

US EPA ARCHIVE DOCUMENT

**APPLICATION FOR EPA PROJECT XL/COLORADO ENVIRONMENTAL
LEADERSHIP PROGRAM**

Prepared for

DENVER/BOULDER METROPOLITAN AREA

Prepared by

**USPS Colorado/Wyoming Performance Cluster
Environmental Office**

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Project Summary and Background

During Fiscal Year 1999, the United States Postal Service (USPS) initiated a solicitation for the purchase of 10,000 new delivery vehicles. An option of 10,000 additional vehicles was included for the following year. The delivery vehicle specified for production included the following criteria:

- Right hand drive
- Energy Policy Act Compliant
- Sufficient cargo space to meet expanding parcel delivery requirements
- Meeting all EPA regulations

Only one manufacturer, Ford Motor Company, exhibited significant interest in the solicitation. It was determined that no existing vehicle met all of the operational requirements of the solicitation. The resulting vehicle, termed the USPS Carrier Route Vehicle (CRV) was selected to best meet USPS operational requirements. The CRV is a flex fuel vehicle (FFV) capable of operating on unleaded gasoline with up to 85% ethanol (E-85). The CRV therefore complies with the EPACT requirements but will fall short of full compliance with EPA LEV requirements during its first year of production. The CRV will meet TLEV emission standards in its first year of production. The USPS will not deploy CRVs into an area where deployment would cause noncompliance with federal Clean Fuel Fleet Program (CFFP) requirements. A CRV profile is included as Attachment I.

The purpose of the CRV purchase is to replace aging USPS delivery vehicles across the country. USPS vehicles to be replaced include model year 1975-76 Jeeps, 1979 Jeeps, and 1983 Vans. National deployment of CRVs is to begin with 500 in October 1999 and continue at 1,000 per month thereafter. Delivery of vehicles within Model Year 2000 will trigger the application of the Colorado Clean Fuel Fleet Program (CFFP) requirements.

As a result of this operationally required vehicle buy, the USPS Denver/Boulder metropolitan area management is faced with the following CFFP compliance options as summarized in Table 1 below.

Table 1. CFFP Compliance Options

| | <i>Option</i> | <i>Assumption</i> | <i>Potential Negatives</i> | <i>Potential Benefits</i> |
|---|---|---|--|--|
| A | Receive no new delivery vehicles (operational negative) | CFFP Waiver not granted | No new delivery vehicles which are necessary for business growth, 522 aging vehicles targeted for replacement remain in service | No CFFP compliance issue, no administrative burden on USPS |
| B | Receive original USPS deployment quantity of 321 Flex Fuel CRVs | CFFP Waiver granted for right hand drive vehicles | Negative press, \$15,000 cost to retrofit USTs | No additional administrative burden, utilize E-85 where USPS tank systems are in place (218 vehicles), receive 321 CRVs |
| C | Receive 810 Flex Fuel CRVs | Project XL/CO ELP Agreement to allow emission credits for CRV | Upgrade costs for three existing USTs (\$15,000) fuel availability may be unstable within public infrastructure, additional relocation cost for 282 LLVs (approx. \$141,000) | Significant reduction of air emissions, positive community relations, 810 additional CRVs, agency partnerships, generation of emission credits, stable fuel prices, positive impact on local air quality, public E-85 infrastructure development, 522 Denver/Boulder based aging vehicles replaced |

Note: Under Option C, 282 existing Denver metro LLVs will be relocated to other Western cities. LLVs are the current standard postal delivery vehicle.

The best option for the USPS is Option C. In addition, the USPS believes that successful implementation of this option is in the best interest of regional air quality, the associated goals of the EPACT, and further development of alternative fuel infrastructure within the region. Using the EPA Project XL format and the regulatory framework present in the Colorado Environmental Leadership Program (CO ELP), USPS proposes to implement an environmental solution that promises environmental results superior to those achievable under current regulations and policies.

