



# Mobile Fueling of On-Road Vehicles

## Final Report

---

January 1999  
Publication Number 99-02-WQ

 *Printed on Recycled Paper*

## Table of Contents

<i>Executive Summary</i> .....	1
<i>Background</i> .....	1
<i>Introduction</i> .....	2
<i>Existing Regulatory Requirements for Fixed Base Fueling</i> .....	2
<i>Existing Regulatory Requirements for Mobile Fueling</i> .....	3
<i>Local Fire Department Regulations for Mobile Fueling</i> .....	4
<i>City of Tacoma Fire Department Proposal</i> .....	5
<i>Spill Reporting Requirements</i> .....	5
<i>Scope of Department of Ecology Study</i> .....	6
<i>Work Group Members and Activities</i> .....	6
<i>Survey of Mobile Fuelers</i> .....	7
<i>Site Visits</i> .....	8
<i>Summary</i> .....	9
<i>Recommendations</i> .....	10
<i>APPENDIX 1</i> .....	12

# Mobile Fueling of On-Road Vehicles

January 1999

## Executive Summary

---

This study of mobile fueling of on-road vehicles was performed by the Department of Ecology with assistance from representatives of the fueling industry who have an interest in or a concern about mobile fueling practices. A survey form was developed for this project and sent to all licensed fuel distributors in the state. The key elements of this study were the data received from the completed survey forms and the follow-up visits with those fuel distributors who agreed to Ecology observing their fueling practices.

Although not all those fuel distributors who do on-road mobile fueling in the state of Washington chose to submit completed survey forms, enough information was gathered to learn that there is a significant amount of diesel fuel being mobile-fueled to on-road vehicles. Information from 16 completed survey forms showed that nearly one million gallons of diesel fuel is being mobile fueled per month, and that a high percentage of the mobile fueling in the state is occurring in the Puget Sound area.

This report recommends that mobile fueling of on-road vehicles be allowed to continue in the state of Washington and that the Department of Ecology develop best management practices for stormwater management for prevention of pollution of surface and ground waters.

## Background

---

Mobile fueling, also known as fleet fueling, wet fueling, or wet hosing, is the practice of filling fuel tanks of vehicles from tank trucks, where the tank trucks are driven to the yards or sites where the vehicles to be fueled are kept when they are not in use. Mobile fueling is only done using diesel fuel, as mobile fueling of gasoline is prohibited. Diesel fuel is considered as a Class II Combustible Liquid, whereas gasoline is considered as a Flammable Liquid.

Historically mobile fueling has been done for off-road vehicles that are operated for extended periods of time in remote areas and for vehicles that are not typically operated on roads. Mobile fueling is done on construction sites, logging operations, and farms, and is essentially the same practice as that followed for many years in delivery of heating oil for homes or businesses.

Mobile fueling of on-road vehicles has been done in the state of Washington in unknown amounts since the early 1980's and possibly before that. It is believed that the total numbers of gallons of diesel used for mobile fueling of on-road vehicles has historically been significantly less than the amount for off-road vehicles, however, since these amounts are not known, there is no way to substantiate this belief.

Mobile fueling of on-road vehicles contrasts with the more widespread practice of driving on-road vehicles to fixed-base fueling stations, such as truck stops, cardlock stations, or facilities owned by a fleet owner where fuel is stored and dispensed from an on-site fixed location facility.

## **Introduction**

---

Grenley Stewart Resources, Inc. of Tacoma, Washington, retained Landau Associates to compare the environmental regulatory requirements that currently apply to "wet fueling" operations with those that apply to fixed based fueling operations and to evaluate whether there is a significant difference in environmental risk posed by the two types of operations. This resulted in the report entitled "Environmental Comparison of Fixed Base Fueling and Wet Fueling," completed by Landau Associates in January 1998. Some material contained in the Landau report was used in the preparation of this report.

