



GREEN BUSINESS HANDBOOK

SECOND EDITION



From the Commissioner...

What if you could both save money and keep New Hampshire the wonderful place we know and love? What's not to like about that?

In any business, whether it's tourism, education, manufacturing, or health care, reducing your environmental impact saves money and enhances the environment we all share.

I am pleased to present this handbook, significantly updated from the award-winning 2008 original, and intended to help all businesses become "greener." The included checklists range from basic to advanced actions – pick the ones that apply to your business. The checklists will help reduce your use of energy and water, and conserve raw materials. This workbook will help you think of your business in a new way, and to view environmental issues as an economic plus, not just a regulatory burden. Topics to help keep you on the right side of the law are also included. Links and website references are provided to guide you to further information if needed.

It's worth noting that in 1996, the New Hampshire General Court directed the Department of Environmental Services to give pollution prevention the highest priority as our strategy to maintain and enhance the state's environment and economic well being (RSA 21-O:15).

Pollution prevention, or P2, means reducing or eliminating waste at the source by modifying production processes, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream. Prevention trumps recycling, treatment and disposal.

This handbook is about taking a proactive approach to managing environmental impacts. I hope you find it useful.

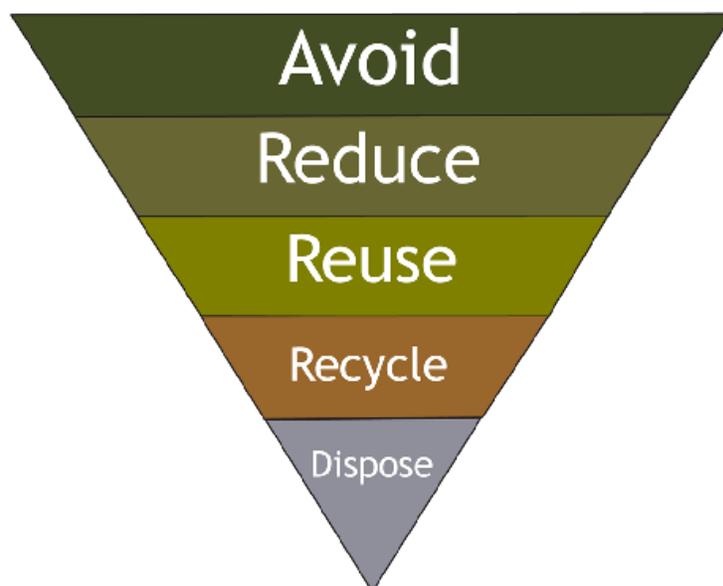


Thomas S. Burack
Commissioner
NH Department of Environmental Services

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Pollution Prevention Hierarchy



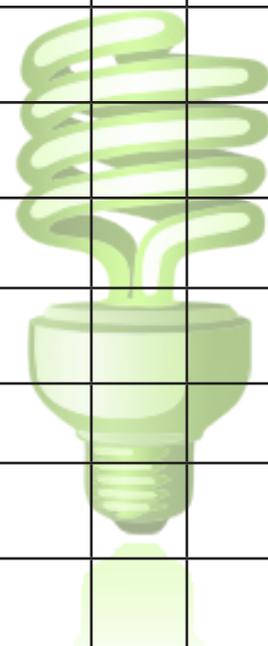
Energy Conservation

Reducing or eliminating energy use saves money and reduces dependence on foreign oil

Basic

Yes No N/A

Monitor electricity usage and set a goal for percent reduction annually			
Perform regular maintenance on HVAC system (routine filter changes, check for leaks, check for obstructions, etc.)			
Assess lighting needs and use less fixtures/lamps where possible			
Contact your utility company to schedule an energy audit			
Keep light bulbs clean. Dirt can absorb as much as 50 percent of the light			
Retrofit incandescent bulbs with LED or compact fluorescent lamps (CFLs)			
Upgrade T-12 fluorescent lamps to T-8 or T-5 lamps with electronic ballasts			
Install programmable thermostats			
Install occupancy sensors to control lights, AC, heat, etc			
Institute a policy that all lighting and electronic devices are turned off nights, weekends and in non-occupied areas			
Choose "Energy Star" certified equipment when purchasing or leasing new (or replacing old) equipment			
Set water heater temperatures between 120°F and 140°F			
Encourage the use of stairs rather than elevators			
Install LED exit signs in place of older exit signs			
Set computers' power management settings to send monitors to "sleep" mode in as short a time as practical			
Use manual doors rather than automatic doors			
Drain and flush hot water tanks every six months (Scale build up on the elements can reduce efficiency)			
Tune-up and maintain boiler and engines to reduce fuel use and improve efficiency			