Environmental Results

The USPS currently has 232 Compressed Natural Gas (CNG) vehicles operating in its Denver metropolitan area delivery fleet of 1797 vehicles. The current utilization of CNG in these vehicles is approximately 65%-70%. Successful implementation of this proposed Project XL will result in the introduction of 810 additional alternative fuel vehicles. Once fully deployed the USPS Denver metropolitan area delivery fleet would be comprised of approximately 60% alternative fuel vehicles (1042 of 1797). A total of 218 of the CRVs deployed in Denver will be placed at three USPS delivery facilities that currently have underground storage tanks. These on-site storage tanks will be upgraded to house E-85 fuel. E-85 is currently available in bulk from local fuel wholesalers.

With assistance from retail fueling outlets, public fueling infrastructure can be spawned as a result of the USPS introduction of a significant number of FFVs within the region. The National Ethanol Vehicle Coalition is currently working with Denver area fueling industry to offer E-85 at retail outlets. In addition, the USPS Western Area is considering a relocation of underutilized CNG vehicles from other western states. Because of its exemplary utilization rates, the Denver metropolitan area is a candidate recipient of surplus CNG vehicles.

The environmental benefits of successful implementation of this project will be numerous. They are summarized below:

- Introduction of 810 alternative fuel CRVs within the Denver metropolitan area.
- A significant decrease in USPS contribution to mobile source emissions within the Denver metropolitan area. Model year 2000 vehicle engines are inherently cleaner burning and more fuel efficient than older model year vehicle engines.
- Expedited removal of 522 1975-1983 model year delivery vehicles from the Denver/Boulder non-attainment area. Vehicles will be removed from service and sold as scrap.
- Reduction in point source emissions of hazardous chemical constituents (e.g., benzene) associated with unleaded fuel dispensing.
- Increased market demand for E-85 fuel which will provide economic incentive for retail fuel providers. E-85 is currently a demonstration fuel in the City of Denver.
- Reduction in total unleaded gas consumption, with corresponding increase in consumption of domestically produced fuel.
- Creation of a model USPS alternative fuel vehicle metropolitan area.
- The ethanol component of E-85 fuel presents less risk to the environment in storage.

The use of alternative fuels by the USPS will be made publicly visible. USPS will work with the local Clean Cities organization and the State of Colorado to prepare and issue a press release to local media touting the arrival of the new CRVs. USPS representatives will be available for interviews, if requested by the local media. This approach should increase the public's knowledge of the USPS' use of alternative fuels, the benefits to such use, and the efforts of other stakeholder's involvement in clean air programs. The project will demonstrate to other fleet operators within the community how alternative fuels can be beneficial to their business and their community. In addition, the benefits of Project XL/CO ELP will be again displayed as part of this successful implementation.

Stakeholder Support

The organizations that will have an interest as a stakeholder in this project include but are not limited to: City and County of Denver Clean Cities Organization, Citizens of Denver/Boulder, Ford Motor Company, Colorado Corn Administrative Committee, National Ethanol Vehicle Coalition, Local and National Environmental Organizations, U.S. Environmental Protection Agency, U.S. Department of Energy, State of Colorado, local ethanol production industry, and local gasoline service stations.

The major impetus of this project is to assist in the development of alternative fueling infrastructure in the Denver metropolitan area, specifically E-85 fueling infrastructure. In order for this project to succeed, it will take the combined effort of the above listed organizations and the USPS in providing both E-85 Flex fuel vehicles to support the infrastructure as well as providing the E-85 fueling infrastructure itself. The deployment of CRVs can be paralleled by the deployment of E-85 public fueling infrastructure that will support the vehicles. This will be addressed by some of the stakeholders listed earlier. There will be a need for coordination on the part of the ethanol producers, local fuel distributors and the National Ethanol Vehicle Coalition, in providing the necessary fueling infrastructure to allow CRV's to operate on E-85 fuel. This is the most critical stakeholder support action that is required for the success of the project.

