

12. Nuclear Safety [43]

Commitment:

“As we approach the 25th anniversary of the Chernobyl accident in 2011, we will take the necessary steps to complete the final stages of the Chernobyl safety and stabilization projects, and we urge all entities to pursue the highest levels of nuclear safety, security and safeguards when developing new civil nuclear installations.”

G8 Leaders Declaration: Recovery and New Beginnings

Assessment:

Country	Lack of Compliance	Work in Progress	Full Compliance
Canada		0	
France		0	
Germany		0	
Italy		0	
Japan		0	
Russia		0	
United Kingdom		0	
United States			+1
European Union			+1
Average Score		+0.22	

Background:

On 26 April 1986, the former Ukrainian Republic of the Soviet Union was the site of the world’s worst nuclear power-plant accident.⁹¹⁶ The health, socioeconomic and environmental consequences of the Chernobyl nuclear disaster highlighted the importance of nuclear safety and security. As a result, the G8 member states committed to the “nuclear safety first” principle, best practices, and the highest level of standards in nuclear safety and security.⁹¹⁷ At the 2002 Kananaskis Summit, the G8 launched the Nuclear Safety and Security Group (NSSG) to provide G8 leaders with strategic policy advice relating to safety and security issues in the peaceful use of nuclear energy.⁹¹⁸

At the 2007 Heiligendamm Summit, the G8 launched the Priority Action Plan to develop a common approach to nuclear radiation protection and regulation. This action plan seeks to: (1) “share [G8 country] experience feedback and (2) develop a common understanding of internationally acceptable safety and security levels in the fields of nuclear installations, radioactive sources, decommissioning, radioactive waste and spent fuel management.”⁹¹⁹ In 2002, G8 leaders agreed to strengthen the Global Nuclear Safety and Security Partnership at every successive summit.

⁹¹⁶“The Forum on Chernobyl’s Legacy: Health, Environment and Socio-economic Impact” (2003-2006) Date of Access 28 October 2010. <http://www.iaea.org/Publications/Booklets/Chernobyl/chernobyl.pdf>

⁹¹⁷G8 Report on Nuclear Safety and Security Group” (2007). Date Accessed October 29, 2010.

http://www.g-8.de/Content/EN/Artikel/_g8-summit/anlagen/report-on-the-nuclear-safety-and-security-group.templateid=raw.property=publicationfile.pdf/report-on-the-nuclear-safety-and-security-group.pdf

⁹¹⁸“Report of the Nuclear Safety and Security Group” (2007) Date of Access October 29, 2010.

http://www.canadainternational.gc.ca/g8/summit-sommet/2007/nuclear_safety-securite_nucleaire_kananaskis.aspx?Lang=eng

⁹¹⁹“Report on the Nuclear Safety and Security Group”(2007) Date of Access November 1, 2010

<http://www.g7.utoronto.ca/summit/2007heiligendamm/g8-2007-nuclear.html>

At the 2009 L'Aquila Summit, the NSSG reaffirmed the G8's commitment to monitor the ongoing projects at Chernobyl managed by the European Bank for Reconstruction and Development (EBRD). The established monitoring procedures oversee the effective conversion of the "destroyed reactor unit into a stable and environmentally safe state"⁹²⁰ and availability of "facilities necessary for the safe decommissioning of the shut down reactor units."⁹²¹ The Chernobyl Shelter Fund (CSF), the Interim Spent Fuel storage facility (ISF-2) and the New Safe Confinement (NSC) also fund additional programs, focused on the safe storage of spent nuclear fuel.⁹²² Both of these projects (ISF-2 and NSC) are scheduled for completion by 2012, but there is still concern that they will suffer significant delays because of the lack of financial resources.⁹²³ Recognizing this lack of resource G8 members pledged to increase funding to the ISF-2 by more than €70 million in 2008.⁹²⁴ At the 2009 L'Aquila Summit, the G8 leaders agreed to continue efforts to raise necessary funds for the two (nuclear safety) projects.⁹²⁵

Commitment Features:

The 2010 Muskoka Summit reaffirmed the need to complete the Chernobyl Safety and Stabilization Projects through continued funding for the Interim Spent Fuel storage facility (ISF-2) and New Safe Confinement (NSC), as well as independent initiatives by each G8 country.⁹²⁶ These independent initiatives include the rehabilitation and provision of equipment for the Kharkov Institute of Physics and Technology by Japan and the funding of projects for the physical protection of radioactive sources by Germany.⁹²⁷

The assessment of the commitment will be based on members' financial support for the Chernobyl Safety and Stabilization Projects and provision of material assistance in the form of personnel or materials for the design and building of the fuel storage facilities or equipment and machinery for the recovery, packaging and transportation of spent nuclear fuel to said facilities.

