




Media Aid

Brazil -- Websites, Online Publications Seek To Inform Public on Nuclear Activities

Brazil's foremost nuclear authority, the National Nuclear Energy Commission (CNEN) and its affiliates offer easily accessible and navigable websites aimed at providing information to the public and promoting the acceptance of Brazil's nuclear program, nuclear plans, and the peaceful use of nuclear energy. Through their website, Eletromuclear -- the company charged with building and operating Brazil's nuclear power plants -- imparts up-to-date information on the existing Angra I and II plants and the future plans for the completion of Angra III. The Navy's website provides positive but limited information about its nuclear program, including plans for a nuclear-propelled submarine. Nongovernment websites offer specialized publications that follow Brazilian and worldwide trends, including special events and conferences.^a

CNEN's Nuclear Information Center (CIN)




CNEN is the main agency under the Ministry of Science and Technology and is responsible for financing and controlling Brazil's nuclear activities. CNEN has its own website that elaborates various aspects of its mission and updates information on its activities. CNEN's Nuclear Information Center (CIN) has also created the Portal of Nuclear Energy -- which is affiliated with a multi-national database belonging to the IAEA called the International Nuclear Information System (INIS)^b -- to increase public understanding of the nuclear community. The CIN also coordinates other web pages, which serve as search engines to access journals, papers, and reports written in Brazil or abroad on relevant topics.


Source	Source Information	Source Assessment
<p>Comissao Nacional de Energia Nuclear (CNEN)</p> <p>National Nuclear Energy Commission</p>  <p>www.cnen.gov.br</p>	<p>The CNEN's Portuguese-language website states that its mission is to guarantee the secure and peaceful use of nuclear energy, while developing and making available nuclear technology to improve the well being of Brazilians. The home page lists the names and locations of the 14 CNEN units throughout Brazil.</p>	<p>This site is maintained regularly and highlights the various applications of nuclear technology that Brazil is developing. Detailed information is presented on Brazil's nuclear security guidelines and nuclear-related social projects.</p>

^a For more information on Brazilian nuclear facilities and agencies, see the 9 February OSC Report, **Survey of Nuclear Agencies, Facilities** (LAP20090209465001).

^b For more information on INIS, see the 17 June OSC Media Aid, **International Nuclear Information System (INIS) Database** (GMF20090617425001) and the 16 July OSC Report, **IAEA Info Service Lists Member Countries, Liaison Officers** (GMP20090716308001).

This OSC product is based exclusively on the content and behavior of selected media and has not been coordinated with other US Government components.




Source	Source Information	Source Assessment
<p>Centro de Informacoes Nucleares (CIN) -- Portal do Conhecimento Nuclear</p> <p>Nuclear Information Center (CIN) -- <i>Portal of Nuclear Knowledge</i></p>  <p><i>portalnuclear.cnen.gov.br</i></p>	<p>CIN created this portal to complement the IAEA's INIS. According to its home page, CIN represents Brazil in INIS and guarantees Brazilians free access to information from that database. Through the portal, users can locate nuclear information on a single, centralized site, including: nuclear data, installations, suppliers, events, news, journals, organizations, and information services.</p> <p>The portal also provides access via links to the <i>Rede de Bibliotecas (Library Network)</i> and to the <i>LivRe!</i> database.</p>	<p>This site is useful for its up-to-date listings of nuclear conferences in Brazil and elsewhere. Article postings updated weekly allow the user to stay current on nuclear trends. The page's interface, however, is busy, and its Portuguese- and English-language resources are intermingled in a disorganized fashion.</p>
<p>Rede de Bibliotecas</p> <p><i>Library Network</i></p>  <p><i>bibliotecas.cnen.gov.br/cgi</i></p>	<p>The <i>Library Network</i> is composed of the seven CNEN libraries located at various CNEN facilities throughout Brazil. Its portal, still under construction, was developed by the CIN.</p>	<p>It appears that this portal will be a reliable means to search for titles and topics of books, reports, and journals available in CNEN libraries.</p>
<p>LivRe!</p>  <p><i>livre.cnen.gov.br</i></p>	<p>Another portal developed by CIN, the <i>LivRe!</i> home page states its aim is to "facilitate the identification and free access to journals available on the Internet."</p> <p>The portal provides worldwide coverage of scientific journals, magazines, bulletins and newsletters. It announces "free access to journals on the Internet -- 3656 titles."</p>	<p>An easy-to-use search capability allows access to journals in Portuguese, English, German, Italian, and Spanish. Another section lists periodicals incorporated in the "last 30 days."</p>