Ecology Director Tom Fitzsimmons confirmed in a letter dated February 17, 1998 to Grenley Stewart, that the Department of Ecology would conduct a study to further understand the practice of mobile fueling of on-road vehicles and to assess the need for additional environmental protection where mobile fueling is being performed. This letter indicated that additional means of environmental protection could be addressed through the establishment of Best Management Practices (BMPs) for mobile fueling as an element of the Water Quality Program's Stormwater Technical Manual. Any BMPs determined to be appropriate for mobile fueling would then be incorporated into the scheduled update of the Stormwater Technical Manual.

The existing "Stormwater Management Manual for the Puget Sound Basin" (Stormwater Manual) dated February, 1992, identifies BMPs which are applicable only for the Puget Sound area for fueling done on-site, assuming fixed fuel dispensing facilities. No BMPs are identified in this Stormwater Manual for mobile fueling.

## **Existing Regulatory Requirements for Fixed Base Fueling**

---

Fixed base fueling stations are subject to state and local environmental and safety requirements, including underground storage tank regulations, stormwater management requirements, and fire code requirements.

The underground storage tank regulations are administered by the Department of Ecology and are contained in Chapter 173-360 WAC. These environmentally based regulations include provisions related to design, installation, and operation of underground storage tanks. A key provision in these regulations requires that all existing underground storage tanks must be upgraded by December 22, 1998.

Stormwater management requirements are established and administered by local governments based on guidance provided by the Department of Ecology. The requirements for facilities in the Puget Sound

area are based on the "Best Management Practices"(BMPs) in the Stormwater Manual. This technical manual was written specifically for the Puget Sound area, but it is often used as guidance by local governments in the remainder of the state. The requirements applicable to fixed base fueling are related to Liquid Storage in Above-Ground Tanks. This manual is currently being updated and expanded to be applicable statewide, with a scheduled completion date of June 30, 1999.

Fire code requirements are safety-related and are administered by local fire marshals, and as such, vary between jurisdictions. All local jurisdictions use the Uniform Fire Code (UFC) and the Washington State amendments to the UFC as the basis for their local fire codes.

## **Existing Regulatory Requirements for Mobile Fueling**

---

The underground storage tank and stormwater management requirements described above apply to fixed-base fueling and are not applicable to mobile fueling.

Both mobile fueling and fixed base fueling practices must comply with the provisions of Chapter 90.48 RCW Water Pollution Control, Chapter 173-200 Ground Water Quality Standards, and Chapter 173-201A Surface Water Quality Standards. The BMPs in the Stormwater Manual provide guidance for local governments on how this can be accomplished in particular for fixed base fueling, but this guidance is currently lacking for mobile fueling.

Ecology has been delegated authority to administer the federal National Pollution Discharge Elimination System (NPDES) permit program. Under this authority and under state statute, Ecology has adopted General Permits regulating stormwater discharges associated with industrial activities, including construction sites.

Under the industrial general permit, most industries that discharge stormwater associated with industrial activities or storage of raw materials are required to apply for NPDES permits. For those facilities required to obtain coverage under this permit, any on-site fueling practices must comply with applicable BMPs (or equivalent BMPs) in Ecology's Stormwater Manual. At facilities not required to be covered under the NPDES permit, fueling activities are not required to comply with BMPs, but are required to meet water quality standards.

Ecology has legal authority to require permit coverage for any facility or activity that Ecology determines to be a significant contributor of pollutants to waters of the state. This would include facilities discharging pollutants in amounts that are amenable to available and reasonable methods of prevention or treatment, or an amount of pollutant that has a reasonable potential to cause a violation of water quality standards.

Two regulatory programs that are applicable to mobile fueling are the U.S. Department of Transportation (DOT) hazardous material transportation regulations and the UFC, with the Washington State amendments.

The U.S. DOT regulations are contained in 40 CFR 171, 172, 173, 177, and 178, and relate to transportation of hazardous materials (diesel fuel) in tank trucks over the road. These regulations address specific standards for tank car construction, placards and labeling. Periodic vehicle inspections are required and vehicles must have an up to date certification to operate. These regulations also require that drivers be trained in the safe handling of their vehicles and the proper operational procedures for loading and unloading their cargo.