Other support will be provided during the deployment of the new Flex fuel vehicles in the form of press releases, presentations, and a public ceremonies announcing the opening of fueling locations and the arrival of the new CRV's. Organizations can further promote the availability of the new E-85 fueling infrastructure through conferences and informational pamphlets. This will assist in accomplishing many of the secondary goals of the project by increasing availability, awareness, and usage of E-85 as an alternative fuel. The ultimate goal of the CFFP, to assist in the overall

improvement of air quality in the Denver metropolitan area, will be realized through the combined efforts of the involved organizations.

Innovation/Multi-Media Pollution Prevention

The CRV in and of itself is an example and demonstration of new engine technology. The implementation of 810 of these FFVs will provide an active and visible demonstration of this emerging automotive technology. The USPS delivery vehicles will be present in hundreds of neighborhoods on a daily basis. Flex fuel vehicle technology in practice will generate media attention that can be used to inform the public regarding the applicability of this new technology and its flexibility of operation on multiple fuels. In addition to the production of the CRVs, the USPS Denver metropolitan area administrative fleet currently includes sixteen 1999 Ford Taurus Sedans that are FFVs.

The USPS has developed technical specifications for modifying existing underground storage tanks (USTs) to properly house E-85 fuel. These modified USTs will serve as demonstration projects for public evaluation. Successful implementation will allow other community businesses to evaluate the USPS fueling systems in consideration of modifying their own fuel storage infrastructure.

Another innovative strategy involved in this project is the manner in which the CRVs are proposed to be deployed. The USPS Corporate plan is to concentrate CRVs within a limited number of metropolitan regions across the Western United States and to further concentrate CRVs at facilities within these chosen metropolitan areas. The USPS objective in adopting this strategy is to promote development of retail E-85 fueling infrastructure. In essence, the USPS is proposing to concentrate the vehicles in a relatively limited number of locations (i.e., USPS facilities with greater than 50 delivery vehicles) thereby establishing retail fuel vendors with a viable market base as an incentive to providing E-85.

Transferability

Aspects of this project will be transferable to all forms of government, business, industry, and private citizens that operate vehicles. Two aspects will prove to be very important to entities outside the Postal Service. These are the development of a sustainable E-85 infrastructure, and a demonstration of the ease of use and affordability of E-85 vehicles in fleet applications as well as for private use vehicles.

The E-85 infrastructure will be realized by other entities upon completion of the project. This can allow businesses that have existing E-85 flex fuel vehicles in their fleet to now use them on an alternative fuel. The final report for the project can be

disseminated to interested parties to allow them to see the ease and affordability of purchasing an alternative fuel vehicle. As companies purchase more alternative fuel vehicles as a direct result of the observations and information obtained from the final report for this project, compliance with the Colorado Clean Fuel Fleet Program, and ultimately the air quality for the Denver metropolitan area, will improve considerably.

In addition, there may be an opportunity to directly transfer this Project XL to one or more of the other CFFP cities.

Feasibility

The contract has been negotiated and awarded for delivery of 10,000 CRVs nationwide in the first year of the contract. The CRVs are in final design stage. Ford will begin production and national delivery in October 1999. CRVs will only be deployed in Denver if the USPS receives inclusion in the CFFP through Project XL or, as a last resort, is granted a Regulation 17 waiver for the CRV.

The USPS will work closely with its stakeholders, in particular the National Ethanol Vehicle Coalition, to promote and encourage the development of E-85 fueling at retail fueling stations. The USPS can provide market incentive for retail fueling stations to provide E-85. The USPS can also contract for and receive bulk delivery of E-85 to its facilities with on-site USTs. At least two sources of E-85 bulk fuel are presently available. This will provide for immediate E-85 utilization of some 218 CRVs.

The USPS is seeking assistance with funding for additional relocation costs associated with deployment of CRVs in the Denver metropolitan area. Potential funding sources include the Department Of Energy, the National Ethanol Vehicle Coalition, and USPS Headquarters. A total of 282 LLVs will need to be relocated from Denver metro area to other Western cities not receiving their original deployment quantity of CRVs.

