NEXT GENERATION SAFEGUARDS INITIATIVE (NGSI)

OPPORTUNITIES FOR STUDENTS AND YOUNG PROFESSIONALS INTERESTED IN SAFEGUARDS/NONPROLIFERATION

The **Next Generation Safeguards Initiative** (NGSI) was launched by the National Nuclear Security Administration (NNSA) in FY 2008 to develop the policies, concepts, technologies, expertise, and infrastructure necessary to strengthen and sustain the international safeguards system as it evolves to meet new challenges over the next 25 years.

NGSI's **Human Capital Development subprogram**¹ aims to revitalize and expand the international safeguards human capital base in the United States by attracting, educating, training, and retaining a new generation of safeguards professionals.

I. NGSI Sponsored Programs



NGSI Paid Internships at the National Laboratories

<u>Description</u>: paid internship working on safeguards projects at a DOE National Laboratory; paired with a team and/or mentor; possibility to attend (and present work at) the Institute of Nuclear Materials Management (INMM) annual conference

<u>Timeline</u>: most positions are approximately 2 to 3 months in the summer, with some possibilities for fall or spring internships; application deadlines vary but most are open from fall to early spring

<u>Who qualifies</u>: undergraduate and graduate students (masters or PhD), or recent graduates; technical- or policy-oriented applicants welcome; most positions are technical (engineering, sciences); not limited to U.S. citizens

Argonne National Laboratory (ANL) - Argonne, IL:

contact Lenka Kollar

Brookhaven National Laboratory (BNL) – Upton, NY:

contact Susan Pepper

Idaho National Laboratory (INL) - Idaho Falls, ID:

https://inlportal.inl.gov/portal/server.pt/community/education/679/internships/7559 (Sean Morrell)

Los Alamos National Laboratory (LANL) - Los Alamos, NM:

contact Brian Boyer

Lawrence Livermore National Laboratory (LLNL) – Livermore, CA:

http://cns.miis.edu/edu/internship nucsafe.htm (Justin Reed)

Oak Ridge National Laboratory (ORNL) - Oak Ridge, TN:

http://www.ornl.gov/sci/nsed/outreach/internship_nesls.shtml (Kim Gilligan)

Pacific Northwest National Laboratory (PNNL) - Richland, WA:

http://www.pnl.gov/nsd/nsip/ (Roberta Burbank)

Sandia National Laboratory (SNL) – Albuquerque, NM:

contact Dianna Blair

Savannah River National Laboratory (SRNL) - Aiken, SC:

http://www.savannahrivernuclearsolutions.com/careers/workforce04.htm (Rick Poland)

NGSI Short Courses

MIIS/LLNL: International Safeguards Policy and Information Analysis

http://cns.miis.edu/edu/course nucsafe.htm

Timeline: 1 week in May or June

Who qualifies: university students at any level or young professionals; any citizenship²

BNL: Nuclear Nonproliferation, Safeguards, and Security in the 21st century

http://www.bnl.gov/education/nnss/default.asp

Timeline: 3 weeks in June/July

Who qualifies: university students at any level or young professionals; any citizenship³

UCSD-IGCC: Public Policy and Nuclear Threats - Nuclear Boot Camp

http://igcc.ucsd.edu/PPNT.php Timeline: 3 weeks in July/August

Who qualifies: PhD candidates, post-docs, or young professionals; any citizenship⁴

LANL, ORNL, and PNNL also hold courses for their interns as part of the NGSI internship.

LLNL broadcasts a live **video-teleconference safeguards lecture series** from July-August each year. For more information on how to connect, please contact Justin Reed.

INL holds an annual two-week **International Safeguards Course for Future Inspectors** (accredited) for U.S. citizens. For more information, please contact Mark Schanfein.

