



**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)  
AND  
THE NORTH SHORE LONG ISLAND JEWISH HEALTH SYSTEM (NSLIJHS)**

**I. Purpose**

The purpose of this Memorandum of Understanding (MOU) is to document the partnership between the United States Environmental Protection Agency (EPA) and the North Shore Long Island Jewish Health System, Inc. on behalf of North Shore University Hospital, Long Island Jewish Medical Center, Franklin Hospital, Forest Hills Hospital, Glen Cove Hospital, Huntington Hospital, Plainview Hospital, Cohen Children's Medical Center, Southside Hospital, Staten Island University Hospital, Syosset Hospital and Zucker Hillside Hospital (together referred to as "NSLIJHS").

Under this MOU, NSLIJHS will participate in the following voluntary EPA environmental stewardship programs.

- Energy Conservation and the EnergyStar Building & Plant Partnership Program
- Solid Waste Recycling, Re-Use of Industrial Materials and the WasteWise Partnership Program
- Coal Combustion Products Partnership
- Combined Heat & Power Partnership
- National Clean Diesel Campaign & Clean Construction USA
- Leadership in Energy and Environmental Design (LEED) Certifications
- Alternative Energy Study
- Water Conservation and WaterSense Products

The text that follows briefly describes the voluntary EPA environmental stewardship programs as they apply to NSLIJHS. The text also highlights some important sustainability initiatives NSLIJHS has already begun, or is currently planning.

**II. Programs**

**A. Energy Conservation and the EnergyStar Building & Plant Partnership Program**

NSLIJHS will join the EPA EnergyStar Partnership Program. We will audit existing energy use and develop an energy reduction policy and strive for continuous improvement and to meet or exceed the goal of 10% energy reduction under the EnergyStar Program.

Major components of NSLIJHS include:

- Recently, NSLIJHS completed a \$15 million conservation program that reduces system-wide energy and water consumption.
- Further reductions in the NSLIJHS carbon footprint will be achieved with the initiation of a \$40 million energy conservation program. This effort will be validated using the International Performance Measurement and Verification Protocol.
- At Glen Cove Hospital, NSLIJHS conserves energy by using well water to enhance chilled water operations.
- NSLIJHS will use Building Management Systems to measure and verify energy use.
- NSLIJHS will employ day-lighting and light sensors in building design to reduce light pollution and energy use.
- NSLIJHS uses mostly low VOC materials in its building interior designs.
- NSLIJHS will employ building commissioning to insure that all building systems operate in an energy-efficient manner.
- Whenever practical, NSLIJHS will minimize the addition of parking spots and encourage the use of car-pooling and public transportation.

#### **B. EPA GreenScapes Program and the Re-use of Industrial Materials**

Under this MOU, NSLIJHS will consult with EPA's GreenScapes program to reduce the need to replace landscaping materials and the reusing of landscape materials where possible, recycle organic materials and make decisions to specify and purchase products that are environmentally preferable.

- NSLIJHS will utilize synthetic Gypsum whenever possible and will source material for construction projects from within 500 miles of the project site when feasible.
- NSLIJHS will source products that include as much recycled content as is possible, targeting 20 – 30%.
- NSLIJHS will investigate the feasibility of installing rainwater collection systems to help minimize the use of potable water for irrigation and cooling tower make-up water.
- NSLIJHS will utilize native and adaptive plantings whenever possible and will minimize the use of potable water irrigation systems.
- NSLIJHS will investigate the use of pervious pavement.
- NSLIJHS will investigate the potential for installing green roofs.
- NSLIJHS will install high albedo reflective roofing materials on non-green roof installations.

#### **C. Solid Waste Recycling and the WasteWise Partnership Program**

NSLIJHS will become an EPA WasteWise Partner and perform a waste audit that will be used to enhance its current waste reduction and recycling program. Goals for waste recycling will be determined and a feasibility study on the composting of food waste will be performed. Additional green and sustainable activities will include:

- NSLIJHS will manage construction waste by diverting as much construction debris from the landfill as possible.
- NSLIJHS recycles batteries, fluorescent lighting, computer equipment, paper, plastic, and aluminum cans and is exploring additional opportunities for waste minimization and recycling.
- NSLIJHS will consult the EPA Environmentally Preferably Purchasing List when selecting the purchase of cleaning products.