Monitoring, Reporting and Evaluation

Upon completion of this project, a final report will be compiled outlining aspects of the project and their corresponding success. The report will include a narrative that outlines the process and steps that were necessary to implement this project. It will also describe the roles and responsibilities of stakeholders that facilitated project success.

Other report elements, included to assist organizations that would like to duplicate the project, will be as follows:

- Discussion of the affordability, availability, and ease of purchase of FFVs.
- Discussion of FFV performance.
- Location map of retail E-85 fueling locations.
- Engineering specifications for modified UST systems.
- Utilization report for CRVs operating in the Denver metropolitan area.
- Other lessons learned and pitfalls to avoid.

The final report will be drafted one year after completed delivery of 810 CRV's.

Shifting of Risk Burden

The safety technology incorporated into all new vehicles benefits those drivers who will be operating the new CRVs. The USPS will be replacing vehicles that are approximately twenty years old. Advances in safety technologies of vehicles in the past two decades are an inherent benefit to the vehicle operator. In this way the project will be significantly reducing risks to vehicle operators.

Shifting of environmental risk is limited to the following. CRVs which would have originally been deployed to several other Western cities will be instead concentrated in Denver/Boulder metropolitan area. A total of 282 LLVs will be relocated to these other Western Cities in lieu of CRVs. LLVs are 1987-1991 vintage USPS delivery vehicles that will be relocated to replace aging USPS vehicles such as 1979 jeeps. No group of citizens or neighborhood will be subject to disproportionate environmental impacts.

Additional Project Considerations

The USPS is requesting the following considerations in order to comply with applicable CFFP regulations, reduce the economic impacts of the proposed project, and to ensure this beneficial project becomes a reality. All considerations listed below are included as regulatory incentives within the CO ELP.

- Assistance with preparation of a Project XL/CO ELP press release providing positive publicity for all stakeholders involved.
- Public recognition by the Governor and the state health department.
- Preferred vendor status.
- Receipt of one CFFP credit for each CRV introduced in the CFFP region.

Attachment I - CRV Profile

**Attachment II - State of Colorado Environmental Leadership
Program Submittal**

Applicant Information

Name of Applicant:

United States Postal Service, Colorado/Wyoming District

Contact Person:

Ryan Walker, Environmental Compliance Coordinator

Mailing Address and Phone Number:

1501 Wynkoop Street, Room 417
Denver, CO 80266-3001
303-454-4142

Environmental Permits Held:

The District office holds no environmental permits. Individual facilities hold APENS (air emissions) permits, EPA waste generator permits, UST, CWA Section 404 Wetlands Permit and NPDES Storm Water permits, if applicable.

Business Activities:

The USPS is an agency of the federal government designed to provide universal mail service to all Americans.

Approximate Number of Employees:

The USPS employees approximately 5,000 within the State of Colorado.

USPS Environmental Management System (EMS)

The USPS EMS is an integration of the basic requirements set forth in the International Organization for Standardization (ISO) standard 14001, *Environmental Management Systems – Specification with Guidance for Use*, and other recognized EMS specifications within the Postal Service's *CustomerPerfect!* Business management process. *CustomerPerfect!* follows an annual cycle of continuous improvement to meet the needs of our customers. Paralleling *CustomerPerfect!*, the USPS EMS embodies five principal phases called areas. These areas are: policy, planning, implementation and operation, checking and corrective action, and management review. A complete description of the USPS EMS is attached as Appendix A. This EMS policy is relatively new to the USPS and may not yet be integrated throughout every USPS facility, but defines a new direction in USPS compliance strategy.

The USPS also uses independent external audits to assure compliance with environmental laws and regulations. In 1999, EPA's Federal Facilities Enforcement Office performed an Environmental Management Review (EMR) at the Denver Vehicle Maintenance Facility. The purpose of an EMR is to promote federal sector environmental leadership by conducting multimedia audits and providing technical advice to ensure cost effective and timely compliance with applicable requirements. A copy of EPA's EMR interim final policy and guidance is attached as Appendix B.