NGSI Nuclear Nonproliferation and International Safeguards (NNIS) Fellowship

http://scuref.org/nnis-overview

<u>Description:</u> graduate school fellowship (full tuition plus stipend) to support highly talented students focusing on nonproliferation or safeguards applications in their studies and research; fellowship includes a practicum at a DOE National Laboratory

<u>Timeline</u>: application due in early March each year; fellowship funds up to 4 years of graduate study <u>Who qualifies</u>: U.S. citizens who are nuclear engineering or physical science masters or PhD candidates at eligible universities

NGSI Post-Masters or Post-Doctoral positions at U.S. National Laboratories

Contact Melissa Scholz for Lab POC information

Description: full-time paid positions at DOE National Laboratories working on safeguards projects

Timeline: rolling

Who qualifies: primarily post-doctoral researchers in technical disciplines, but post-masters positions are also available;

currently participating Labs are INL, LANL, LLNL, ORNL, PNNL, SNL, and SRNL

JD Williams Student Paper Award

http://www.inmm.org/Scholarships and Awards.htm

Description: a paper/poster award sponsored by NGSI at the Annual Meeting of the Institute of Nuclear Materials

Management (INMM): \$1000 first prize paper, \$500 second prize paper, and \$1000 first prize poster.

Timeline: abstracts due each year by February; papers due in June; meeting is held in July

<u>Who qualifies</u>: any full-time student at an accredited educational institution who submits an abstract and paper by the required deadlines and attends the INMM annual meeting to present his/her work

II. Non-NGSI programs in the field of nuclear nonproliferation and safeguards

Nonproliferation Graduate Fellowship Program (NGFP)

http://ngfp.pnnl.gov/

<u>Description:</u> one year, full-time paid position as a government contractor in the Office of Defense Nuclear Nonproliferation at NNSA in Washington, DC

<u>Timeline</u>: applications due by October 1 for a start date at the end of June of the following year; fellowship runs from June-June

<u>Who qualifies</u>: Master's or PhD candidates, or graduates with a Master or PhD who have received their diploma within the last year at the time of application; technical- and policy-oriented applicants welcome (most positions are policy-based); benefits include tuition support, a Q clearance, and paid relocation expenses; 20-25 students win this Fellowship each year

IAEA Junior Professional Officer (JPO) program

http://www.bnl.gov/ispo/JPO/jpo.asp

<u>Description:</u> one year, full-time paid position at the International Atomic Energy Agency in Vienna, Austria <u>Timeline</u>: rolling; see website (above) for openings in the Department of Safeguards

Who qualifies: applicants should be U.S. citizens or permanent residents of the United States, between the ages of 18 and 32, and recent graduates of an accredited institution of higher education

World Nuclear University (WNU)

http://www.world-nuclear-university.org/about.aspx?id=17688

<u>Description:</u> a six week leadership development program held annually at the University of Oxford in Christ Church, UK <u>Timeline</u>: applications due in November for the course the following July-August

<u>Who qualifies</u>: qualifications include current employment in the industry (3-4 years relevant work experience in the nuclear industry or government); a master's degree in science, engineering, or business – or reactor operator's license – or equivalent experience; knowledge of nuclear fundamentals; maximum age of 37 (see website for application form)

Project on Nuclear Issues (PONI) Nuclear Scholars Initiative at CSIS

http://csis.org/program/nuclear-scholars-initiative

<u>Description:</u> a program for up-and-comers in the field to add depth and breadth to their understanding of nuclear weapons issues and to publish their original work

<u>Timeline</u>: six-month program (once per month workshops in Washington, DC)

Who qualifies: graduate students and young professions from around the country with a demonstrated interest and/or experience in nuclear issues

See also: PONI's list of nuclear careers

NNSA Future Leaders Program

http://nnsa.energy.gov/futureleaders

<u>Description:</u> Two year entry-level program at the National Nuclear Security Administration (NNSA) for bachelor's or master's degree graduates; program is for all of NNSA and not just the Office of Defense Nuclear Nonproliferation (i.e. some positions are not in nonproliferation).

