details at www.nuleaf.org.uk
N-base 574, 18 June 2008

EdF allowed to continue concreting. Concreting work is to recommence at the Flamanville 3 nuclear power site, after safety authorities accepted Electricité de France's (EdF's) plans to improve quality control. Work was suspended from 26 May after non-compliances were found in steelworks laid part of plant building foundations. Inspectors from France's Nuclear Safety Authority (ASN) had already discovered similar non-compliances during an inspection in March and had been aware of other "anomalies" since the start of 2008. (see Nuclear Monitor 673, 5 June 2008)

ASN wrote in letters to EdF managers that the second occurrence of the problem showed there were "major shortcomings" in quality control and the persistent non-compliance highlighted a "lack of rigour" from the company and as well as a "lack of discipline" in controlling its subcontractors. EdF were told to suspend concreting work at the site and prepare a corrective action plan. ASN said on 19 June that it had accepted the EdF's plan, which focused on improving "the rigour of technical checks by subcontractors and site supervision." EdF said they would bring in an external technical body to oversee the checks and would strengthen safety culture by training workers from all the companies involved.

EdF is required to give progress reports on their plan to ASN every month for the next six months, and ensure that all steelwork is checked by the external technical body during the period of training. At the end of the six months EdF is to give an assessment of the plan's efficacy. It has also been told to conduct a root-cause analysis of the issue.
World Nuclear news, 20 June 2008

Greenpeace airship bears witness to the failure of French nuclear projects. Greenpeace launched a special airship to draw attention to the dangerous failures of the French nuclear industry. The 44 meter long yellow and black airship with a large Nuclear Power, "Non Merci!" sign flew by Olkiluoto, Finland, where the first French European Pressurised Reactor (EPR) is under construction. Greenpeace is compiling evidence of the safety problems, technical complications, delays, massive cost overruns and failed promises of the EPR projects in Finland and France and will deliver them as warnings to other countries considering investing in EPRs.

"We are here to warn people that to invest in one of these unsafe reactors is to end up in an endless spiral of problems, costs and risks. With the EPR, nuclear industry is bluffing. In France construction has been halted for safety

reasons, in Finland they are years late and billions over budget," said Jan Beránek, nuclear energy campaigner for Greenpeace International.

On the same day, June 24, 20 Greenpeace activists have blocked the entrance of 3 different quarries in Montegourg, Lieusaint et Doville (Normandy, France), 3 sites which supply sand and gravel for the building of the EPR in Flamanville, in order to stop the reopening of the building site which was authorised on June 19, by the French Agency of Nuclear safety, despite the fact that none of the safety problems of the new reactor have been resolved. (see above)

The new EPR reactor design has been promoted as a flagship for the nuclear industry. President Sarkozy and the state owned companies Areva and EDF are now trying to sell French reactors to numerous countries including the United Kingdom, Canada, China, South Africa, Brazil, the United States or Turkey.

Press release Greenepeace, 24 June 2008

Philippines investigates opening Bataan. According to Energy Secretary Angelo Reyes the government of the Philippines is seriously studying the option of opening the mothballed Bataan Nuclear Power Plant. Reyes said that a team from the IAEA that inspected the power plant in Bataan months ago has reported that this could be rehabilitated in at least five years at a cost of US$800 million and he said it would take two years to undertake a feasibility study on the rehabilitation and another five years to rehabilitate the power plant.

The 630-megawatt plant built during under the Marcos regime was mothballed in 1987 during the Aquino administration over safety concerns. One year ago exactly, in June 2007, the government announced that Philippines finally had paid off the Bataan nuclear power plant almost 32 years after work began. Woirk began in 1976 and was completed in 1984 at a cost of US$3.2 billion

Philippine Daily Inquirer, 7 June 2008 / Manilla Standard Today, 14 June 2007

Uranium 2007: Resources, Production and Demand, also known as the Red Book, estimates the identified amount of conventional uranium resources which can be mined for less than USD 130/kg* to be about 5.5 million tonnes, up from the 4.7 million tonnes reported in 2005. Undiscovered resources, i.e. uranium deposits that can be expected to be found based on the geological characteristics of already discovered resources, have also risen to 10.5 million tonnes. This is an increase of 0.5 million tonnes compared to the previous edition of the report. The increases are due to both new discoveries and re-evaluations of known resources, encouraged by higher prices. Based on the 2006 nuclear electricity generation rate and current technology, the identified resource base will remain sufficient for 100 years. However, total world uranium resources are dynamic and related to commodity prices. The uranium industry has reacted to recent increases in the price of uranium by launching major new investments in exploration, which can be expected to lead to further additions to the uranium resource base. Worldwide exploration expenditures in 2006 totalled over US$ 774 million, an increase of over 250% compared to 2004. Expenditures in 2007, for which data are not yet final, are expected to match those in 2006.

At the end of 2006, world uranium production (39 603 tonnes) provided about 60% of world reactor requirements (66 500 tonnes) for the 435 commercial nuclear reactors in operation. The gap between production and requirements was made up by secondary sources drawn from government and commercial inventories (such as the dismantling of over 12 000 nuclear warheads and the re-enrichment of uranium tails). Most secondary resources are now in decline (the contract for deliveries of HEU material from Russia to the U.S ends n 2013) and the gap will increasingly need to be closed by new production. Given the long lead time typically required to bring new resources into production, uranium supply shortfalls could develop if production facilities are not implemented in a timely manner.

Press release NEA/IAEA, 3 June 2008 / Euratom Supply Agency, Annual Report 2007

IEA: "construct 32 reactors each year". According to a report by the Paris-based International Energy Agency, the world needs to invest US$45 trillion in energy in coming decades, build some 1,400 nuclear power plants and vastly expand wind power in order to halve greenhouse gas emissions by 2050. Assuming an average 3.3 percent global economic growth over the 2010-2050 period, governments and the private sector would have to make additional investments of $45 trillion in energy, or 1.1 percent of the world's gross domestic product, the report said.

The study said that an average of 35 coal-powered plants and 20 gas-powered power plants would have to be fitted with carbon capture and storage equipment each year between 2010 and 2050. In addition, the world would have to construct 32 new nuclear power plants each year, and wind-power turbines would have to be increased by 17,000 units annually. Nations would have to achieve an eight-fold reduction in carbon intensity in the transport sector.

A U.N.-network of scientists concluded last year that emissions have to be cut by at least half by 2050 to avoid an increase in world temperatures of between 3.6 and 4.2 degrees above pre-18th century levels. Scientists say temperature increases beyond that could trigger devastating effects, such as widespread loss of species, famines and droughts, and swamping of heavily populated coastal areas by rising oceans.

AP, 6 June 2008

The NUCLEAR MONITOR

The Nuclear Information & Resource Service was founded in 1978 and is based in Takoma Park, Maryland. The World Information Service on Energy was set up the same year and is housed 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.

The 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, a Ukrainian version is published by WISE Ukraine (available at www.nirs.org). Back issues are available through the WISE Amsterdam homepage: www.antenna.nl/wise and at www.nirs.org.

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