⁹²⁰ "Report of the Nuclear Safety and Security Group L'Aquila" (8-10 July 2009) Date of Access November 1, 2010. [http://www.g8italia2009.it/static/G8_Allegato/NSSG_2009-Report_final_OK\[1\],0.pdf](http://www.g8italia2009.it/static/G8_Allegato/NSSG_2009-Report_final_OK[1],0.pdf)

⁹²¹ "Report of the Nuclear Safety and Security Group L'Aquila" (8-10 July 2009) Date of Access November 1, 2010. [http://www.g8italia2009.it/static/G8_Allegato/NSSG_2009-Report_final_OK\[1\],0.pdf](http://www.g8italia2009.it/static/G8_Allegato/NSSG_2009-Report_final_OK[1],0.pdf)

⁹²² "Chernobyl Power Plant" (2010) Date Accessed November 13, 2010 <http://new.chnpp.gov.ua/eng/articles.php?Lng=en&pg=14130>

⁹²³ "Report of the Nuclear Safety and Security Group L'Aquila" (8-10 July 2009) Date of Access November 1, 2010. [http://www.g8italia2009.it/static/G8_Allegato/NSSG_2009-Report_final_OK\[1\],0.pdf](http://www.g8italia2009.it/static/G8_Allegato/NSSG_2009-Report_final_OK[1],0.pdf)

⁹²⁴ "Report of the Nuclear Safety and Security Group L'Aquila" (8-10 July 2009) Date of Access November 1, 2010. [http://www.g8italia2009.it/static/G8_Allegato/NSSG_2009-Report_final_OK\[1\],0.pdf](http://www.g8italia2009.it/static/G8_Allegato/NSSG_2009-Report_final_OK[1],0.pdf)

⁹²⁵ "Report of the Nuclear Safety and Security Group L'Aquila" (8-10 July 2009) Date of Access November 1, 2010. [http://www.g8italia2009.it/static/G8_Allegato/NSSG_2009-Report_final_OK\[1\],0.pdf](http://www.g8italia2009.it/static/G8_Allegato/NSSG_2009-Report_final_OK[1],0.pdf)

⁹²⁶ "Report on the G8 Global Partnership" (2010) Date Accessed: 29 October, 2010. <http://canadainternational.gc.ca/g8/summit-sommet/2010/muskoka-globalpartnership-muskoka.aspx?Lang=eng>

⁹²⁷ "Report on the G8 Global Partnership" (2010) Date Accessed: 29 October, 2010. <http://canadainternational.gc.ca/g8/summit-sommet/2010/muskoka-globalpartnership-muskoka.aspx?Lang=eng>

Scoring Guidelines:

-1	Member withdraws from or does not contribute funds to the Chernobyl safety and stabilization projects AND fails to provide support to others to pursue nuclear safety, security and safeguards when developing new civil nuclear installations
0	Member provides support or contributes funds to complete the Chernobyl Safety and Stabilization Project OR provides support to others to pursue nuclear safety, security and safeguards when developing new civil nuclear installations.
+1	Member provides support or contributes funds for the Chernobyl Safety and Stabilization projects AND provides support to others to pursue nuclear safety, security and safeguards when developing new civil nuclear installations.

Lead Analyst: Selena Lucien Shaboian

Canada: 0

Canada has partially complied with its commitment, which includes taking steps towards completing the final stages of the Chernobyl safety and stabilization projects.

On 29 June 2010, the Canadian Nuclear Safety Commission (CNSC) announced the operating licence renewal of Pickering A Nuclear Generating Station and SRY Technologies (Canada) Inc. (SRBT).⁹²⁸ The Commission indicated that Canada exercises strict regulatory control of civil nuclear installations to ensure high levels of nuclear safety in accordance with the Nuclear Safety and Control Act of Canada. The Act guarantees the preservation of national security, supports the usage of nuclear energy and upholds previously established international standards.⁹²⁹

On 3-7 August 2010, two Canadian delegates, Mr. Keith Mombourquette, former vice president of Ontario Power Generation; and Mr. William Harland Wake, director of Used Nuclear Fuel Management Department of Ontario Power Generation, presided over a meeting held by the International Atomic Energy Agency (IAEA) at Chernobyl Nuclear Power Plant.⁸ During the meeting, both experts offered “information on HLW management generated during spent nuclear fuel management, and presented critical lessons learned regarding the implementation of large projects decommissioning nuclear infrastructure building (dry ISF, RAW Treatment Plant) both in Canada and Europe.”⁹³⁰

On 24 September 2010, Canada signed an Administrative Arrangement concerning the “harmonization of regulatory controls on the import and export of radioactive sources” with the governments of Thailand and Australia. The agreement called for safety measures aimed at facilitating the trading of “Category 1 and 2 radioactive sources between Canada and its bilateral partners [...] in a manner consistent with requirements under the International Atomic Energy Agency’s Code of Conduct on the Safety and Security of Radioactive Sources and the IAEA

⁹²⁸ CNSC Announces Decision to Renew the Operating Licence for the Pickering A Nuclear Generating Station (NGS), Canadian Nuclear Safety Commission (Ottawa) 29 June 2010. Date of Access: 17 November 2010.

http://www.nuclearsafety.gc.ca/eng/mediacentre/releases/news_release.cfm?News_release_id=369

⁹²⁹ CNSC Announces Decision to Renew the Operating Licence for SRB Technologies (Canada) Inc. (SRBT), Canadian Nuclear Safety Commission (Ottawa) 30 June 2010. Date of Access: 17 November 2010.

http://www.nuclearsafety.gc.ca/eng/mediacentre/releases/news_release.cfm?News_release_id=370

⁹³⁰ IAEA Expert Missions, Chernobyl NPP (Slavutich) 12 August 2010. Date of Access: 6 December 2010. <http://new.chnpp.gov.ua/eng/news.php?Lng=en>

Guidance on the Import and Export of Radioactive Sources.”⁹³¹ The two agreements are consistent with international efforts to establish a harmonized “regime to ensure the safety and security of Category 1 and 2 radioactive sources.”⁹³²