<u>Timeline</u>: 2 year placement in 2 rotational positions (one in Washington, DC and one at a field site)

<u>Who qualifies</u>: Graduates with a bachelor's and/or master's degree in engineering, science, business, or other disciplines; benefits include a student-loan payback program and federal employee status; about 30 recent graduates are hired as Future Leaders each year

ESARDA Course on Nuclear Safeguards and Nonproliferation

http://esarda2.jrc.it/internal_activities/WC-MC/Web-Courses/

<u>Description:</u> a five day program with 1 hour lectures by experts in the field of nuclear safeguards, visits to five safeguards laboratories, and some classroom exercises. The primary aim is stimulate students' interests in safeguards and complement nuclear engineering studies with nuclear safeguards curriculum. Course is held in Ispra, Italy. <u>Timeline:</u> Courses usually held each March; registration no later than December 31 of the year prior; limited to 45 students.

<u>Who qualifies:</u> open to anyone, in particular nuclear engineering students with a master's degree or currently earning a masters degree, but also students of international relations and law. University students can apply for accommodations free of charge. The course is free and lunches are provided.

Center for Nonproliferation Studies Nonproliferation Internships

http://cns.miis.edu/edu/internship_summer.htm http://cns.miis.edu/edu/internship_dc.htm

<u>Description:</u> internships at the James Martin Center for Nonproliferation Studies (CNS), Monterey Institute of International Studies (MIIS) in California or in Washington, D.C. working on issues related to nonproliferation, arms control, and regional security affairs

<u>Timeline:</u> summer internships in California (February deadline) last 2-4 months between June and September; internships in Washington, DC last 4-5 months in the summer (March 15 deadline), fall (July 15 deadline), and spring (November 15 deadline).

<u>Who qualifies:</u> for California CNS internships, students must have completed at least their sophomore year at an undergraduate institution and, if non-U.S. citizens, have an ability to gain a U.S. work visa. For Washington, D.C. internships, applicants should have an interest and/or background in nuclear weapons, missile nonproliferation, and arms control issues, or in chemical and biological weapons technology and policy.

See also: http://cns.miis.edu/edu/internship_nucsafe.htm under NGSI internships (top of this document) for information on the CNS/MIIS/LLNL internship in nuclear safeguards

Center for Nonproliferation Studies Employment Opportunities

http://cns.miis.edu/jobs/index.htm

<u>Description:</u> employment positions within the James Martin Center for Nonproliferation Studies (CNS) or Vienna Center for Disarmament and Nonproliferation (VCDNP) on issues related to nuclear nonproliferation and/or disarmament; VCDNP internships are also posted here and are unpaid.

Timeline: rolling deadlines

Who qualifies: see website for individual postings

United States Institute for Peace (USIP) course on nuclear nonproliferation and WMDs

http://www.usip.org/education-training/courses/advanced-issues-in-nuclear-nonproliferation

"Non-Proliferation and Weapons of Mass Destruction: Practice and Challenges"

<u>Description:</u> Course topics include: the international nonproliferation regime; the nuclear fuel cycle and its proliferation risks; nuclear terrorism; the proliferation challenges posed by Iran, North Korea, and others; and chemical, biological, and missile proliferation.

<u>Timeline:</u> apply <u>online</u>

Who qualifies: Course participants should have relevant experience in their field

Center for Arms Control and Nonproliferation Internships

http://armscontrolcenter.org/about/internships/

<u>Description:</u> full- and part-time internship opportunities for students of political science, international relations, the sciences, peace studies, or related fields

<u>Timeline:</u> 3-4 month internships in spring (deadline November 1), summer (deadline March 1), and fall (deadline July 1) with a \$500/month stipend

Who qualifies: Prospective candidates should be college juniors or seniors, recent college graduates, or graduate students

Arms Control Association Research Assistant Internship

http://www.armscontrol.org/internships

<u>Description:</u> full-time internships in Washington, D.C. Interns research arms control and security issues for articles and fact sheets; assist in preparing and editing ACA's monthly journal *Arms Control Today*; monitor activity in the press and on Capitol Hill; and support the analysts in a variety of administrative tasks

<u>Timeline:</u> 3-5 month internships in spring (deadline December 1), summer (deadline March 15), and fall (deadline July 1) with a daily stipend for lunch and commuting expenses

Who qualifies: undergraduates, graduate students, or individuals no longer in school qualify for internship positions

Herbert Scoville Jr. Peace Fellowship

http://scoville.org/index.html

<u>Description:</u> six- to nine-month fellowship program in Washington D.C. for recent college graduates; supported by a stipend of \$2,400/month and health insurance. Fellows serve as full-time junior staff members at participating nonprofit, public-interest organizations addressing peace and security issues.