Source	Source Information	Source Assessment
<p><i>Web Nuclear -- Un Boletín de Rrian</i></p> <p><i>Nuclear Web -- A Rrian Bulletin</i></p>  <p><i>cin.cnen.gov.br/rrian/web-nuclear.htm</i></p>	<p>The CIN coordinates <i>Web Nuclear</i>, a free monthly online bulletin belonging to the Regional Network of Nuclear Information (Rrian), a regional Latin American organization formed to propagate the shared use of nuclear information and resources. Participating countries monitor, select, and then post recent issues of electronic publications, websites, and events related to nuclear energy. The bulletin is free of charge and edited by Maximo Rudeli (Argentina). Its home page says it covers "all the subjects included in the INIS database."</p> <p>The following countries participate in Rrian: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Chile, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Paraguay, Peru, Uruguay, and Venezuela.</p>	<p>The page offers bulletin issues going back to September 2006.</p> <p>Its multilingual home page highlights links to many recent issues and titles of Brazilian scientific journals, international reports and papers, worldwide nuclear and related conferences, and future planned events.</p>


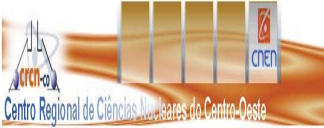
This OSC product is based exclusively on the content and behavior of selected media and has not been coordinated with other US Government components.

CNEN's Institutes, Regional Centers

The websites of four CNEN facilities impart information on the study of nuclear technology for social applications within Brazil.

Source	Source Information	Source Assessment
<p>Instituto de Pesquisas Energeticas e Nucleares (IPEN)</p> <p>Institute for Nuclear and Energy Research (IPEN)</p>  <p>www.ipen.br</p>	<p>The home page of CNEN's main research institute states that its mission is to "improve Brazilians' quality of life by developing nuclear technology, products, and services through the institute's activities in radiation and radioisotope applications, nuclear reactors, materials, the fuel cycle, radioprotection, and dosimetry."</p>	<p>Users are unable to access the English-language version of the site due to a broken link. On all other accounts, the site's interface is orderly and easy to navigate. A detailed site map offers access to the different research centers, groups, and names of scientists. The site map also directs the user to a library offering IPEN's scientific production for 2004-2009.</p> <p>A well-maintained "agenda" provides dates of Brazilian symposia and conferences.</p>
<p>Instituto de Engenharia Nuclear (IEN)</p> <p>Nuclear Engineering Institute (IEN)</p>  <p>www.ien.gov.br</p>	<p>IEN's home page identifies its main products and services as patent publications, technology licensing, radiopharmaceuticals, material essays and analysis, and radioactive waste collecting.</p>	<p>This website is well-organized and information is presented in an easy-to-read format. All of the site's features are offered in English and Portuguese, with the exception of current news items, which are only available in Portuguese.</p>
<p>Instituto de Radioprotecao e Dosimetria (IRD)</p> <p>Radioprotection and Dosimetry Institute (IRD)</p>  <p>www.ird.gov.br</p>	<p>The IRD's website declares that their mission is to act "with excellence" in the areas of radioprotection, dosimetry, and metrology by offering services to control the secure use of ionized radiation and nuclear technology.</p>	<p>A well-kept and updated website that is particularly useful as a source of current gray literature, educational theses, postscripts, and documents published by the institute.</p>



This OSC product is based exclusively on the content and behavior of selected media and has not been coordinated with other US Government components.

