

General information

Jefferson Lab is a world-class research institution that attracts resident and visiting physicists and other scientists from around the world. Approximately 800 full-time physicists, engineers, technicians, and support staff work at Jefferson Lab and more than 1,350 academic and industrial researchers, from across the United States and approximately 30 countries and 187 institutions, participate in scientific collaborations. Each year more than one-third of all Nuclear Physics PhDs awarded in the United States are based on research conducted at Jefferson Lab. Currently the laboratory is in a long shutdown period upgrading the electron energy of the main accelerator from 6 GeV (billion electron volts) to 12 GeV, for future nuclear physics research. The laboratory is located in Newport News, Virginia – USA.

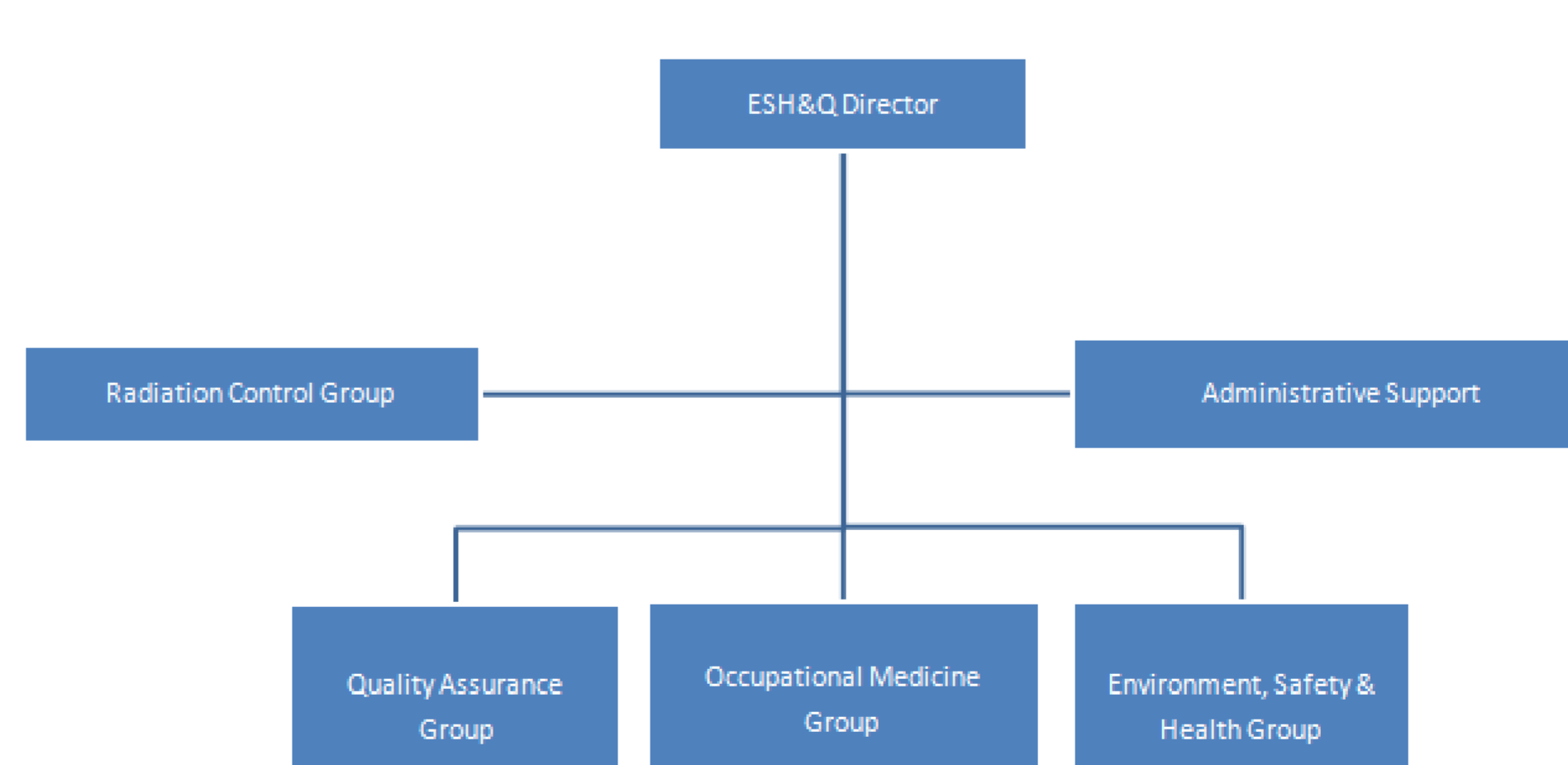
Facts and figures

2012 manpower (posts filled on 30/09/2012)				
	Scientists, Engineers, Senior Administrators	Technicians and Administrative Staff	PhD Students	Total
Staff on regular positions				
Accelerator and Source	110	100		210
Beam lines, instruments and experiments	120	124	25	269
General technical services	127	35		162
Directorate, administration and central services	50	89		139
Subtotal	407	348	25	780
Other positions				
Short term contracts				
Apprentices				
European Union grants				
Temporary Workers		8		8
Total	407	356	25	788

2012 BUDGET		
	SK	K Euro
PERSONNEL		
JLAB staff	84,871	65 232
External temporary staff	3,187	2 450
other personnel costs		
RECURRENT		
Consumables	21,160	16 264
Services	7,231	5 558
other recurrent costs	12,740	9 792
CAPITAL		
Buildings, Infrastructure	26,584	20 432
Laboratories and workshops	3,085	2 371
Accelerator and Source	9,891	7 602
Beam lines, Experiments	8,812	6 773
Computing		
Infrastructure	1,328	1 021
Other capital costs	3,491	2 683
Total	182,380	140 177

ESH&Q

The mission of the Environment safety Health & Quality division is to assist J-Lab staff, its users, and contractors to understand and meet responsibilities to perform work safely and in an environmentally sound manner in an atmosphere of continuous improvement. The division will meet or exceed the expectations of its external customers as well. The director, ESH&Q reports directly to the Laboratory Director on matters of the environment, health and safety, which includes radiation protection. The division manpower includes four scientists, a medical director, 17 engineers, 13 technicians, and six related to administrative support.



Safety hazards