On 24 September 2010, Canada renewed the Administrative Arrangement, known as the Memorandum of Cooperation on Import and Export of Certain Radioactive Sources, with the United States.⁹³³ Canada also signed Regulatory Cooperation Agreements with France, Finland and Romania. The signing of these agreements allows Canada to foster tighter relations with its signatories to enable freer exchange of information with respect to nuclear research and development.⁹³⁴

On 28 January 2011, Greg Rzentkowski, CNSC Director General, Directorate of Power Reactor Regulation, led a team of 15 international nuclear safety experts to complete a two-week IAEA peer review of Romania’s regulatory framework for nuclear safety.⁹³⁵ The review was aimed at “[highlighting] the Romanian system’s most effective features and [suggesting] areas of improvement for the country’s nuclear regulatory authority.”⁹³⁶

Thus, Canada has been awarded a score of 0 as it provided support to others to pursue nuclear safety, security and safeguards when developing new civil nuclear installations, but failed to provide support or funds for the final stages of the Chernobyl Safety and Stabilization Projects.

Analyst: Kelvin Chen

France: 0

France has partially complied with its commitment to Nuclear Safety. France has provided support to other countries pursuing safety, security and safeguards when developing new civil nuclear installations but has failed to increase funding and support for the Chernobyl Safety and Stabilization Projects to date.

On 28 December 2010, President Nicolas Sarkozy signed two nuclear safety agreements with India. The agreements facilitate the exchange of information and sharing of expertise with respect

⁹³¹ Canada Signs Agreement on Import and Export of Radioactive Sources with Thailand at the International Atomic Energy Agency 54th General Conference, Canadian Nuclear Safety Commission (Ottawa) 24 September 2010. Date of Access: 17 November 2010.

http://www.nuclearsafety.gc.ca/eng/mediacentre/releases/news_release.cfm?News_release_id=373

⁹³² Canada Signs Agreement on Import and Export of Radioactive Sources with Australia at the International Atomic Energy Agency 54th General Conference, Canadian Nuclear Safety Commission (Ottawa) 24 September 2010. Date of Access: 17 November 2010.

http://www.nuclearsafety.gc.ca/eng/mediacentre/releases/news_release.cfm?News_release_id=374

⁹³³ Canada Amends Its Memorandum of Cooperation on Import and Export of Radioactive Sources with the United States at the International Atomic Energy Agency 54th General Conference, Canadian Nuclear Safety Commission (Ottawa) 24 September 2010. Date of Access: 17 November 2010.

http://www.nuclearsafety.gc.ca/eng/mediacentre/releases/news_release.cfm?News_release_id=375

⁹³⁴ Canada Signs Regulatory Cooperation Agreements on Nuclear Safety and Regulation with France, Finland and Romania at the International Atomic Energy Agency 54th General Conference, Canadian Nuclear Safety Commission (Ottawa) 24 September 2010. Date of Access: 17 November 2010.

http://www.nuclearsafety.gc.ca/eng/mediacentre/releases/news_release.cfm?News_release_id=376

⁹³⁵ CNSC Participates in IAEA Mission to Romania, Canadian Nuclear Safety Commission (Ottawa), 28 January 2011. Date of Access: 5 February 2011.

<http://www.nuclearsafety.gc.ca/eng/mediacentre/updates/January-28-2011-CNSC-IRRS-participation.cfm>

⁹³⁶ International Experts Finish IAEA Nuclear Regulatory Review of Romania, IAEA Press Release (Bucharest), 28 January 2011. Date of Access: 5 February 2011.

<http://www.iaea.org/newscenter/pressreleases/2011/prn201101.html>

to the development of new nuclear power plants in India. The exchange of information will facilitate technical cooperation in the areas of nuclear safety and radiation protection.⁹³⁷

In September 2010, Bernard Bigot, the head of the French delegation at the 24th International Atomic Energy Agency (IAEA) Conference outlined France's plans with regards to worldwide nuclear security. Mr. Bigot announced that the IAEA, France and Jordan would sign a trilateral protocol, in order to aid Jordan's development of a new civilian nuclear power program.⁹³⁸ The protocol will help ensure cooperation between the parties involved and strict adherence to IAEA safety standards.⁹³⁹

On 1 September 2010, the French Alternative Energies and Atomic Energy Commission announced the creation of the International Institute for Nuclear Energy. The Institute provides formal training to foreign students on nuclear energy and acts as a "partnership between ministries, educational institutions, research organizations and industry" with the intent to help coordinate international efforts for safe nuclear energy usage.⁹⁴⁰

On 17-28 January 2011, France was one of twelve countries that participated in a two-week IAEA review and assess Romania Nuclear facilities. The aim of the IAEA Integrated Regulatory Review Service (IRRS) Mission was to peer review nuclear safety in Romania based on IAEA Safety Standards.⁹⁴¹

Thus, France has been awarded a score of 0. While France has worked to provide support for the safe development of new civilian nuclear facilities, it has failed to make new contributions to the Chernobyl Safety and Stabilization Projects since the last compliance cycle.

Analyst: Selena Lucien Shaboian

Germany: 0

Germany has partially complied with its commitment to Nuclear Safety by providing support to other countries pursuing safety, security and safeguards when developing new civil nuclear installations. However, Germany has failed to increase funding and support for the Chernobyl Safety and Stabilization Projects.