Source	Source Information	Source Assessment
<p>Centro de Desenvolvimento da Tecnologia Nuclear (CDTN)</p> <p>Nuclear Technology Development Center (CDTN)</p>  <p>www.cdtm.br</p>	<p>On its home page, the CDTN identifies itself as the first Brazilian institute -- created in 1952 -- dedicated to nuclear research. According to the site, the center's multi-disciplinary competency allows it to contribute nuclear technology capabilities in agriculture, health, reactors, and gems.</p>	<p>A detailed site map allows users access to information on research groups, products, and services pertaining to nuclear technology, safety, and materials. One English-language page highlights the CDTN's history, staff composition, services, and current projects; the rest of the site is in Portuguese. The site's significant flaw is the broken "news" link.</p>
<p>Centro Regional de Ciências Nucleares do Centro Oeste (CRCN-CO)</p> <p>Regional Nuclear Science Center of the Center-West (CRCN-CO)</p>  <p>www.crcn-co.cnen.gov.br/mapa-do-sitio.asp</p>	<p>The CRCN-CO is located in Goiania, Goias State. Its website describes its mission as exercising "institutional control over radioactive waste and develop[ing] solutions using nuclear technology to meet the development demands of Brazil's Center-West region."</p> <p>Its stated vision for 2010 is to become a R&D center in S&T.</p>	<p>A simple site map in Portuguese directs users to the center's research and services. The rest of the site, which includes a menu and search capability, is in Portuguese.</p> <p>The site links to the CNEN's <i>LivRe!</i> and <i>Library Network</i> portals and to the INIS database.</p>

This OSC product is based exclusively on the content and behavior of selected media and has not been coordinated with other US Government components.

CNEN Subsidiary Companies


Websites belonging to CNEN's two subsidiary companies -- Nuclear Industries of Brazil (INB) and Nuclebras Heavy Industries (NUCLEP) -- provide information on uranium mining and enrichment and heavy industries. They target the general public, are bilingual, and feature many in graphics.

Source	Source Information	Source Assessment
<p>Industrias Nucleares do Brasil (INB)</p> <p>Nuclear Industries of Brazil (INB)</p>  <p><i>www.inb.gov.br</i></p>	<p>The site's home page states that the INB is involved in the entire uranium production chain, from mining to production of the fuel that powers the reactors in nuclear plants.</p>	<p>The website is almost fully accessible in English and Portuguese, but up-to-date news is listed only in Portuguese. The site map's ease of navigation quickly places a wealth of information about INB units and locations, uranium mining and production, the nuclear fuel factory in Resende, and other aspects of nuclear energy production.</p>
<p>NUCLEP -- Nuclebras Equipamentos Pesados S.A.</p> <p>Nuclebras Heavy Industries</p>  <p><i>www.nuclep.gov.br</i></p>	<p>NUCLEP's website claims the company is at the forefront of the production of heavy components for nuclear-electrical plants in order to meet Brazil's needs.</p>	<p>The website is fully accessible in English and Portuguese. Unlike the other websites listed, NUCLEP's website relies on images rather than words to convey its purpose, and the site has no news or events links.</p>

This OSC product is based exclusively on the content and behavior of selected media and has not been coordinated with other US Government components.


Eletronuclear

According to its home page, Eletronuclear was established in 1997 under the Ministry of Mines and Energy to build and operate nuclear power plants. The website contains detailed information on the history and operations of the Angra I and II power plants, and a special section on Angra III plant, under construction. It also addresses safety, environmental, and waste issues. The site seeks to promote public support for nuclear energy.