## **Local Fire Department Regulations for Mobile Fueling**

---

The UFC does not specifically address mobile fueling. Minimum criteria for mobile fueling were established as conditions under the Washington State Amendments to the UFC with an effective date of June 30, 1995. These conditions allow the transfer of Class II or III liquids from tank vehicles into the fuel tanks of motor vehicles (mobile fueling) when approved by the fire chief. The fire chief has the authority to prohibit mobile fueling within his area of jurisdiction or allow mobile fueling through the issuance of a permit which meets the following minimum criteria.

### **Mobile Fueling Conditions in Washington State Amendments to the UFC**

1. Only diesel fuel will be allowed and each premises shall require a separate permit issued in accordance with Section 105.
2. Tank vehicles shall meet the requirements of the U. S. Department of Transportation (DOT) and U.F.C. Standard 79-4 and as approved by the chief.
3. The tank vehicle, while in service, shall not be left unattended.
4. A fire extinguisher with a classification of 2A-20BC shall be readily available at the fueling site.
5. There shall be signs stating "NO SMOKING OR OPEN FLAME WITHIN 25 FEET" readily visible at the fueling site.
6. There shall be adequate lighting for night time operation.
7. For other than marine motor vehicles, the fuel hose shall not exceed 50 feet in length.
8. Approved automatic closing nozzles without a latch open device shall be used.
9. Communication devices shall be available in accordance with Section 5201.6.3.
10. Tank vehicles shall have emergency shut off valves as approved by the chief.
11. Dispensing shall be done in accordance with Section 7903.3.3.
12. At least 20 feet from any source of ignition.
13. The applicant shall comply with all applicable federal, state and local environmental laws and regulations as a condition of permit.
14. The private fueling area shall be located on an area graded in a manner to direct the spill away from buildings, storage and property lines.

Local fire marshals are responsible for administering the requirements of the UFC and the Washington State Amendments to the UFC described above. As described above, mobile fueling must be approved by the fire chief and be in accordance with the above provisions. In addition to giving approval to each mobile fueler to operate, Provision No. 1 above also specifies that a separate permit be issued for each premise where mobile fueling is occurring.

Although all local fire marshals have this responsibility, it is apparent that many, particularly smaller, entities may not be following the required approval or permitting process, and may not be aware of the mobile fueling that is occurring within their area of jurisdiction.

The City of Kirkland does not approve permits for mobile fueling within its jurisdiction and has indicated that Seattle, Bellevue, and King County does not allow mobile fueling. The City of Seattle is currently working on developing proposed conditions for mobile fueling, as is the City of Tacoma as described below.

## **City of Tacoma Fire Department Proposal**

---

The City of Tacoma Fire Department is currently undergoing a process to develop conditions for allowing mobile fueling within the City of Tacoma. A public hearing on the city's proposed provisions for allowing mobile fueling was held on November 19, 1998. The Fire Department will review the verbal and written testimony and will make decisions on what provisions should be incorporated into their final decision on this issue. A small group of industry representatives will be invited to participate with the Fire Department in the decision-making process. The estimated date for making this decision by the Tacoma Fire Department is January 1, 1999.

For informational purposes, draft material dated November 2, 1998 from the City of Tacoma's proposal is included as Appendix 1.

## **Spill Reporting Requirements**

---

Reportable spills of diesel during mobile fueling must be reported as spills of hazardous materials. State Dangerous Waste Regulations require the company or person responsible for the spill to report it to the Department of Ecology and take immediate steps to clean it up. Reporting or "notification" is required when the material spilled is a hazardous substance or hazardous waste and both of the following conditions occur:

- It gets into the environment (soils, water, ground water, or air); and
- It poses a threat to human health or the environment.

In addition, state water quality regulations include notification and cleanup requirements if products enter waters of the state.

For additional information on spill reporting requirements, or if there are any doubts as to whether a spill needs to be reported, call the Department of Ecology Spill Response staff at the nearest Ecology Regional Office or the statewide toll-free number operated by the Emergency Management Division at 1-800-258-5990.