In January 2010, Germany signed on to a project with the Government of Ukraine aimed at improving the physical protection of nuclear fissile material, including that at the Chernobyl

⁹³⁷ India, France ink two pacts on nuclear safety, The Hindu Online News (India) 9 December 2010. Date of Access: 12 December 2010. <http://www.hindu.com/2010/12/09/stories/2010120965961400.htm>

⁹³⁸ Statement by Bernard Bigot, Chairman of the CEA (French Atomic Energy and Alternative Energies), Head of the French Delegation at the 54th General Conference of the IAEA, IAEA (New York) 20 September 2010. Date of Access: 9 December 2010. <http://www.iaea.org/About/Policy/GC/GC54/Statements/france.pdf>

⁹³⁹ France Stands by Jordan's nuclear programme, The Jordan Times (Jordan) 14 July 2010. Date of Access: 24 December 2010. <http://www.jordantimes.com/?News=28320>

⁹⁴⁰ From Atom to Industry: Towards a Carbon Free Energy Consumption CEA as a RTO Supporting Energy Policy and Industrial Development Presented by Chairman of the CEA, Bernard Bigot at the Alternative Energies and Atomic Energy Commission, (Helsinki) 28 October 2010. Date of Access: 26 December 2010. http://www.ambafrance-fi.org/france_finlande/IMG/pdf/CEA_-_Bernard_Bigot_-_Helsinki_October_28_2010-v4d.pdf

⁹⁴¹ International Experts Finish IAEA Regulatory Review of Romania, IAEA Press Release (Bucharest) 28 January 2011. Date of Access: 5 February 2011. <http://www.iaea.org/newscenter/pressreleases/2011/prn201101.html>

Nuclear Power Plant.⁹⁴² This project is estimated to cost the Ukrainian and British government €6 million and is to be implemented by 2012.⁹⁴³ Since the 2010 Muskoka Summit, however, Germany has not made any announcements regarding the progress and development of the project.

On 20 September 2010, Germany participated in the 54th General Conference of the International Atomic Agency in Vienna by reaffirming its support for the International Project on Innovative Reactors and Fuel Cycles (INPRO) — a forum for discussions on innovative approaches to nuclear infrastructure.⁹⁴⁴ Secretary of State, Jochen Homann, stated, “Germany will continue to support its efforts for a nuclear energy that is safe, secure, cost-effective and sustainable.”

As a member of the European Union, Germany participated in the “Nuclear Energy in Europe, From Acceptance to Ownership” Conference on 16-17 September 2010.⁹⁴⁵ The conference stressed greater cooperation between EU members to help other nations ensure “greatest level of safety and security” when developing nuclear power.⁹⁴⁶

Thus, Germany has been awarded a score 0 as it provided support to others to pursue nuclear safety, security and safeguards when developing new civil nuclear installations, but failed to finalize the final stages of the Chernobyl Safety and Stabilization Projects.

Analyst: Alisa Gorokhova

Italy: 0

Italy has partially complied with its commitment on nuclear safety by cooperating with other countries to jointly promote high levels of nuclear safety. However, Italy has failed to fulfill its commitment to support or fund the final steps of the Chernobyl safety and stabilization project.

The Italian government announced plans to build the country’s first nuclear power plant in 2013.⁹⁴⁷ Paolo Romani, the Minister of Industry and Stefania Prestigiacomo, Minister of the Environment, stated that the new Nuclear Safety agency is “a fundamental move ... that will help Italy integrate its national energy strategy with nuclear power.”⁹⁴⁸ Umberto Veronesi, appointed

⁹⁴² Global Partnership, Federal Foreign Office (Berlin), 2 January 2010. Date of Access: 1 December 2010. http://www.auswaertiges-amt.de/EN/Aussenpolitik/Friedenspolitik/Abbruestung_/globalepartnerschaft_node.html

⁹⁴³ Global Partnership, Federal Foreign Office (Berlin), 2 January 2010. Date of Access: 1 December 2010. http://www.auswaertigesamt.de/EN/Aussenpolitik/Friedenspolitik/Abbruestung_/globalepartnerschaft_node.html

⁹⁴⁴ Statement by Jochen Homann, Minister of Economics and Technology Head Delegation of Germany at the 54th General Conference of the IAEA, IAEA (New York), 20 September 2010. Date of Access: 9 December 2010. <http://www.iaea.org/About/Policy/GC/GC54/Statements/germany.pdf>

⁹⁴⁵ Nuclear Energy in Europe, From Acceptance to Ownership, Confrontations Europe (Paris), 16 September 2010. Date of Access: 7 December 2010. http://www.confrontations.org/spip.php?Page=evenement&id_article=780

⁹⁴⁶ Nuclear Energy in Europe, From Acceptance to Ownership, Confrontations Europe (Paris), 16 September 2010. Date of Access: 7 December 2010. http://www.confrontations.org/spip.php?Page=evenement&id_article=780

⁹⁴⁷ Italy Still on Track with Nuclear Energy Plans, Reuters UK Edition (Milan) 27 September 2010. Date of Access: 16 November 2010. <http://uk.reuters.com/article/iduklde68q1pp20100927>

⁹⁴⁸ Italy Sets Up Key Nuclear Safety Body, Reuters Africa (Rome) 5 November 2010. Date of Access: 16 November 2010. <http://af.reuters.com/article/energyoilnews/idafld6a411820101105>

as the head of the new agency, reiterated that “[nuclear] safety is paramount” as Italy undertakes the next steps in nuclear energy development.⁹⁴⁹

On 12 November 2010, Italy participated in a two-week International Atomic Energy Agency (IAEA) review of the governmental and regulatory framework for nuclear safety in the United States. The Government of Italy sent a delegate to join a team of 19 international experts to conduct an Integrated Regulatory Review Service (IRRS) mission. The team provided a peer review based on the IAEA Safety Standards.⁹⁵⁰

Thus, Italy has been awarded a score of 0 as it has provided support to others to pursue nuclear safety, security and safeguards when developing new civil nuclear installations, but failed to support the final stages of the Chernobyl Safety and Stabilization Projects.