USPS Environmental Compliance Review (ECR) Program

EPA issued a formal Environmental Auditing Policy Statement (51 FR 25004, 7/9/86) that encourages all regulated entities, including federal agencies, to adopt environmental quality assurance review programs. The ultimate goal of this EPA strategy is to ensure that federal agencies achieve compliance rates in all applicable environmental programs that meet or exceed compliance rates of major industrial and municipal facilities. USPS policy requires a comprehensive and continuous environmental compliance quality assurance program to be deployed and implemented to ensure compliance with all laws and regulations.

EPA also released a policy statement on December 18, 1995, which provides incentives for regulated entities to conduct voluntary environmental compliance corrective actions. As a matter of USPS policy, when compliance deficiencies are noted as a result of the ECR process, changes must be implemented in a timely, cost-effective, environmentally sound, and organizationally suitable manner.

A formal USPS Environmental Compliance Review Policy was issued on June 20, 1996. The latest Management Instruction, dated March 1, 1999, is attached as Appendix C. In addition to establishing a program of reviewing the environmental

compliance status of USPS facilities, the ECR program is utilized to accomplish the following:

- Track identified regulatory deficiencies
- Monitor the implementation of corrective actions
- Measure regulatory and policy compliance progress
- Provide a communications and training plan that supports ECR program goals
- Prioritize facilities to be reviewed
- Establish a national information management system to monitor ECR program performance
- Conduct trend analyses regarding regulatory deficiencies and distribution of common findings
- Conduct an annual review of the ECR program and follow a cycle of continuous improvement

The USPS Western Area Environmental Office has produced an ECR implementation plan. A copy of this written program is attached as Appendix D.

USPS Pollution Prevention Program and P2 Plan Builder

The USPS Pollution Prevention (P2) Program policy was issued on August 15, 1991. The program consists of two phases - recycling and source reduction. A source reduction policy was issued on February 2, 1992. USPS national P2 strategic goals include:

- Virtually eliminate the generation of hazardous waste by 1998, where feasible
- Virtually eliminate the use of the 17 targeted chemicals identified in EPA's 33/50 program by 1998, where feasible
- Continue and expand the ongoing program to evaluate and use non-hazardous chemicals
- Continue and expand the use of innovative technologies for waste minimization and where pollution prevention options do not yet exist
- Continue and expand reuse and recycling of all remaining waste streams, where opportunities exist.

The USPS corporate pollution prevention management guide is included as Appendix E.

The USPS Western Area Plan Builder was created to facilitate the production of facility-specific environmental compliance plans. The pilot program for the Plan Builder was the P2 Plan Builder. It uses Internet-based forms to gather information from facility P2 Leaders and prepare a facility-specific plan. The Plan Builder system tracks individual facility progress in source reduction as well as overall total usage. The Plan Builder also maintains a database of Best Management Practices (BMPs) that have been included in facility plans. P2 Leaders can browse the database for P2 project ideas for their own P2 plan. New BMPs are added automatically to the database for future use. A brochure describing the features of the Plan Builder is included as Appendix F.

A total of five P2 plans have been produced for USPS facilities within the Denver metropolitan area. A representative P2 Plan from the Denver Bulk Mail Center (BMC) is included as Appendix G. Implementation schedules and numeric goals for P2 projects selected from (or added to) the BMP database are included as section 3.7 of the P2 plan.

Appendix A - USPS Environmental Management System

Appendix B - EPA EMR Interim Final Policy and Guidance

Appendix C - USPS ECR Management Instruction

Appendix D - USPS Western Area ECR Implementation Plan

Appendix E - USPS Pollution Prevention Management Guide

Appendix F - USPS Western Area P2 Plan Builder Brochure

Appendix G - Denver Bulk Mail Center P2 Plan