## **Scope of Department of Ecology Study**

---

As stated in the Introduction, Ecology has conducted a study of mobile fueling practices in the state of Washington. The following are the key elements included in this study:

- Formation of work group of fueling industry representatives and Ecology staff;
- Meetings and discussions with work group members;
- Development of and distribution of Survey to licensed fuel distributors to collect data on extent of mobile fueling and mobile fueling practices being followed;
- Scheduled visits with mobile fuelers to sites to observe mobile fueling practices;
- Discussions with local fire departments on their requirements; and
- Preparation of a report on the mobile fueling practice in the state of Washington including recommendations concerning environmental issues related to mobile fueling.

## **Work Group Members and Activities**

---

The following fueling industry representatives assisted the Department in this project:

T.K. Bentler	WA Association of Neighborhood Stores
Charlie Brown	WA Oil Marketers Association
Kathy Burns	Ernie's Fuel Stops
Ron Garrow	City of Fife
Rob Grenley	Grenley-Stewart
Mitch Johnson	Boston's Inc.
Bill Stauffacher	Fleet Fueling Coalition of Washington
Greg Stewart	Grenley-Stewart

The following Ecology staff participated in this project:

Jerry Louthain	Water Quality Program
Tony Barrett	Water Quality Program
Stan Ciuba	Water Quality Program
Tim Nord	Toxics Cleanup Program
Barry Rogowski	Toxics Cleanup Program

Meetings of the work group were held on June 5, August 6, October 1, and December 9, 1998. The first meeting was primarily devoted to exchanging information about mobile fueling and determining the scope and approach for the study. The second meeting dealt with the development of the Survey Form and the approach to be used for the survey of licensed fuel distributors. The third meeting was held

following the scheduled date for return of the survey forms to discuss the results of the survey. The final meeting was held to discuss the draft of the report for the project.

Jerry Louthain served as Project Leader and as such was responsible for coordinating the efforts of the work group and taking the lead in the various elements of the project.

## **Survey of Mobile Fuelers**

---

A cover letter and survey form were developed and sent to all Special Fuel Distributors licensed in the state of Washington, from a mailing list provided by the State Department of Licensing. A total of 511 names were included on the mailing list, and the cover letter and survey forms were mailed to the approximately 430 names with addresses from Washington State or adjacent metropolitan areas.

Since one of the purposes of this project was to determine the extent of the mobile fueling practice in the state of Washington, it was necessary to send survey forms to all licensed fuel distributors to determine which of them are involved in mobile fueling of on-road vehicles.

A total of 130 completed survey forms were returned, with the majority indicating they did not do mobile fueling of on-road vehicles. A total of 18 fuel distributors returned completed survey forms indicating that they performed mobile fueling of on-road vehicles. It was determined during a telephone conversation that one of the 18 did not do mobile fueling of on-road vehicles. Another one of 18 did not provide any numbers, stating only that they "varied." For purposes of determining average numbers, therefore, only 16 of the forms were used.

The initial period designated for return of the survey forms was from when they were mailed on August 21, to September 21, 1998. The majority of the returned forms were submitted prior to September 21, but since it was expected that there were still some mobile fuelers who had not sent in completed forms, all forms submitted were accepted. Additional efforts were made by some industry work group members to get additional completed forms submitted, and largely as a result of this effort, 5 of the 18 forms were received after September 21. There is still reason to believe that some of those involved in mobile fueling of on-road vehicles have not submitted survey forms. From an initial listing of 14 mobile fuelers at the beginning of this project, it was determined that currently only 11 are still doing mobile fueling and only 7 of these returned survey forms.

