1. Describe the type and size of your military installation.

The Army National Guard has facilities at 54 locations throughout Illinois. 31 facilities perform maintenance on vehicles and three of these facilities perform helicopter maintenance. The maintenance facilities are similar to auto repair shops. The armory locations are buildings with offices, training classrooms and unit supply rooms (for unit equipment). Typically no vehicle maintenance is performed at armories.

2. List the environmental goals for your installation (e.g., reduce waste by X percent each year, increase energy efficiency by X percent over the next _ years, provide environmental awareness training to X number of staff, establish an employee incentive program to generate waste reduction ideas, increase purchase of X type of products made with recycled content and replace _ raw materials and supplies that have hazardous components with acceptable substitutes that have no or less hazardous ingredients) and describe the progress you made towards achieving them in the previous year. The goals may be facility or process-level specific. They should also be indexed to account for changes in production or service levels.

1) Eliminate hot parts washer discharge to the sanitary sewer.
2) Reduce waste from small arms weapons cleaning and consolidate the waste at the firing range.
3) Establish a system to reuse the cleaning fluid in the SMART Washer parts cleaner system (a combination of degreaser solution and microbes).
4) Establish a web based virtual pharmacy for excess hazardous materials in the Illinois Army National Guard.
5) Reduce paint waste at the Camp Lincoln facility by 50 %.
6) Reduce solid waste at our locations where recycling services are available.
7) Reduce the waste generated by the Helicopter fuel path cleaner.

3. Describe the pollution prevention (P2) projects you implemented in the previous calendar year. (You may include an attachment summarizing past P2 accomplishments with your first year report.)

Recycling all types of filters (fuel, oil, transmission, parts cleaner, etc.) through First Response. They collect the filters and shred the filters. The paper is used to fuel a power plant. The metal is combined with scrap and recycled. The oil and fluids are blended for marine grade diesel.

Dispose of off-specification gasoline and aviation fuel with vendors who use it in fuel blending or energy recovery facilities.

Established a pilot project last year that filters used cleaning solutions from hot parts washers to be re-used in the process. The used solution is eliminated from being discharged into the sanitary sewer. The oils and grease collected from the filter process is added to the shop’s used oil collection.
At about 50% of our maintenance facilities, aerosol cans are evacuated into an aerosol can evacuator attached to a small drum. The can contents are collected for disposal and the can is recycled. This eliminates discarding empty cans from the solid waste trash and partially full cans from the hazardous waste disposal. The aerosol is filtered through a carbon filter.

Vehicle batteries are exchanged one for one for new batteries through a vendor (currently Interstate Battery).

Vehicle tires are exchanged one for one for new tires through vendors.

White paper, office waste (colored paper, magazines, newspaper, etc.) and cardboard is recycled at Camp Lincoln through the State of Illinois’ I-Cycle program.

At the maintenance facilities, all types of metal are recycled through local recycling vendors and the Defense Reutilization and Marketing Office (DRMO).

At about 25% of our armory facilities, microbes are added the kitchen grease traps to clean them. This eliminates a special waste disposal and the time it takes to physically clean the trap once a month.

At our North Riverside Combined Support Maintenance Shop we distill the paint gun cleaning solvent for re-use on site. This has reduced our paint waste from this facility by approximately 75%.

Solvent use for parts cleaning has been reduced by approximately 85%.

4. Where feasible, quantify any environmental improvements, cost-savings or other benefits (e.g., enhanced community relations, improved employee morale, decreased regulatory transaction costs) associated with implementing P2 projects during the previous year.

29 out of 31 maintenance facilities went from a Small Quantity Generator status to a Conditionally Exempt Small Quantity Generator status.

The use of aqueous parts cleaners has improved the health environment of the maintenance shop employees.

5. Describe any efforts to involve members of the local community in your environmental programs (e.g., convened public meeting to identify issues and solicit feedback, distributed facility information using newsletters or media, conducted an installation tour, formed a citizen advisory committee).

None

6. Describe any efforts to foster exchange of P2 information and technology transfer (e.g., provided technical assistance to other facilities, organized tours of innovative installation projects, worked with suppliers and gave a presentation at a technical meeting).

We worked with Waste Management Research Center on smaller scale applications of the membrane filter for hot parts washer that can be easily adapted to any size maintenance activity. This application actually attaches the membrane filter to the hot parts washer to provide a simpler system for filtering used cleaning solution. This reduces the time it takes to clean used cleaning solution. This has the potential to change the design of future hot parts washer to include a filter of this type on these machines for more efficient cleaning operations.

We also worked with Waste Management Research Center on a concept design of a bulk weapons cleaner system. We experimented with different cleaning applications and determined that an ultrasonic aqueous based cleaning system would perform the task the best. This system will be designed and built next year. This is a unique and first of its kind approach for the cleaning of multiple military weapons at one time. This could be used by other military and civilian law enforcement agencies in the future.