In summary, as an EPA WasteWise Partner and Endorser, NSLIJHS will record and improve waste reduction, recycling and re-buy practices and encourage other hospitals and health systems to join as partners.

#### **D. Coal Combustion Products Partnership (C2P2)**

Under the MOU, NSLIJHS will substitute fly ash for portland cement whenever structurally allowable on future construction projects. NSLIJHS will apply for partnership in the Coal Combustion Products Partnership Program (C2P2) with the goal to increase coal combustion product usage to 50% by 2011.

#### **E. Combined Heat and Power (CHP) Partnership**

NSLIJHS and EPA both recognize CHP potential benefits for improving energy infrastructure and economic operations and, most importantly, lowering the impact on the environment while meeting the demands for energy.

At Long Island Jewish Medical Center, NSLIJHS uses a 2.8 MW Combined Heat and Power Plant to supply electrical energy to the campus boiler/chiller plant and supplementary heat for steam and hot water requirements. The use of the plant will continue and opportunities to improve the plant's efficiency will be investigated. Bringing CHP to other hospitals will also be explored.

#### **F. National Clean Diesel Campaign & Clean Construction USA**

Under this MOU, NSLIJHS will join EPA's Clean Construction USA Program to cooperatively promote and implement measures to effectively reduce emissions from vehicles and other internal combustion engines used in construction and operation of its facilities, with a focus on diesel engine emission reductions. These activities will lead to a measurable decrease in diesel emissions through the following strategies:

- NSLIJHS will work with our contractors to ensure that emission-reduction technologies, such as diesel particulate filters (DPF) and diesel oxidation catalysts (DOC) are utilized on our projects.
- NSLIJHS will investigate the use of electric crane systems to reduce on-site emissions.
- NSLIJHS will investigate and incorporate innovative design features to enhance the maintainability of installed systems to ensure proper operation throughout the equipment life cycle.

## **G. Projects Pursuing Leadership in Energy and Environmental Design (LEED) Certifications**

NSLIJHS plans to certify major construction projects under the LEED rating system. Team members from NSLIJHS have worked with the USGBC-Long Island to create the Healthcare committee for the chapter. Currently, the chairman of the committee is on the NSLIJHS team. Accordingly, the following construction projects have been registered with the USGBC:

- Katz Women's Hospital at North Shore University Hospital
- Surgical Pavilion at North Shore University Hospital
- Zucker Hillside Hospital Inpatient Pavilion
- Schneider Children's Hospital
- Monter Cancer Center Phase II
- Center for Advanced Medicine Radiation Oncology
- LIJMC WH Floor 8&9 Fit Out
- Health Info Team-NSLIJ at Citifield

NSLIJHS will work with the USGBC-LI chapter to provide educational opportunities for the local professional community and the general public. NSLIJHS will provide sustainable and educational information via the Internet, inclusive of but not limited to video documentation of LEED certified projects developed by the Health System. NSLIJHS will display educational information regarding Green construction and practices via digital signage displays located in public areas of the Health System.

## **H. Alternative Energy Feasibility Study**

NSLIJHS is investigating the application of photovoltaic arrays and will research the use of other renewable energy such as wind power, solar thermal, and fuel cells.

## **I. Water Conservation and the Use of WaterSense Products**

Both NSLIJHS and EPA recognize the importance of using water efficiently. Water-efficient behaviors and the use of quality products that minimize water use can result in: less water drawn from reservoirs; potential improvements to water quality; reduced energy use and CO<sub>2</sub> emissions related to water treatment and pumping; reduced wastewater treatment; and reduced water utility costs. A NSLIJHS Project Manager serves on the USGBC Water Efficiency Technical Advisory Group.

Under this MOU, NSLIJHS will utilize WaterSense Products, where appropriate and will provide EPA with an estimate on annual water conservation data. NSLIJHS will conserve potable water through the use of efficient fixtures whenever and wherever practical. Current new construction projects are being designed utilizing dual flush toilets, low flow showers and ultra low flow lavatories.

EPA commits to provide WaterSense program news and product information and provide support to NSLIJHS requests for information on WaterSense.