Source	Source Information	Source Assessment
<p>Eletronuclear -- Eletrobras Thermonuclear S.A.</p>  <p>www.eletronuclear.gov.br</p>	<p>Eletronuclear provides a link to the 2008 "Rapid Response Guide," a 134 page document in PDF format that contains frequently asked questions on aspects of Brazil's nuclear program and goals, including existing and planned power stations, waste management, and environmental and cost issues.</p>	<p>This website is attractive and easily navigable, with an extensive bilingual English- and Portuguese-language site map, information bulletins, and a special section on workshops and events.</p> <p>Neither the "Rapid Response Guide" nor the special section on Angra III is available in English.</p>


Brazilian Navy

The Navy's website, *Marinha do Brasil* (www.mar.mil.br/), links to the Navy's official document on its nuclear program (submarine nuclear propulsion) and to the web page of the Navy Technology Center in Sao Paulo (CTMSP), which is the center responsible for researching nuclear-propelled submarines. The Navy website's "Marinha Informa" section on the home page provides regular updates on Brazilian plans to develop submarine nuclear propulsion technology. It also features information about negotiations with France to build four conventional submarines and transfer non-nuclear technology to build a fifth nuclear-propelled one.^c

Source	Source Information	Source Assessment
<p><i>Conheça o Programa Nuclear da Marinha</i></p> <p><i>Know the Navy's Nuclear Program</i></p>  <p>www.mar.mil.br/pnm/pnm.htm</p>	<p>This web page, accessed from the Navy's home page, is the official document of the Navy's nuclear program.</p> <p>The bottom of the document features a link to the CTMSP.</p>	<p>This is a useful Portuguese-language document that has not been updated.</p>


^c For more information on the Brazilian Navy's nuclear project, see the 9 December 2008 OSC Report, **Brazil Resumes Delayed Nuclear Projects** (LAP20081209471001).

This OSC product is based exclusively on the content and behavior of selected media and has not been coordinated with other US Government components.

Source	Source Information	Source Assessment
<p>Centro Tecnológico da Marinha em São Paulo (CTMSP)</p> <p>Navy Technology Center in São Paulo (CTMSP)</p>  <p>www.mar.mil.br/ctmsp/</p>	<p>The CTMSP's web page is accessed through a link from the "Conheça o Programa Nuclear da Marinha" web page and describes the center's mission and objectives, laboratories, and activities.</p> <p>The site identifies the center's three main projects as: the fuel cycle project; the Nucleoelectric Energy Generation Laboratory (Labgene) Project, and the infrastructure project.</p>	<p>This Portuguese-language web page is superficial in content, has an undeveloped site map, and does not address Brazil's program in any detail beyond generalities about nuclear submarines and fission.</p> <p>The page offers an updated calendar of events section.</p>



Nongovernment Organizations, Websites, Publications

Selected nongovernment organizations have their own websites and produce online publications with the goal of disseminating nuclear information to the public and promoting nuclear energy as an alternative energy source.

Source	Source Information	Source Assessment
<p>Associação Brasileira de Energia Nuclear (ABEN)</p> <p>Brazilian Nuclear Energy Association (ABEN)</p>  <p>www.aben.com.br</p>	<p>ABEN's website claims to gather experts and researchers of Brazil's nuclear sector with an aim to disseminate information about the peaceful applications of nuclear energy in various areas such as electrical energy, medicine, agriculture, and the environment.</p> <p>The website cites ABEN's goal as promoting "integration between the nuclear community and Brazilian society."</p>	<p>The ABEN site, only in Portuguese, has an objective, up-to-date, and well researched news and events section. A forum can be joined with a membership.</p> <p>This site has no site map, but has a search engine and an excellent "Links" section to other national and international nuclear sites.</p>

^d For more details on the INAC, see the 11 February OSC Report, **Brazil to Host International Nuclear Atlantic Conference** (LAP20090211465001).


This OSC product is based exclusively on the content and behavior of selected media and has not been coordinated with other US Government components.