Analyst: Nikola Jankovic

Japan: 0

Japan has partially complied with its commitment to Nuclear Safety. Japan has provided support to other countries pursuing safety, security and safeguards when developing new civil nuclear installations and support for the Chernobyl Safety and Stabilization Projects.

Japan is moving forward with the rehabilitation of, and provision of equipment for, the Kharkov Institute of Physics and Technology in Ukraine.⁹⁵¹ Japan has also begun the process of providing equipment for a long-term storage facility for reactor compartments. However, actual delivery at Razboynik Bay is yet to take place.⁹⁵² In cooperation with the National Committee for the Nuclear Regulation of Ukraine and the National Economic Energy Generating Company, Japan continues to send specialists to Ukrainian Atomic Electric Stations to participate in practical workshops directed at nuclear safety.⁹⁵³

On September 20, Japan participated at the 54th General Conference of the International Atomic Agency. H.E. Banri Kaieda, Minister of State for Science and Technology, announced that “Japan will promote the international sharing of its own knowledge and experience on seismic safety of nuclear power plant generation facilities”⁹⁵⁴ and in areas of “preparedness and response including disaster prevention, radioactive waste management and others.”⁹⁵⁵ Japan declared its support for

⁹⁴⁹ Doctor Heading Italy’s New Atomic Agency Pledges to Sell Nuclear Revival, Bloomberg (Rome) 12 November 2010. Date of Access: 18 November 2010. <http://www.bloomberg.com/news/2010-11-12/doctor-heading-italy-s-new-atomic-agency-pledges-to-sell-nuclear-revival.html>

⁹⁵⁰ NRC Undergoes IAEA Expert Review, Nuclear Engineering International Magazine 12 November 2010). Date of Access: 18 November 2010.

<http://www.neimagazine.com/story.asp?Sectioncode=132&storycode=2058168>

⁹⁵¹ Report on the G-8 Global Partnership 2010, Government of Canada (Ottawa), 3 August 2010. Date of Access: 9 December 2010. <http://canadainternational.gc.ca/g8/summit-sommet/2010/muskoka-globalpartnership-muskoka.aspx?Lang=eng>

⁹⁵² Report on the G-8 Global Partnership 2010, Government of Canada (Ottawa), 3 August 2010. Date of Access: 9 December 2010. <http://canadainternational.gc.ca/g8/summit-sommet/2010/muskoka-globalpartnership-muskoka.aspx?Lang=eng>

⁹⁵³ Science and Technology Cooperation, Embassy of Ukraine in Japan (Tokyo). Date of Access: 9 December 2010 <http://www.mfa.gov.ua/japan/en/25602.htm>

⁹⁵⁴ Statement by H.E. Mr. Banri KAIEDA, Minister of Science and Technology Policy Head Delegation of Japan at the 54th General Conference of the IAEA, IAEA (New York), 20 September 2010. Date of Access: 9 December 2010. <http://www.iaea.org/About/Policy/GC/GC54/Statements/japan.pdf>

⁹⁵⁵ Statement by H.E. Mr. Banri KAIEDA, Minister of Science and Technology Policy Head Delegation of Japan at the 54th General Conference of the IAEA, IAEA (New York), 20 September 2010. Date of Access: 9 December 2010. <http://www.iaea.org/About/Policy/GC/GC54/Statements/japan.pdf>

these initiatives through “activities of the Asian Nuclear Safety Network ... and by continuing extra-budgetary contributions” for these valuable initiatives.⁹⁵⁶ Japan is a recent member of the Response Assistance Network (RANET) of the IAEA and will “promote the use of its own experts’ knowledge and expertise in the case of nuclear accidents.”⁹⁵⁷

Though Japan has shown considerable resolve in creating awareness about the importance of nuclear safety, it is yet to contribute funds and equipment towards finalizing the Chernobyl Safety and Stabilization Projects.

Thus, Japan has been awarded a score of 0 given its considerable resolve in creating awareness about the importance of nuclear safety. However, it has yet to contribute funds and equipment towards finalizing the Chernobyl Safety and Stabilization Projects.

Analyst: Mehreen Imtiaz

Russia: 0

Russia has partially complied with its commitment on nuclear safety. It has cooperated with other countries to jointly promote high levels of nuclear safety. However, Russia has failed to fulfill their commitment to support or fund the final steps of the Chernobyl safety and stabilization project.

In August 2010, the Russian-supported Bushehr Nuclear power plant project in Iran was completed. According to the Russian Ministry of Foreign Affairs “the Bushehr project is unique in terms of strict adherence to the nuclear non-proliferation regime.” During the entire period of operation of the plant, fuel will be delivered by Russia on the conditions of its subsequent return. Furthermore, this entire process of operation, supply and the return of fuel will be under full IAEA supervision. This decreases the possibility of any manipulation of spent nuclear fuel.⁹⁵⁸

On 2 December 2010, the Russian Ministry of Foreign Affairs and the International Atomic Energy Agency (IAEA) signed the agreement on Russia’s US\$6.5 million contribution to the Nuclear Security Fund (NSF) in 2010-2015. These funds will be used, inter alia, to improve measures of enhancing nuclear safety in the IAEA member-states.⁹⁵⁹

Thus, Russia has been awarded a score of 0 as it has provided support to others to pursue nuclear safety, security and safeguards when developing new civil nuclear installations, however, it has failed to provide support, or contribute funds, to complete the Chernobyl Safety and Stabilization Project.

