



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

AUG 26 2010

Major Stephen Lippert
National Guard Bureau
NGB/A7AM, Conaway Hall
3500 Fetchet Avenue
Andrews MD 20762-5157

Dear Major Lippert:

The Environmental Protection Agency (EPA) has reviewed the draft Final Environmental Assessment (EA) for MQ-9 Reaper mission conversion and short-term construction projects proposed by the New York Air National Guard (ANG) at Fort Drum, New York. The proposed action would allow the National Guard Bureau to train operators to use the MQ-9 Reaper to support their mission utilizing Wheeler-Sack Army Airfield's (WSAAF) active runway 03/21 (10,000-feet x 150-feet) to provide combat-ready personnel, aircraft, and equipment for worldwide deployment. EPA has reviewed the draft EA and has not found any major areas of concern but has the following recommendations.

EPA encourages the ANG to implement green practices and techniques during development and operation of the project. For example, air emissions during construction will include particulate matter (PM_{2.5} and PM₁₀). To reduce the potential health and environmental impacts of these pollutants in the project area and to improve the conditions for the workers, the installation of diesel particulate filters (DPF) on the mechanical equipment should be considered. DPFs can reduce diesel particulate emissions by 90 percent for stationary and non-stationary diesel equipment. To learn more about this technology and its application, you may reference DPFs at <http://www.epa.gov/diesel/retrofit-tips.htm> or contact us directly.

To meet electrical needs during MQ-9 Reaper mission conversion development and operation, EPA recommends obtaining electricity from alternative and/or renewable sources. The Department of Energy offers the newly developed Renewable Energy Incentive Program. The program provides incentives and support services for participants to build renewable energy projects using solar, and wind technologies. In addition, the Department of Energy's "Green Power Network" (GPN) provides information and markets that can be used to supply alternative-generated electricity. The following link identifies several suppliers of renewable energy in New York: <http://apps3.eere.energy.gov/greenpower/buying/index.shtml>.

Internet Address (URL) • <http://www.epa.gov>

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Thank you for the opportunity to comment. Enclosed is a list of "U.S. EPA Region 2, Green Recommendations" that can assist you in greening this and other projects. Should you have any questions or need additional information, please contact Charles Harewood of my staff at (212) 637-3753.

Sincerely yours,

A handwritten signature in cursive script that reads "Grace Musumeci".

Grace Musumeci, Chief
Environmental Review Section

Enclosure

U.S. EPA Region 2 Green Recommendations¹

Recommendations:

To the maximum extent possible, projects are encouraged to use local and/or recycled materials; to recycle materials generated onsite; and to utilize low emissions technology and fuels. Further, they should use, to the extent feasible, renewable energy (including, but not limited to solar, wind, geothermal, biogas, and biomass) and energy efficient technology in the design, construction, and operation of transportation, building, and infrastructure projects.

- **ENERGY STAR/Multi-media green building and land design practices**
Require green building practices which have multi-media benefits, including energy efficiency, water conservation, and healthy indoor air quality. Apply building rating systems and tools, such as Energy Star, Energy Star Indoor Air Package, and Water Sense for stimulus funded building construction. Third party high-bar, multimedia standards should be required for building construction and land design (LEED and Sustainable Sites Initiative, Collaborative for High Performance Schools (CHPS), or local equivalent).
<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=64>
http://www.energystar.gov/index.cfm?c=business.bus_bldgs
http://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_iap
- **Encourage water conservation in building construction**
Promote the use of water-efficient products to be used in new building construction through the use of WaterSense-labeled products and the use of contractors certified through a WaterSense-labeled program. <http://www.epa.gov/watersense/water/fed-agency.htm>
- **Encourage Low Impact Development to help manage storm water**
Low Impact Development (LID) is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product.
<http://www.epa.gov/nps/lid/>
- **Alternative and Renewable Energy**
The Department of Energy's "Green Power Network" (GPN) provides information and markets that can be used to supply alternative generated electricity. The following link identifies several suppliers of renewable energy. http://apps3.eere.energy.gov/greenpower/buying/buying_power.shtml?state=NJ

¹ "Green" here means environmentally sound practices in general and is not equivalent to the specific "green infrastructure" requirements in the American Recovery and Reinvestment Act (ARRA). Please note that this list is not meant to be all inclusive.