Energy Conservation - continued

Advanced

Yes No N/A

Select renewable energy sources to reduce greenhouse gas impact			
Relocate thermostats so that they are not exposed to excessive heat or cold			
Adjust the timing for outside lighting for seasonal changes			
Install under-counter booster heaters for bathroom and lunchroom sinks			
Use deciduous trees and shrubs around buildings to provide shade in summer and allow sun exposure during winter			
Use window treatments to block sun in summer and retain heat in winter			
Use task lighting to reduce overhead lighting needs			
Increase building insulation where possible and when older windows need to be replaced, replace them with energy efficient ones			
Use light meter to check lighting levels; reduce lighting in "overlit" areas			

Resources

[NH Office of Energy and Planning](#)
[NHSaves Energy Solutions for NH](#)

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Transportation & Travel

Don't forget to include vehicles in your conservation plan

Basic

Yes No N/A

Implement a vehicle "no idling" or "reduced idling" policy. Use visual reminders (signage) at loading docks and other areas where vehicles stop			
Educate drivers about fuel economy practices (speed, tire inflation, use of AC, route planning, etc.) http://www.fueleconomy.gov/feg/drive.shtml			
Encourage business travelers to carpool and consolidate trips			
Use teleconferencing whenever possible			
Monitor vehicle fuel usage and set annual reduction goals			

Transportation & Travel - continued

Advanced

Yes No N/A

	Yes	No	N/A
Set up a ride-sharing bulletin board to allow potential car poolers to make contact			
Let employees know about carpool/vanpool/rideshare services. If you are a large employer, consider establishing a van pool			
Provide an incentive for employees to car pool or use hybrid or alternative fuel vehicles (e.g., priority parking)			
Provide flexible work hours to reduce peak traffic volumes			
Provide showers and changing facilities for employees who walk or bicycle to work, and provide a safe place to park bicycles			
Select the most energy efficient vehicle available when purchasing or leasing new vehicles or when renting vehicles on business trips			
If you have a fleet of cars, assign them based on distance traveled, assigning the most fuel efficient vehicles for the longest trips			
Consider alternative fuel vehicles when purchasing or leasing for company fleet (compressed natural gas, propane, electric, biodiesel)			
Evaluate opportunities to minimize transportation impacts (rail or mixed transportation, full truckloads, trip planning software, etc.)			
Choose green hotels when traveling (when searching for hotels online, look for sites that offer green lodging options)			
Become a Granite State Clean Cities stakeholder			
Become an EPA Smartway partner			

Resources

[Vehicle Fuel Economy Information](#)

[Granite State Clean Cities Coalition](#)

[EPA Smartway](#)

[NH Rideshare](#)

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Waste Reduction

Avoidance is the quickest way to waste reduction

Basic

Yes No N/A

Perform a solid waste assessment at your facility (identify types and volume of waste)			
Set a percentage goal for the diversion or reduction of the waste stream			
Use and transmit documents electronically instead of in paper copy			
Use double-sided printers and copy machines; set default to double-sided			
Replace memos with emails; post memos to bulletin boards (electronic if possible) instead of distributing			
Use electronic billing			
Use email instead of faxes			
Set smaller font sizes and margins when printing is necessary			
Eliminate incoming and outgoing bulk mailings			
Minimize marketing materials to reduce paper content; eliminate envelopes			

Advanced

Yes No N/A

Donate used electronics and furniture			
Eliminate the use of polystyrene containers - switch to a recyclable product			
Install energy efficient air dryers in bathrooms to eliminate paper towels			
Print marketing materials on recycled paper and request low VOC ink			
Provide reusable mugs, silverware, etc., in lunch rooms			
Re-use packaging material			
Find markets for wastes, making it a product, not a waste			