Analyst: Mark Rakhmangulov

⁹⁵⁶ Statement by H.E. Mr. Banri KAIEDA, Minister of Science and Technology Policy Head Delegation of Japan at the 54th General Conference of the IAEA, IAEA (New York), 20 September 2010. Date of Access: 9 December 2010. <http://www.iaea.org/About/Policy/GC/GC54/Statements/japan.pdf>

⁹⁵⁷ Statement by H.E. Mr. Banri KAIEDA, Minister of Science and Technology Policy Head Delegation of Japan at the 54th General Conference of the IAEA, IAEA (New York), 20 September 2010. Date of Access: 9 December 2010. <http://www.iaea.org/About/Policy/GC/GC54/Statements/japan.pdf>

⁹⁵⁸ Russian MFA Press and Information Department Comment in Relation to the Upcoming Launch of the Bushehr Nuclear Power Plant in Iran, Ministry of Foreign Affairs of Russia 20 August 2010. Date of Access: 15 January 2010. http://www.mid.ru/brp_4.nsf/e78a48070f128a7b43256999005bcbb3/e7dc36902d93374dc32577850053a37b

⁹⁵⁹ About signing of an agreement between Russian Ministry of Foreign Affairs and the International Atomic Energy Agency, Ministry of Foreign Affairs of Russia 3 December 2010. Date of Access: 10 January 2010. http://www.mid.ru/brp_4.nsf/0/893C13DEC18B0D75C32577EE0059C518

United Kingdom: 0

The United Kingdom has partially complied with its commitment on nuclear safety. It has cooperated with other countries to jointly promote high levels of nuclear safety but it has failed to take any action regarding support and funding the final steps of the Chernobyl safety and stabilization project during this compliance cycle.

At the G8 Muskoka Summit, the United Kingdom reaffirmed its commitment to build a long-term storage facility for radioactive sources within the Chernobyl Exclusion Zone.⁹⁶⁰ On 31 August 2009, the British Ambassador to Ukraine, Leigh Turner, signed a Memorandum of Understanding with the Ukrainian Minister of Emergencies, Voldymyr Shandra, to allocate £2.1 million for “a secure storage facility to house used radioactive sources from across Ukraine” and establish “a framework for the construction of the UK-funded Sealed Radioactive Sources Centralised Store inside the Chernobyl Exclusion zone.”⁹⁶¹ This joint effort between the Government of Ukraine and the United Kingdom is scheduled for completion in 2011.⁹⁶²

Through joint partnership with the EU, the United Kingdom aims “to improve the management of disused sealed radioactive sources (SRS) in the Ukraine”⁹⁶³ through the design and building of a “new secure store for highly active SRS” within the territories of the Chernobyl exclusion zone. The construction for this project commenced in late 2010.

The United Kingdom provides support to countries wishing to develop civil nuclear programmes with “technical assistance, training, and sharing of expertise.”⁹⁶⁴ It has recently signed a Nuclear Cooperation Agreement with Jordan to advise and help construct a new civil nuclear power plant.⁹⁶⁵ The United Kingdom also funds improvements to civil nuclear security structure in Russia as part of its contribution to the Global Threat Reduction Programme (GTRP).⁹⁶⁶ Five civilian sites are now complete and work on the GTRP’s “two final physical protection upgrade projects in Russia” will be complete by 2011.

⁹⁶⁰ UK and Ukraine Agree to Build Secure Store for Radioactive Sources, British Embassy (Kyiv), 1 September 2009. Date of Germanvil nuclear developments.he Chernobyl Projects and providing support to other when deveoping on in 2011 Chernobyl Exclusion zone. Date of Access: 1 December 2010.

<http://ukinukraine.fco.gov.uk/en/news/?View=News&id=20781866>

⁹⁶¹ UK and Ukraine Agree to Build Secure Store for Radioactive Sources, British Embassy (Kyiv), 1 September 2009. Date of Access: 1 December 2010

<http://ukinukraine.fco.gov.uk/en/news/?View=News&id=20781866>

⁹⁶² UK and Ukraine Agree to Build Secure Store for Radioactive Sources, British Embassy (Kyiv), 1 September 2009. Date of Access: 1 December 2010

<http://ukinukraine.fco.gov.uk/en/news/?View=News&id=20781866>

⁹⁶³ UK Nuclear Security Programme, Department of Energy and Climate Change (London). Date of Access: 7 February 2011.

http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/nuclear/nonprolif/global_thre_at/portfolio/security/security.aspx

⁹⁶⁴ Foreign and Commonwealth Office: Nuclear Questions Answered (London), 16 September 2010. Date of Access: 02 January 2010. <http://www.fco.gov.uk/en/news/latest-news/?View=News&id=22881051>

⁹⁶⁵ The U.S.-UAE Peaceful Nuclear Cooperation Agreement: A Gold Standard or Fool’s Gold? Center for Strategic and International Studies (United States) 30 November 2010. Date of Access: 2 January 2010.

http://csis.org/files/publication/101130_mcgoldrick_usuauenuclear.pdf

⁹⁶⁶ UK Nuclear Security Programme, Department of Energy and Climate Change (London). Date of Access: 7 February 2011.

http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/nuclear/nonprolif/global_thre_at/portfolio/security/security.aspx

Thus, the United Kingdom has been awarded 0 as it has provided support to others to pursue nuclear safety, security and safeguards when developing new civil nuclear installations, but failed to support the final stages of the Chernobyl Safety and Stabilization Projects within the current compliance cycle.