The following is some of the key information from the 16 survey forms that reported quantifiable data on on-road mobile fueling:

- Average monthly total gallons 983,000 gallons/month
- Average yearly total gallons 11,800,000 gallons/year
- Total number of customers using mobile fueling 245 customers
- Average number of vehicles fueled per customer 15 vehicles per customer
- Average frequency of fueling visits per month 13 visits/month

- Average total number of vehicles filled per month 3,675 vehicles filled/month
- Average total number of vehicles fillings per month 47,775 vehicle fillings/month
- Company's average years of experience 19 years experience
- Driver's average years of experience 9 years experience

Of the 16 completed forms that contained data shown above, 12 were from the Puget Sound area. Of the 983,000 gallons/month shown above, only 60,000 gallons/month were not from the Puget Sound area. Based on information from the survey forms completed, it appears that a high percentage of the mobile fueling being done in the state of Washington is being done in Puget Sound area.

Other information learned from the survey forms and from site visits was that approximately 50 percent of the mobile fueling is being done after dark. It was also learned that the majority of the sites where mobile fueling is done are either asphalt surfaces or unpaved, with a very small percentage of the sites having concrete surfaces.

## Site Visits

---

In order to gather information about mobile fueling practices, site visits were scheduled with several mobile fueling companies. Arrangements were made through the contact names provided on the survey forms and a mutually agreeable time was established to meet at the company office. Jerry Louthain made arrangements with the contact person for six mobile fueling companies and conducted the site visits. Site visits in some cases involved first meeting with the contact person, and in all cases, following the truck driver around as he went to the various sites on his route. The majority of the site visits were conducted in late afternoon or after dark, since the standard practice for mobile fueling is to fuel the vehicles at the end of the workday for the vehicle. Site visits for one mobile fueling company were conducted during the day after school buses had completed their routes for the day.

Observations were made of the practices followed by the drivers, type of equipment used, lighting available at the sites, lighting provided by the driver or his vehicle, site conditions where fueling was done, and the type of vehicles being fueled and their fill nozzles.

Some spillage occurred during only one of the mobile fueling operations observed. In this instance the automatic shut-off nozzle failed to function and a small amount (estimated one-half to one gallon) of fuel was spilled on a graveled lot on two separate occasions, as the two vehicles were being fueled. After the first spill the driver wanted to try to fill another vehicle to see what the problem was, and the same result occurred. He did some mopping up of the spilled fuel with absorbent pads after each occasion. The driver then called his office and returned to his office to get another nozzle.

The following general observations were made from the site visits:

- Drivers generally were very conscientious about preventing spillage by placing absorbent pads under or around the nozzle when filling, staying with the vehicle while filling was occurring, holding the nozzle up or laying a absorbent pad under it when not in use, etc.
- Spill containment containers were not used during filling.
- Drivers usually "topped-off" fuel tanks to make sure they were completely full, since customers and their drivers want to start out with a full tank.
- Drivers usually dragged hose between vehicles to avoid frequent moves of the fueling vehicle.
- Many of the sites had little or no lighting. Supplemental lighting for night fueling is needed in virtually all cases, supplied either from the vehicle or by the driver, to have adequate visibility for accessing most fill openings in vehicles.
- Lighting on vehicles was inadequate or non-existent for the majority of the fueling vehicles.
- Lighting used by drivers was generally inadequate especially where access to fill openings was difficult.
- Access is very difficult, and adequate lighting is difficult to achieve for fill openings in some vehicles, particularly smaller vehicles such as school buses and garbage trucks, which have smaller fill openings and are more inaccessible than those on large tanker trucks.
- Sites where fueling occurred were generally secured and within a fenced yard or lot.
- Some sites were unpaved, others were asphalt, and a small percentage were concrete.
- No sites had any provisions for containing spills or directing spills to a catchment area.
- At one site the vehicles filled were inside a warehouse, with the filling vehicle outside.
- At one site some school buses were filled while inside an open-ended bus-barn building
- Mobile fueling vehicles all contain some type of equipment for spills.
- Automatic shut-off nozzles were used in most instances.
- Equipment on fueling vehicles, in most cases, appeared to be in good working order.
- Equipment on fueling vehicles, particularly hoses and nozzles, needs to be maintained and replaced at established intervals to prevent failures.
- Hoses in essentially all cases were in excess of 50 feet.
- In many cases the fueling vehicles had multiple tanks and were used for multiple types of fueling operations at other times.

