PREPRODUCTION INITIATIVE-NELP
AVIATION FUEL RECLAMATION SYSTEM
COST ANALYSIS

PROTOTYPE SITE: NAS North Island

DESCRIPTION: Recycles JP-5 aviation fuel samples that were collected and segregated by the squadron for reuse in aircraft. Minimizes fuel waste that is currently disposed of or used as lower grade fuel. Institutes waste segregation to reduce overall hazardous waste. This opportunity is in accordance with OPNAVINST 4110.2, Hazardous Material Control and Management (HMC&M) program initiatives. The system includes filter/separator vessels, fuel/water separator vessel, 100-gpm transfer pump, 15-gpm recirculation pump, motor, 2,000-gallon process tank, and 1,000-gallon issue tank. Each batch of recycled fuel undergoes quality assurance testing before it is issued to aircraft or blended into stocks.

DATA COLLECTION PERIOD: July 1996 - September 1996

COST SAVINGS: Previously, waste fuel products, including JP-5 samples, were segregated and stored in HazMat storage areas maintained by each squadron. A contractor, under the supervision of the fuel farm, collected waste fuels from the squadrons, commingling all the fuel grades in one tank truck. The contractor transferred the fuel to the hazardous waste/waste oil storage tanks located at the fuel farm. Fuel farm personnel estimate that approximately 600 gallons per week of this waste fuel is composed of potentially recyclable JP-5. Previous studies incorporating the number of squadrons and detachments assigned to NAS North Island indicate that up to 1,000 gallons per month of JP-5 may be reclaimed for reuse in aircraft. Because of the practice of commingling the JP-5 with other waste fuels, the exact quantity of waste JP-5 under the previous method is not known. Therefore, the cost analysis will be based on the quantity of fuel collected under the NELP method.

PREVIOUS METHOD: Disposition of JP-5 as Waste Fuel

Consumables

Potentially reusable gallons of JP-5 per month: 1,000 (approximate)
Cost per gallon: $.79
Cost per year: $9,480.00

Labor

The labor hours are the same as the NELP Method, with the exception of sampling and equipment maintenance and operation. Therefore, the number of hours under the previous method have not been calculated; only the additional hours have been considered. The waste fuel must be collected and handled under each method.

Waste Disposal

Gallons of waste JP-5 per month: 1,000
Cost per gallon: TBD

Total Annual Costs

Item	Cost
Consumables	$9,480.00
Labor	0 (new hours)
Waste Disposal	TBD
Total	TBD

NELP METHOD: Aviation Fuel Reclamation System

Consumables

Filter/separator elements used per year: 2
Cost per element: TBD

Labor

Hours per week: 5
Labor cost: TBD

Waste Disposal

No waste disposal costs

Procurement Reduction

Gallons of recycled fuel per month: 1,000 (average to date)
Elimination of new procurement per year: $9,480.00

Total Annual Costs

Item	Cost
Consumables	TBD
Labor	TBD
Waste Disposal	$0.00
Procurement Reduction	-9,480.00
Total	TBD

COST ANALYSIS SUMMARY (PER YEAR)

Disposition of JP-5 as Waste Fuel	TBD
JP-5 Aviation Fuel Reclamation System	TBD
Cost Change	TBD
Initial Procurement	$67,329.00*
Expected Service Life	10 years
Return on Investment (per 10-year period)	TBD
Break Even	TBD

*Does not include cost of spares package.

Cost Analysis Report Disclaimer
This cost analysis report applies only to the site(s) indicated where the equipment was prototyped and monitored. This information is offered as a guide so that readers can determine if such equipment will benefit their particular site based on factors such as comparative hazardous waste generation.