- Ensure clean diesel practices**
 Implement diesel controls, cleaner fuel, and cleaner construction practices for all on- and off-road equipment used for transportation, soil movement, or other construction activities, including:

 - 1) Strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits;
 - 2) Use of ultra low sulfur diesel fuel in nonroad applications ahead of the mandate; and
 - 3) Use of the cleanest engines either through add-on control technologies like diesel oxidation catalysts and particulate filters, repowers, or newer, cleaner equipment

Encourage entities to consider adopting contract specifications requiring advanced pollution controls and clean fuels. A model spec is online at (applies to both on and non-road engines):
<http://www.northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf>
 Additional Information: <http://www.epa.gov/diesel/construction/contract-lang.htm>
 How to guide: <http://www.mass.gov/dep/air/diesel/conretro.pdf>
- Promote the use of recycled materials in highway and construction projects**
 Many industrial and construction byproducts are available for use in road or infrastructure construction. Use of these materials can save money and reduce environmental impact. The Recycled Materials Resource Center has developed user guidelines for many recycled materials and compiled existing national specifications. <http://www.recycledmaterials.org/tools/uguidelines/index.asp>
<http://www.recycledmaterials.org/tools/uguidelines/standards.asp>
<http://www.epa.gov/osw/conserv/rrr/imr/index.htm>
- Encourage safe reuse and recycling of construction wastes**
 Promote reuse and recycling at the 50% (by weight) level for building, road, and bridge project construction and demolition debris wastes. The *Federal Green Construction Guide for Specifiers* includes a construction waste management specification.
http://www.wbdg.org/design/greenspec_msl.php?s=017419
- Encourage sustainable storm water management at building sites**
 Implement site planning, design, construction, and maintenance strategies to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the building site with regard to the temperature, rate, volume, and duration of flow.
http://cfpub.epa.gov/npdes/home.cfm?program_id=298
 Consider designs for storm water management on compacted, contaminated soils in dense urban areas:
<http://www.epa.gov/brownfields/publications/swdp0408.pdf>.
- Encourage cost-efficient, environmentally friendly landscaping**
 EPA's GreenScapes program provides cost-efficient and environmentally friendly solutions for landscaping. Designed to help preserve natural resources and prevent waste and pollution, GreenScapes encourages companies, government agencies, other entities, and homeowners to make more holistic decisions regarding waste generation and disposal and the associated impacts on land, water, air, and energy use. <http://www.epa.gov/osw/conserv/rrr/greenscapes/index.htm>
- Incorporate onsite energy generation and energy efficient equipment upgrades into projects at drinking water and wastewater treatment facilities**
 Promote the use of captured biogas in combined heat and power systems and/or renewable energy (wind, solar, etc.) to generate energy for use onsite as well as upgrades to more energy efficient equipment (pumps, motors, etc.)
http://www.epa.gov/waterinfrastructure/bettermanagement_energy.html

- **Encourage land development in brownfield and infill sites**
 Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. These sites are often “infrastructure-ready,” eliminating the need to build new roads and utility lines which are necessary in undeveloped land. <http://www.epa.gov/brownfields/>
- **Use the Integrated Design process on building developments**
 Current procurement practices tend to separate out development into distinct stages that discourage communication across the project lifecycle. The Integrated Design process calls for the active and continuing engagement of all stakeholders throughout the building design, development, and construction phases including the owners, architects, engineers, building department officials, and other professionals. This process can help create a higher performing building at lower costs, allows for various building systems to work together, eliminates redundancy from overdesign and unnecessary capacity, and minimizes change orders during the construction phase. We encourage revising procurement practices so that it can use the Integrated Design process. http://www.wbdg.org/design/engage_process.php
- **Encourage use of Smart Growth and transit oriented development principles**
 Smart Growth and transit oriented development (TOD) principles help preserve natural lands and critical environmental areas, and protect water and air quality by encouraging developments that are walkable and located near public transit. <http://www.epa.gov/smartgrowth>
- **Ensure environmentally preferable purchasing**
 Promote markets for environmentally preferable products by referencing EPA’s multi-attribute Environmentally Preferable Purchasing guidance. <http://www.epa.gov/epp>
- **Purchase ‘green’ electronics, and measure their benefits**
 Require the purchase of desktop computers, monitors, and laptops that are registered as Silver or Gold products with EPEAT, the Electronics Product Environmental Assessment Tool (www.epeat.net). Products registered with EPEAT use less energy, are easier to recycle, and can be more easily upgraded than non-registered products. Energy savings, CO₂ emission reductions, and other environmental benefits achieved by the purchase, use and recycling of EPEAT-registered products can be quantified using the Electronics Environmental Benefits Calculator (<http://eerc.ra.utk.edu/ccpct/eebc/eebc.html>).
- **Incorporate greener practices into remediation of contaminated sites**
 Encourage or incentivize the use of greener remediation practices, including designing treatment systems with optimum energy efficiency; use of passive energy technologies such as bioremediation and phytoremediation; use of renewable energy to meet power demands of energy-intensive treatment systems or auxiliary equipment; use of cleaner fuels, machinery, and vehicles; use of native plant species; and minimizing waste and water use. <http://clu.in.org/greenremediation/index.cfm>