Reuse/Recycle

Reuse and recycling play important roles in keeping materials out of landfills

Basic

Yes No N/A

Recycle all recycleable materials (newspaper, office paper, beverage containers, cardboard)			
Reuse office supplies like tape dispensers, binders, folders, letter trays. Facilitate this by establishing an area for used items like a closet or cabinet			
Provide recycling containers and have them located next to every trash receptacle at your facility			
Recycle e-waste (CDs, DVDs, toner cartridges, electronics) GreenDisk			
Reuse or recycle pallets			
Use rechargeable batteries; recycle them when discharged Call to Recycle			
Encourage the purchase of reusable bags; reuse disposable bags			

Advanced

Yes No N/A

Compost food scraps and landscaping debris			
Recycle building materials. Purchase recycled building materials			
Ship products in returnable containers and on reusable pallets			

Resources

[Resource Conservation](#)

[Northeast Resource Recovery Association](#)

[EPA WasteWise](#)

[Institution Recycling Network](#)

[Donation Depot](#)

[Freecycle Network](#)

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Green Purchasing

Buy products that are sourced and/or manufactured in an environmentally responsible way

Basic

Yes No N/A

Buy local			
Implement a "buy recycled" policy specifying recycled content in procurement of office supplies (including personal supplies like paper towels and toilet paper)			
Look for "green" vendors, i.e., those that embrace environmental quality in their work			
Purchase in bulk to reduce packaging			
Purchase unbleached paper products for kitchen/break room and restroom, e.g., paper towels, coffee filters			
Use as few different multipurpose cleaners as possible; ask your supplier for environmentally friendly options			
Check MSDSs and warning labels; identify and avoid hazardous products			
Replace single use aerosols with refillable pump dispensers			
Use low VOC solvents and paints			
Stock/sell and use products that are less toxic and / or less polluting (Look for third party certification logos such as: Eco logo, DfE, Green Seal, e.g.)			
Implement "just-in-time" purchasing policy and "first in, first out" for chemicals			

Advanced

Yes No N/A

Centralize purchasing to eliminate unnecessary or duplicate purchasing			
Implement a "buy recycled" policy specifying recycled content in procurement of production materials			
Implement design and/or procurement specifications that favor the least toxic materials			
Purchase office products (carpets, furniture, etc.) with the most recycled content			
Purchase products and materials that are easily recyclable at end of life			

Green Purchasing - continued

Advanced

Yes No N/A

Buy cleaners in optimally sized containers to avoid extra packaging and product expiration			
Select products with the least packaging or in returnable, reusable or recyclable packaging			
Purchase concentrated cleaning products- dilute for use on-site and only at proper concentrations			

Resources

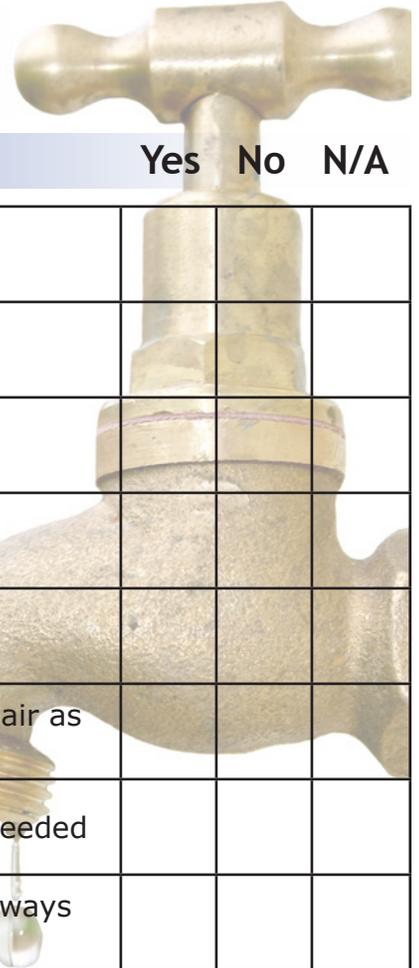
[Green Purchasing Guides](#)

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[EPA Design for the Environment \(DfE\)](#)