## Summary

---

From the information provided on the survey forms that were completed, and with the assumption that there are additional mobile fuelers in the state who did not return survey forms, it is apparent that there is a significant amount of diesel fuel being mobile fueled to on-road vehicles. Information from the 16 completed survey forms that contained useful data on mobile fueling showed nearly one million gallons of diesel being mobile fueled per month, or nearly 12 million gallons per year.

A total of approximately 470 million gallons per year of on-highway diesel was used for all types of facilities, fixed or mobile, in the state of Washington in 1996 and 1997, according to 1996 and 1997 reports by the Department of Energy entitled "Fuel Oil and Kerosene Sales"<sup>1</sup>. The approximately 12

million gallons per year as reported in the survey forms is 2 and a half percent of the totals reported each year in these two reports.

For the following reasons, it would appear that the totals from the completed survey forms might not be used as a reasonable estimation of the total amount of mobile fueling being done in the state of Washington:

- Only approximately 30 percent of the survey forms (130 out of 430) were returned.
- Only four percent of the total (17 out of 430), of those surveyed indicated they do mobile fueling.
- Of 11 mobile fuelers known to be operating, only 7 returned completed forms.

However, there are no other data available that can be used to provide an accurate estimation of this total.

Mobile fueling is a business in the state of Washington that appears to be growing and that is driven by customer demand. Many public and private entities seem to want the convenience of having their company vehicles fueled by another company in their lot while the vehicles are not in use, as an alternative to having their drivers or someone in their own company fuel their own vehicles. In addition companies with vehicles that need fueling may not want to make the investment required for installation or upgrading of underground storage tanks.

## **Recommendations**

---

1. The practice of mobile fueling should be allowed to continue in the state of Washington, based on the information gathered in this study, including the investigation of this practice and the proposed conditions to be established by the City of Tacoma Fire Department. Based on the information gathered in this study, environmental risks associated with mobile fueling can be appropriately managed if the recommendations are implemented.
2. Specific environmental guidance should be established for mobile fueling, due to the large volume of fuel being delivered by mobile fuelers and the number of fueling operations conducted.
3. This environmental guidance should be implemented by local governments in conjunction with local fire code requirements and permitting authority for mobile fueling activities.
4. Best management practices (BMPs) for stormwater management for prevention of pollution of surface and ground waters should be developed by the Department of Ecology to address the following:

- Portable, collapsible spill containment containers or absorbent containment pads having sufficient capacity shall be placed under the nozzle and fill opening while filling is occurring.
- Absorbent pads shall be wrapped around the nozzle when filling.
- Automatic shut-off nozzles shall be used.
- Automatic shut-off nozzles shall be replaced as recommended by the manufacturer.
- Equipment on fueling vehicles, particularly hoses and nozzles, needs to be maintained and replaced at established intervals to prevent failures.
- The operator shall not leave the vehicle being filled while it is being filled.
- Remove the fill nozzle and cease filling when the automatic shut-off engages.
- No "topping off".
- Keep absorbent pads under the nozzle and the nozzle facing upwards while it is being transferred between filling vehicle and vehicle being fueled.
- Dragging hoses shall be kept to a minimum.
- Filling nozzles shall not be laid on the ground.
- All fueling vehicles shall have a minimum of these spill clean-up materials:
  1. Non-water absorbents capable of absorbing 16 gallons of diesel;
  2. A storm drain plug kit; and
  3. A containment boom of a minimum 10 feet in length.
- All fueling vehicles shall have an adequate lighting system at the filling point.
- Drivers shall be provided with adequate flashlights or other mobile lighting to view fill openings with poor accessibility.
- Drivers shall have two-way communication with their home base.

<sup>1</sup>Fuel Oil and Kerosene Sales 1996. Energy Information Administration, Department of Energy. Publication No. DOE/EIA-0535(96). August 1997.

Fuel Oil and Kerosene Sales 1997. Energy Information Administration, Department of Energy. Publication No. DOE/EIA-0535(97). August 1998.