Analyst: Alisa Gorokhova

United States: +1

The United States has fully complied with its commitment to Nuclear Safety as it has provided support to other countries pursuing safety, security and safeguards when developing new civil nuclear installations and has increased funding and support for the Chernobyl Safety and Stabilization Projects.

On 2 July 2010, U.S. Secretary of State, Hillary Clinton, and Foreign Minister of Ukraine, Kostyantyn Gryshchenko, met in Kyiv, Ukraine and co-chaired the second session of the United States-Ukraine Strategic Partnership Commission. Both sides agreed to continue efforts to safeguard the Chernobyl nuclear reactor site, and reaffirmed the importance of continuing international assistance, including the Shelter Fund financing which aims to convert the site into an ecologically safe system.⁹⁶⁷

On 1 December 2010, at the 17th meeting of the Joint Coordinating Group, Deputy Administrator for Defense Nuclear Non-proliferation, Anne Harrington, reaffirmed the partnership of the United States with Russia in improving nuclear security, and intimating that, “the United States and Russia remain committed partners in improving nuclear security and preventing the proliferation of nuclear material around the world. These meetings provide us with an opportunity to work collaboratively to improve nuclear security and share best practices.”⁹⁶⁸ Interaction at the meeting highlighted future areas of cooperation including developing a forum for sharing best practices, extending the life cycle of physical protection systems, and the development of a network of regional technical training centers in Russia.⁹⁶⁹

On 22 December 2010, The National Nuclear Security Administration (NNSA) announced the removal of 13 kilograms of Russian-origin highly enriched uranium (HEU) spent fuel from the Vinca Institute of Nuclear Science in Serbia.⁹⁷⁰ NNSA’s Global Threat Reduction Initiative (GTRI) worked in partnership on this mission under a cost-sharing arrangement with the Republic of Serbia, the International Atomic Energy Agency (IAEA), the Nuclear Threat Initiative (NTI), the Czech Republic, the Russian Federation and the European Union.⁹⁷¹

⁹⁶⁷ Joint Statement of the Second Session of the United States-Ukraine Strategic Partnership Commission, Embassy of Ukraine in Japan (Tokyo), 6 July 2010. Date of Access: 9 December 2010.

<http://www.mfa.gov.ua/japan/en/22548.html>

⁹⁶⁸ NNSA, Russia Cooperate to Enhance Nuclear Security, National Nuclear Security Administration (Washington, D.C.), 3 December 2010. Date of Access: 9 December 2010.

<http://nnsa.energy.gov/mediaroom/pressreleases/jcg120310>

⁹⁶⁹ NNSA, Russia Cooperate to Enhance Nuclear Security, National Nuclear Security Administration (Washington, D.C.), 3 December 2010. Date of Access: 9 December 2010.

<http://nnsa.energy.gov/mediaroom/pressreleases/jcg120310>

⁹⁷⁰ NNSA Announces Removal of All Highly Enriched Uranium (HEU) from Serbia, National Nuclear Security Administration (Washington, D.C.), 22 December 2010. Date of Access: 7 February 2011.

<http://nnsa.energy.gov/mediaroom/pressreleases/serbiaheu122210>

⁹⁷¹ NNSA Announces Removal of All Highly Enriched Uranium (HEU) from Serbia, National Nuclear Security Administration (Washington, D.C.), 22 December 2010. Date of Access: 7 February 2011.

<http://nnsa.energy.gov/mediaroom/pressreleases/serbiaheu122210>

On 31 December 2010, The National Nuclear Security Administration (NNSA) announced the removal of 50 kilograms of highly enriched Uranium from three sites in Ukraine.⁹⁷² The shipments were completed in a joint effort with Ukrainian authorities, the International Atomic Energy Agency, the Russian Federation, and the United Kingdom. NNSA also provided the Ukrainians with new safety equipment and agreed to work with Ukraine and Russia to build a state-of-the-art neutron source facility at the Kharkiv Institute for Physics and Technology.⁹⁷³

On 19 January 2011, in a ceremony at the Defense of Energy headquarters in Washington, Deputy Secretary of Energy Daniel Poneman and Vice Minister SUN Yibiao of the General Administration of China Customs signed a Memorandum of Understanding (MOU) that would pave the way for the establishment of a radio detection-training center in Qinhuangdao, China.⁹⁷⁴ The United States and China also agreed to establish a Center of Excellence in China to promote effective nuclear security and safeguards.⁹⁷⁵

Thus, the United States has been awarded a score of +1 for its commitment towards the Chernobyl projects and for providing support to others when developing new civil nuclear developments.

Analyst: Mehreen Imtiaz

European Union: +1

The European Union has partially complied with its commitment towards completing the final stages of the Chernobyl Safety and Stabilization Projects and providing support to others to pursue nuclear safety, security and safeguard when developing new civil nuclear installations.