<u>Timeline:</u> October 2012 deadline for Spring 2013 Fellowship; January 2013 deadline for Fall 2013 Fellowship Who qualifies: Candidates are required to have completed a college degree by the time the fellowship begins. Preference is given to U.S. citizens.

United Nations Institute for Disarmament Research (UNIDIR)

http://www.unidir.org/html/en/opportunities.html#interns

<u>Description:</u> full-time unpaid internships to assist with research and administration at UNIDIR in Geneva, Switzerland <u>Timeline:</u> Internships last approximately two to three months with the possibility of extension; rolling applications. <u>Who qualifies:</u> minimum requirement of ongoing undergraduate studies; fluency in English or French

Institute for Science and International Security Internship

http://isis-online.org/about/internships/

<u>Description:</u> full-time internships with a monthly stipend in Washington, D.C. Interns attend and report on Congressional meetings, hearings and similar events; draft research memos and fact sheets; help set up ISIS workshops and conferences; compile press clips; update the ISIS mailing list; assist in the management of ISIS's web site and help to distribute ISIS publications.

<u>Timeline:</u> spring and fall internships, check website for upcoming deadlines

<u>Who qualifies:</u> Qualified applicants should have some background in international relations and/or national security. Prior intern or job experience not required. Applicants should have a working knowledge of Windows-based software, including Microsoft Word, Access, and Excel. HTML, CSS and PHP coding and website management experience a plus. Non-U.S. citizens welcome.

Stanton Nuclear Security Fellowship Program

http://www.cfr.org/thinktank/fellowships/StantonFellowship.html?co=C033802

<u>Description:</u> scholars studying nuclear security issues spend a period of twelve months at the Council on Foreign Relations' (CFR) offices in New York or Washington, D.C., conducting policy-relevant research. Stipends between \$50,000 and \$100,000 awarded (see below) but there is no health insurance benefit.

Timeline: December deadline for a one-year fellowship beginning the following calendar year

Who qualifies: open to U.S. citizens and permanent residents who are eligible to work in the United States. Candidates must be junior (non-tenured) faculty, post-doctoral fellows, or pre-doctoral candidates from any discipline who are working on a nuclear security related issue. The program awards a stipend of \$100,000 for junior (non-tenured) faculty; \$75,000 for post-doctoral; and \$50,000 for pre-doctoral fellows.

Wilson Center Nuclear Boot Camp

http://www.wilsoncenter.org/2012NuclearBootCamp

<u>Description:</u> NPIHP's summer 2012 Nuclear Boot Camp will be hosted by the University of Roma Tre and the Machiavelli Center for Cold War Studies (CIMA) at a former ACE HIGH NATO communications relay site in the village of Allumiere near Rome, Italy for ten days in the last half of June 2012. Participants receive full tuition and round-trip airfare to Rome as well as accommodations and meals during the boot camp.

Timeline: applications due in February of each year for that summer's course.

<u>Who qualifies:</u> Students enrolled in or who have been accepted to a Ph.D. program in international relations, history, political science and related fields, especially students who are working towards or considering a thesis on nuclear matters OR applicants who have completed their M.A. degree and are considering a Ph.D. in any of the above fields.

Updated July 2012



¹ For more information on NGSI or the NGSI Human Capital Development (HCD) subprogram, contact NGSI HCD Coordinator <u>Melissa Scholz</u> or NGSI HCD Team Leader <u>Dunbar Lockwood</u>.

² With the exception of citizens from countries on the U.S. State Department's list of state sponsors of terrorism.

³ ibid

⁴ Ibid