## STATUS REPORTING

In addition to the reporting items associated with EPA Partnership Programs, NSLIJHS will submit an MOU status report to EPA twice per year starting six months after the official signing of the MOU. The report will include an update on the various activities identified in this MOU. EPA will use this data to determine and quantify the environmental benefits associated with NSLIJHS “green” activities.

## TERMS AND CONDITIONS

This MOU is not a contractual or a financial obligation instrument. Nothing in this MOU shall obligate EPA or NSLIJHS to expend appropriations or to enter into any contract or other obligations or be cited as the basis for the promise or transfer of funds. Collaboration under this MOU shall be in accordance with applicable statutes and regulations.

This MOU does not restrict EPA or NSLIJHS from participating in similar activities or arrangements with other entities or Federal agencies (domestic or foreign).

Either party may unilaterally withdraw at any time from this MOU by issuing a signed written notice to that effect to the other party. By mutual agreement, which may be either formal or informal, the parties may modify the list of intended activities set forth in Paragraph III, above, and/or determine the practical manner by which the goals, purposes and activities of this MOU will be accomplished. Modification to other written parts of this MOU must be made in writing and signed by both parties, and their designees.

Nothing in this MOU shall be construed to authorize or permit any violation of any Federal, State or local law, including, but not limited to, any environmental law administered and/or enforced by EPA.

Access to all documents generated pursuant to the activities set forth in this MOU that constitute agency records for purposes of the Freedom of Information Act (“FOIA”), 5 U.C.S. 552 shall be governed by the provisions of the FOIA.

NSLIJHS agrees that it does not expect, nor will they ever seek to compel from EPA in any judicial forum, the payment of money, services or other thing of value from the other party based upon the terms of this MOU. The foregoing provision does not in any way affect any legal rights accruing to NSLIJHS by virtue of any other law, contract and/or assistance agreement.

NSLIJHS understands and acknowledges that, as an institution of the Federal Government, EPA has a duty to refrain from providing any commercial entity an exclusive privilege without receiving payment therefore and, as a consequence, that EPA's relationship with NSLIJHS in no way affects, alters or otherwise constrains EPA's right to provide similar (or identical) services to, or establish similar (or identical) relationships with, any other entity.

NSLIJHS understands that EPA's participation in this MOU does not constitute an endorsement, express or implied, of (a) any policy advocated by NSLIJHS or (b) any goods or services purchased, offered or sold by NSLIJHS.

NSLIJHS shall maintain full right, title and interest in any intellectual property right, including a copyright, in any work product developed solely by NSLIJHS in furtherance of the objectives of this MOU. Any intellectual property developed collaboratively by the Parties will be governed by the Federal Copyright Statute at Title 17 of the United States Code or by the Federal Patent Statute at Title 35 of the United States Code.

The EPA enters into this MOU under the authority of Section 103 of the Clean Air Act, 42 U.S.C. §7403, Section 104 of the Clean Water Act, 33 U.S.C. §1254, and Section 8001 of the Solid Waste Disposal Act, 42 U.S.C. §6981, Section 6604 of the Pollution Prevention Act, and Section 324A of the Energy Policy and Conservation Act, which provide EPA with authority to undertake cooperative efforts with other organizations to promote the coordination and acceleration of research, studies, training, and other efforts to prevent, reduce and eliminate pollution.

This MOU does not create any right or benefit, substantive or procedural, enforceable by law or equity against NSLIJHS or EPA, their officers or employees, or any other person. This MOU does not direct or apply to any person outside of EPA and NSLIJHS.

**V. Effective Date and Administration**

This MOU will become effective upon signature by the Regional Administrator of EPA Region 2 and the Chief Operating Officer of NSLIJHS or their designees. It may be modified or amended by written agreement between both parties. This MOU will terminate at the end of five (5) years from the date of signature unless revised or extended at that time by written agreement of the parties. It may be terminated at any time by either party upon the issuance of a written notice to the other party. The Parties will review annually the provisions of this MOU and its implementation.

Signed:

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Judith Enck  
Regional Administrator  
U.S. EPA Region 2

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Michael Dowling  
Chief Executive Officer  
North Shore LIJ Health System

Date: \_\_\_\_\_

Date: \_\_\_\_\_