Water Conservation

Water is a precious resource;
don't waste it



Basic

Yes No N/A

Understand water bill and monitor water usage			
Set a goal for percent reduction for facility water use			
Regularly check for and repair all leaks			
Install low flow aerators or control valves in faucets			
Turn off cooling units in cool weather			
Manually test irrigation systems and sprinkler heads and replace/repair as needed			
Irrigate during the early morning or evening hours, and only when needed			
Use dry sweeping methods instead of water to clean sidewalks, walkways and parking areas			

Water Conservation - continued

Advanced

Yes No N/A

Maintain water pressure between 60-80 psi			
Install spring loaded shut-offs on water fixtures			
Replace water cooled equipment with air cooled equipment			
Eliminate all once-through cooling water systems with looped systems			
Replace toilets/urinals with lowest water use models			
Eliminate irrigation by planting native and drought resistant vegetation			

Resources

[NHDES - Drinking Water and Groundwater Bureau](#)

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[EPA Water Sense](#)

Stormwater Pollution Prevention

Make sure activities on your property do not adversely impact local waterways

Basic

Yes No N/A

Determine if your facility is required to have a Storm Water Pollution Prevention Plan EPA Stormwater Basic Information			
Routinely check storage areas and equipment for leaks or spills; repair/mitigate if needed			
Keep all hazardous chemicals away from any catch basins or storm drains			
Keep dumpsters covered when not in use			
Keep receiving/loading docks free of spills and debris			
Keep paved parking lots clear of debris, litter and excess gravel			
If storing hazardous materials or wastes outside, store in covered, sealed, sound containers and provide secondary containment			
Construct gravel parking lots or install pervious pavement to allow storm water infiltration			

Stormwater Pollution Prevention - continued

Advanced

Yes No N/A

Label catch basins to prevent dumping			
Install rain barrels or rain gardens			
Install vegetative swales in parking lots to filter stormwater			
Install pervious pavement			
Use low or no sodium deicing materials			
Sweep walkways and parking areas after a winter of salt and deicing compound application			
Implement an Integrated Pest Management (IPM) program for exterior pest control if necessary (RSA 430:50)			

Resources

[EPA Stormwater Basic Information](#)
[NHDES Stormwater Program](#)
[Integrated Pest Management](#)

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Groundwater Protection

Help protect New Hampshire's precious resource - Water

Basic Legal Requirements

Website: <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/bmps/index.htm>

Follow best management practices (BMPs) for groundwater protection (Fact sheet)			
Protect groundwater from floor drains and other typical discharges (Fact sheet)			
Register floor drains with NHDES (Registration Form)			
Manage wastewater discharges from vehicle washing properly (Fact sheet)			

Manufacturing/Product Stewardship

Reduce the environmental footprint of your products

Basic

Yes No N/A

Ensure packaging is compliant with the state's Toxics in Packaging Law (RSA-149-M:35)			
Minimize packaging			
Use recycled/recycleable packaging			
Make products compliant with EPA's Design for the Environment (DfE) program			
Use post-consumer recycled materials in products			
Make the product and its parts recyclable			
Establish a "take back" policy, where the product or its parts can be returned to the supplier for reuse, recycling or recovery			
Replace hazardous raw materials with non or less hazardous alternatives to the extent possible			
Organize production line flow to minimize the handling of hazardous materials			
Regularly calibrate all automatic process controls and adjust to prevent losses			
Use mechanical fluid transfer equipment rather than hand pouring to prevent spills			
Employ on-site distillation/filtration and reuse of fluids			
Cover process tanks to prevent heat and evaporation losses			
Modify equipment to make them more efficient, e.g., switch from standard to high volume low pressure spray guns			
Use secondary containment or berms in liquid storage areas			
Reuse or recycle process water wherever possible			
Minimize the production of waste and re-use or recycle waste materials			
Practice Toyota Production Systems (aka "Lean") manufacturing principals			

Resources

[Toxics in Packaging Law](#)

[Toxics in Packaging Clearinghouse](#)

[EPA's Green Chemistry Program](#)

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Environmental Management Systems

Achieve environmental goals using a systematic approach.

<i>Basic</i>	Yes	No	N/A
Develop and publicize an environmental policy			
Stay up to date with applicable environmental regulations			
Assess the environmental aspects of your products and/or services and determine their potential environmental impact(s)			
Have documented procedures to manage the environmental impacts of your products and/or services			

<i>Advanced</i>	Yes	No	N/A
Create an internal review team			
Conduct an audit			
Acquire ISO 14001:2004 certification			

Resources

[ISO 14000 - Environmental Management P2 Planning Guide](#) [EPA's EMS website](#)

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Air Emissions

Protecting air resources preserves our state's health and welfare.