Source	Source Information	Source Assessment
	<p>ABEN regularly announces hosted events on its site; one prominent upcoming event is the International Nuclear Atlantic Conference (INAC), marked for 27 September-2 October 2009.^d</p> <p>The online versions of two ABEN publications, <i>Fonte Nuclear</i> and <i>Revista Brasil Nuclear</i>, are available on the site.</p>	
<p> REVISTA BRASIL NUCLEAR</p> <p><i>Brazil Nuclear Magazine</i></p>  <p>www.aben.com.br</p>	<p>Accessed through the ABEN website, <i>Revista Brasil Nuclear</i> is dedicated to the layman and intended to make information on nuclear policy and activities more transparent and accessible to the widest possible audience. It uses exclusive interviews, reporting, commentary, and analysis to trace a "broad spectrum" of scientific and technical achievements.</p> <p>Established in 1994, this publication appears to come out semiannually and is mailed free of charge to 12,000 subscribers.</p>	<p>Issues going back to 2005 provide details on Brazilian nuclear plans, installations, activities, and facilities.</p>

Source	Source Information	Source Assessment
 <p>FONTE NUCLEAR Nuclear Source www.aben.com.br</p>	<p><i>Fonte Nuclear</i> is a weekly news bulletin that claims to be dedicated to journalists and professors focused on nuclear issues.</p> <p>The bulletin is also available by e-mail.</p>	<p>Brief and timely Portuguese-language articles focus on trends in Brazil and abroad.</p>
<p>Associacao Brasileira para o Desenvolvimento de Atividades Nucleares (ABDAN)</p> <p>The Brazilian Association for the Development of Nuclear Activities (ABDAN)</p> <p>www.abdan.org.br^e</p>	<p>The website describes this Rio de Janeiro-based organization - - founded in 1987 -- as promoting and disseminating nuclear technology development and its acceptance as an energy source. The website claims ABDAN represents 20 of the "most important" companies engaged in nuclear activities. The following are listed with links to their websites:</p> <p>Bardella, Norberto Odebretch Construction, Siemens, Confab Industrial, Andrade Gutierrez Construction, Framatome ANP, Sulzer Brasil, Brazilian Engineering Company (EBE), NUCLEP, Eletronuclear, INB, Engevix Engineering, Furnas Centrais Eletricas, Leme Engineering, Jaragua Industrial Equipment, Iberdrola Consulting and Services of Brazil, Camargo Correa Construction and Trade, UTC Engineering, and MEGATRANZ ALE Heavylift and Transport.</p>	<p>Sections of this Portuguese-language site provide a very basic outline on the organization and its activities. There is no site map. One section announces planned events, such as workshops and courses.</p>

^e For a more detailed assessment of this website, see the 14 July OSC Report, **Web Assessment of Brazilian Association for the Development of Nuclear Activities (LAP20090714038001)**.

This OSC product is based exclusively on the content and behavior of selected media and has not been coordinated with other US Government components.

Source	Source Information	Source Assessment
<p><i>Atividades Nucleares</i> Nuclear Activities</p>  <p>www.atividadesnucleares.com.br</p>	<p><i>Atividades Nucleares</i> is a Portuguese-language website affiliated with ABDAN. The site offers the association's monthly newsletter, which is available free of charge by subscription in hard copy and online in PDF format. It is produced by Migre Communications and edited by Herval Faria.</p> <p>The website's home page, has updated news "channels" entitled:</p> <ul style="list-style-type: none"> • Nuclear weapons • Fuel cycle • Nuclear energy • Nuclear medicine • Environment • Technology 	<p>The site has search capability, and the site and the newsletter each contain substantial news updates, reports, as well as announcements of events, workshops, and conferences on domestic and international nuclear activities.</p>
<p>The Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC)</p> <p>www.abacc.org</p>	<p>The home page describes this agency as a means to monitor compliance with a 1991 signed agreement between Brazil and Argentina to mutually verify the peaceful use of nuclear materials "that could be used either directly or indirectly to manufacture weapons of mass destruction." ABACC's virtual journal -- apparently published biannually -- provides information on safeguarding activities, technical texts, and opinions by experts in the nuclear sector.</p>	<p>A trilingual site -- available in Portuguese, Spanish, and English -- that features an updated news section and a reliable menu with publications, speeches, agreements, and treaties. A section entitled "ABACC and the IAEA" can also be accessed.</p>