On 2 November 2010, the European Atomic Energy Community (Euratom) and the United States National Nuclear Security Administration (NNSA) signed an agreement at the International Atomic Energy Agency (IAEA) International Nuclear Safeguards Symposium to “formally expanded their cooperation in the field of nuclear material safeguards research and development to include nuclear security.”⁹⁷⁶

On 3 November 2010, the European Commission put forth a directive proposing a set of EU safety standards in the treatment of spent fuel and radioactive waste that would apply to all its Member states.⁹⁷⁷ This initiative leads to a higher standard of nuclear waste management across the European Union and the consolidation of deep disposal repositories that provide a long-term

⁹⁷² NNSA Achieves Milestone in Removal of HEU from Ukraine, National Nuclear Security Administration (Washington, D.C.), 31 December 2010. Date of Access: 7 February 2011.

<http://nnsa.energy.gov/mediaroom/pressreleases/ukraineheuremoval>

⁹⁷³ NNSA Achieves Milestone in Removal of HEU from Ukraine, National Nuclear Security Administration (Washington, D.C.), 31 December 2010. Date of Access: 7 February 2011.

<http://nnsa.energy.gov/mediaroom/pressreleases/ukraineheuremoval>

⁹⁷⁴ U.S., China Partner to Counter Nuclear Smuggling, America.gov (Washington, D.C.), 19 January 2011. Date of Access: 7 February 2011.

<http://www.america.gov/st/texttrans-english/2011/January/20110120155623su0.750755.html>

⁹⁷⁵ U.S., China sign Agreement to Establish Center of Excellence on Nuclear Security, National Nuclear Security Administration, (Washington, D.C.), 19 January 2011. Date of Access: 7 February 2011.

<http://nnsa.energy.gov/mediaroom/pressreleases/chinacenterofexcellence01.19.11>

⁹⁷⁶ EU and US Expand Their Collaboration to Nuclear Security R&D, European Commission (Brussels) 2 November 2010. Date of Access: 2 February 2011.

http://ec.europa.eu/dgs/jrc/index.cfm?id=2820&obj_id=562&dt_code=HLN&lang=en

⁹⁷⁷ High Safety Standards for Managing Nuclear Waste, European Commission (Brussels) 3 November 2010. Date of Access: 17 November 2010. http://ec.europa.eu/news/energy/101103_1_en.htm

solution to storing radioactive waste. The directive would ask the EU countries to “present national programmes, indicating when, where and how they will construct and manage final repositories.”⁹⁷⁸ The Commission emphasized that it is crucial for all EU countries to introduce frameworks to ensure that all types of nuclear waste is handled in a “responsible and transparent manner.”⁹⁷⁹

On 19 November 2010, the Council of the European Union (EU) signed an agreement with the IAEA and made a €10 million contribution to the Nuclear Security Fund. The funds support various IAEA operations aimed at the elimination of nuclear terrorism, which IAEA Deputy Director General Denis Flory describes as, “a serious threat in today’s world, creating a level of global uncertainty and tension.”⁹⁸⁰

On 14 December 2010, the European Bank for Reconstruction and Development (EBRD) released a report stating that pledges towards the Interim Storage Facility-2 (ISF-2) and New Safe Confinement will take place in April 2011. Concerns still persist, however, as funding for the ISF-2 remains insufficient to cover the costs of the program.⁹⁸¹

On 4 February 2011, the EU heads of government held an EU summit to “discuss ways to link European energy networks, increase energy efficiency and to reduce import dependence.”⁹⁸² Among other items, the European Council declared “the EU should take initiatives” on the international stage to “[promote] the highest standards for nuclear safety”⁹⁸³

Thus, the European Union has been awarded a score of +1 for its commitment towards finalizing the final stages of the Chernobyl Safety and Stabilization Projects and providing support to other to pursue nuclear safety, security and safeguard when developing new civil nuclear installations.

Analyst: Kelvin Chen

⁹⁷⁸ Nuclear Waste: Commission Proposes Safety Standards for Final Disposal, European Commission (Brussels) 3 November 2010. Date of Access: 17 November 2010.

<http://europa.eu/rapid/pressreleasesaction.do?Reference=IP/10/1460&format=HTML&aged=0&language=EN&guiLanguage=en>

⁹⁷⁹ Management of Nuclear Waste: Commission Proposes High Level EU Standards, European Commission (Brussels) 3 November 2010. Date of Access: 17 November 2010.

http://ec.europa.eu/energy/nuclear/waste_management/waste_management_en.htm

⁹⁸⁰ EU Renews Financial Support to Nuclear Security Fund, International Atomic Energy Agency (Vienna) 19 November 2010. Date of Access: 28 November 2010.

<http://www.iaea.org/newscenter/News/2010/eusupport.html>

⁹⁸¹ Chernobyl 25 Years On: New Safe Confinement and Interim Storage Facility 2, European Bank for Reconstruction and Development (London) 14 December 2010. Date of Access: 22 December 2010.

<http://www.ebrd.com/english/downloads/research/factsheets/chernobyl25.pdf>

⁹⁸² EU Summit: Energy, Innovation, Economy, The Hungarian Presidency of the Council of the European Union (Brussels) 4 February 2011. Date of Access: 5 February 2011. <http://www.eu2011.hu/news/eu-summit-energy-innovation-economy>

⁹⁸³ Conclusions on Energy, Council of the European Union (Brussels) 4 February 2011. Date of Access: 5 February 2011. http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/ec/119141.pdf