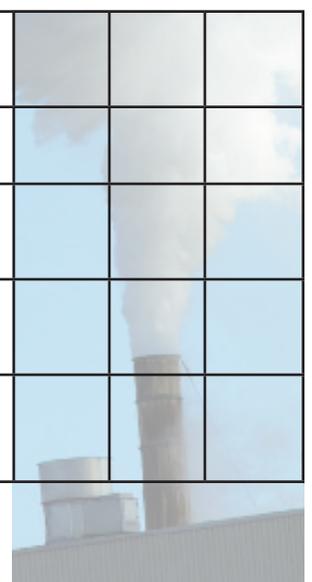
Basic Legal Requirements

Air rules can be found at:

<http://des.nh.gov/organization/commissioner/legal/rules/index.htm#air>

Determine if your facility or device(s) require a permit to limit air emissions (ARD-17)			
Complete a Regulated Toxic Air Pollutant determination (ARD-1)			
Determine if your facility is eligible to operate under emission caps established in Env-A 625 Limitations on Potential to Emit (Env-A 625)			
If you have an emergency generator, determine if you need a permit (ARD-17)			
Prior to any renovation or construction project, thoroughly inspect for asbestos and abate properly (asbestos brochure)			

NHDES Air Resources Division: (603) 271-1370



Hazardous Materials Handling & Hazardous Waste Management

Improperly managed hazardous waste can have significant impact on the environment.

Basic

Yes No N/A

Buy hazardous materials in smallest practical quantities			
Limit access to hazardous materials storage			
Properly store hazardous materials when not in use			
Use spill controls like splash guards and drip pans where needed			

Basic Legal Requirements

Hazardous waste rules can be found at:

<http://des.nh.gov/organization/commissioner/legal/rules/index.htm#waste>

Perform a 'hazardous waste determination' on all liquid and solid wastes (Fact Sheet)			
Store and dispose of universal waste properly (Fact Sheets: fluorescent lamps , thermostats , batteries , antifreeze)			
Store and manage waste oil properly Link to Website			
Register above-ground storage tanks, including oil-filled transformers, with the state Link to Website			
Register and operate underground storage tanks in accordance with NH state rules Link to Website			
Insure underground storage tank owner or operator has a Class A, B or C certified operator, as applicable, assigned to the facility Link to Website			
Determine if you are a ' small quantity generator ' or a ' full quantity generator ' and manage wastes accordingly			
For full quantity generators, insure a state certified hazardous waste coordinator is on staff Link to Website			
Small quantity generators require a self-certification form to be completed and filed every three years Link to Website			
Train employees regularly on hazardous material handling procedures			
Store hazardous wastes properly Env-Hw 507 (Search for: Env-Hw 507 Storage Requirements)			

NHDES Hazardous Waste Management Bureau: (603) 271-2942
Toll Free In-State Hotline: (866) HAZWAST
Email: hwcomp@des.nh.gov

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Appendix

ENERGY

NH Office of Energy and Planning: <http://www.nh.gov/oep/energy/saving-energy/rebates-incentives.htm>

NHSaves Energy Solutions for NH: <http://nhsaves.com/>

VEHICLES AND FLEETS

Vehicle Fuel Economy Information: <http://www.fueleconomy.gov/>

SmartWay: <http://www.epa.gov/smartway/>

Granite State Clean Cities Coalition: <http://www.granitestatecleancities.nh.gov>

Ride Share: <http://www.nh.gov/dot/programs/rideshare/>

SOLID WASTE AND RECYCLING

Resource Conservation: <http://www.epa.gov/epawaste/conserve/>

EPA WasteWise: <http://www.epa.gov/epawaste/conserve/smm/wastewise/index.htm>

Institution Recycling Network: <http://www.ir-network.com/>

Northeast Resource Recovery Association: <http://www.nrra.net/>

The Donation Depot: <http://www.thedonationdepot.com/>

Freecycle Network: <http://www.freecycle.org/>

GREEN PURCHASING

Green Purchasing Guides: <http://www.epa.gov/epp/pubs/greenguides.htm>

Design for the Environment: <http://www.epa.gov/dfe/>

WATER

Water Conservation: http://des.nh.gov/organization/divisions/water/dwgb/water_conservation/