Although ionizing radiation represents the most important, specific safety hazard at Jefferson Lab, due in part to the operation of the electron accelerator, other hazards encountered are comparable to those typically found in an industrial setting; non ionizing radiation (lasers, magnetic fields, ...), electrical hazards, cryogenics, pressure and vacuum systems, chemical hazards, working from heights and or confined spaces ... Numerous contractors work on site, either service long term facilities maintenance type work or the numerous project specific transient construction workers for the machine upgrade, and the ongoing scientific user community working throughout the experimental halls, tunnel and or staging buildings brings by itself safety related challenges, plus the laboratory staff collectively working during this long shutdown, with some staff being matrixed to other groups also provides a tremendous variety of ES&H type challenges, giving ESH&Q Division support opportunities for excellence to meet the overarching ESH&Q mission of the laboratory.

Projects

The full scope of the 12 GeV CEBAF Upgrade project includes upgrading the electron energy of the main accelerator from 6 GeV (billion electron volts) to 12 GeV, constructing a new experimental area (Hall D), and enhancing the capabilities in the existing experimental halls to support the most compelling nuclear physics research. The Upgrade will enable a powerful new experimental program that will advance our understanding of the quark/gluon structure of hadronic matter, the nature of Quantum Chromodynamics, and the properties of a new extended standard model of particle interactions.

History

- 1984** Initial United States federal funding for the project .
- 1987** Construction began on the Continuous Electron Beam Accelerator Facility (CEBAF)
- 1995** Physics experiments started at CEBAF
- 1996** Name changed from CEBAF to the Thomas Jefferson National Accelerator Facility (Jefferson Lab)
- 1997** CEBAF full-design energy – 4 GeV (billion electron volts) – delivered to all three experimental halls
- 2000** CEBAF ~ 6 GeV beam delivered to experimental halls, exceeding machine design by 50 percent
- 2003** Groundbreaking data published on the shape of the proton
- 2004** Department of Energy approved “mission need” for Jefferson Lab 12 GeV Upgrade
- 2006** Upgraded Free-Electron Laser surpassed 10kW design to achieve 14.2 kW in the infrared
- 2008** 12 GeV Upgrade Project received US Department of Energy approval to begin construction
- 2012** Approved 6GeV experiments completed

Jefferson Lab Experiments 1995 – 2012

Topic	Hall A	Hall B	Hall C	Total
Nucleon and Meson Form Factors and Sum Rules	13	7	15	35
Few Body Physics	17	6	5	28
Properties of Nuclei	12	11	11	34
N* and Meson Properties	13	38	10	61
Strange Quarks and Parity Violation	7	16	4	27
Total # of Approved Experiments	62	78	45	185