EPA WaterSense: <http://www.epa.gov/watersense/>

STORM WATER POLLUTION PREVENTION

Stormwater Pollution Prevention: <http://cfpub.epa.gov/npdes/stormwater/swbasicinfo.cfm>

NHDES Stormwater Program: <http://des.nh.gov/organization/divisions/water/stormwater/index.htm>

Integrated Pest Management: <http://www.epa.gov/pesticides/factsheets/ipm.htm>

GROUNDWATER PROTECTION

Best Management Practices (BMPs) for Groundwater Protection:
<http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-22-4.pdf>

Protecting Groundwater from Floor Drains and Other Typical Discharges:
<http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-22-9.pdf>

Floor Drain Registration Form:
http://des.nh.gov/organization/divisions/water/dwgb/dwspp/bmps/documents/floor_drain_form.pdf

Wastewater Discharges from Vehicle Washing:
<http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-22-10.pdf>

MANUFACTURING/PRODUCT STEWARDSHIP

Toxics in Packaging: <http://des.nh.gov/organization/commissioner/pip/factsheets/sw/documents/sw-27.pdf>

EPA's Green Chemistry Program: <http://www2.epa.gov/green-chemistry>

Toxics in Packaging Clearinghouse: <http://www.toxicsinpackaging.org/>

ENVIRONMENTAL MANAGEMENT SYSTEMS

ISO 14000: <http://www.iso.org/iso/home/standards/management-standard/iso14000.htm>

EPA Environmental Management Systems: <http://www.epa.gov/EMS/>

P2 Planning Guide: <http://des.nh.gov/organization/commissioner/pip/publications/co/documents/co-07-5.pdf>

AIR EMISSIONS

ARD 17 - FAQs About New Hampshire's Air Permit Program

<http://des.nh.gov/organization/commissioner/pip/factsheets/ard/documents/ard-17.pdf>

ARD 1 - New Hampshire's Air Toxics Control Program

<http://des.nh.gov/organization/commissioner/pip/factsheets/ard/documents/ard-1.pdf>

Env-A 625 Limitations on Potential to Emit (scroll down to 625)

<http://des.nh.gov/organization/commissioner/legal/rules/index.htm#air>

Asbestos Brochure

http://des.nh.gov/organization/commissioner/pip/publications/ard/documents/asbestos_brochure.pdf

HAZARDOUS WASTE MANAGEMENT

Identification of Hazardous Waste:

<http://des.nh.gov/organization/commissioner/pip/factsheets/hw/documents/hw-11.pdf>

Universal Waste Management:

<http://des.nh.gov/organization/commissioner/pip/factsheets/hw/documents/hw-7.pdf>

<http://des.nh.gov/organization/commissioner/pip/factsheets/hw/documents/hw-17.pdf>

<http://des.nh.gov/organization/commissioner/pip/factsheets/hw/documents/hw-23.pdf>

<http://des.nh.gov/organization/commissioner/pip/factsheets/hw/documents/hw-4.pdf>

Used Oil Regulations: <http://des.nh.gov/organization/divisions/waste/orcb/fms/uomp/index.htm>

Above Ground Storage Tanks: <http://des.nh.gov/organization/divisions/waste/orcb/ocs/astp/index.htm>

Under Ground Storage Tanks: <http://des.nh.gov/organization/divisions/waste/orcb/ocs/ustp/index.htm>

Under Ground Storage Tanks Operator Certification:

<http://des.nh.gov/organization/divisions/waste/orcb/ocs/ustp/operator-training/index.htm>

Hazardous Waste Management: <http://des.nh.gov/organization/divisions/waste/hwcb/index.htm>

HOSPITALITY INDUSTRY

NH Lodging and Restaurant Association Sustainability Program:

<http://www.nhlra.com/programs-services/nhlra-programs/sustainability-program>

POLLUTION PREVENTION

NH Pollution Prevention Program: <http://des.nh.gov/organization/commissioner/p2au/pps/ppp/>