**11/2/98**

**City of Tacoma  
Proposed Permitting and Conditions  
For Mobile Fueling**

**Scope:** These requirements pertain to the dispensing of diesel fuel from a cargo tanker to the fuel tank of a motor vehicle.

**Prohibited:**

No permit shall be issued and no operation allowed for the transfer of gasoline or other class I flammable liquid from a cargo tanker to fuel tanks of vehicles.

**Permits:** A permit is required for each business engaged in mobile fueling and for each site where it is to be performed. Each tanker engaged in such activities shall also be licensed by the city of Tacoma under Tacoma Municipal code 6.32 as an oil and gas delivery vehicle and meet the requirements listed below.

**Permit application:**

Site Permit shall include:

- Owner/lessor acknowledgement of fueling operations and liability forms;
- Site plan showing all important buildings, facilities, hazardous materials, parking, lighting, fencing, openings into buildings, and proposed location of fueling;
- Number and type of vehicles proposed to be fueled(two or one saddle tanks); and
- Time frame for fueling(day, evening, night).

Company permit shall include:

- Completed general mobile fueling company form;
- List of all tankers proposed to conduct mobile fueling, their city license number, and proof of compliance with 49 CFR 178 for DOT 406 tanker;
- Signed agreement acknowledging the requirements of mobile fueling in Tacoma.
- List of trained and licensed operators; and
- Proof of insurance or surety bond in the amount of \$\_\_\_\_\_

**I. Mobile Fueling Company Requirements**

1. The fueling company must be able to demonstrate the financial resources necessary to successfully mitigate a spill and the resulting contamination subsequent to a release during a mobile fueling operation. (i.e., proof of insurance or surety bond.)

2. Each Company shall obtain an annual permit which shall verify the company's proof of financial requirements, provide a list of licensed & trained operators, and verify all DOT inspection requirements for tankers performing mobile fueling.

## **II. Mobile Fueling Tanker Requirements**

1. Each tanker shall be licensed by the City of Tacoma under Tacoma Municipal Code 6.32 as an Oil and Gas delivery Vehicle. All required equipment, safety features and devices shall be in full working order at all times.
2. Tankers must comply with all 49 CFR 178 requirements for DOT 406 cargo tanker. Documentation from a DOT Registered Inspector shall be proof of compliance.
3. No gasoline or other class I flammable liquids shall be on the tanker, this includes: compartments regularly containing class I flammables but 'emptied', and the fuel tank providing fuel to the engine of the tanker.
4. The fueling hose shall not exceed 50 feet. [Exception: The fueling hose maybe extended to 75 feet if the nozzle is an approved auto start and stop nozzle, and the operator has on his person at all times a remote emergency shut off device which stops the flow of fuel.]
5. The hose shall be equipped with a listed emergency breakaway device designed to retain liquid on both sides of the breakaway point. The hose shall be free of crimping or defects.
6. The inside diameter of the hose shall not exceed 1 inch. [Exception: the diameter may be 1 ½ inches if the nozzle is an approved auto start and stop nozzle , and the operator has on his person at all times a remote emergency shut off device which stops the flow of fuel.]
7. Tanker shall carry the following clean up supplies at all times: non-water absorbents capable of absorbing a minimum of 25 gallons of petroleum; a storm drain plug kit; and a containment boom of a minimum 12 feet in length. These supplies shall be readily available.
8. The tankers shall have a 'fuel limit switch' limiting the amount of a single fueling operation to the amount of clean-up supplies held on the tanker. The Tanker shall be so equipped that fuel can not be dispensed in quantities larger than the limit set at permitting. [Exception: if the nozzle is an approved auto start and stop nozzle and the operator has on his person at all times a remote emergency shut off device which stops the flow of fuel.]
9. The dispensing nozzle shall be an approved listed electrically controlled nozzle without a latch-open device. The tanker shall not be capable of gravity feeding fuel.
10. The tanker shall have fire extinguishers with a minimum rating of 2A 20BC.
11. The tank vehicle's specific function is that of supplying fuel to motor vehicle fuel tanks.

### **III. Mobile Fueling Operation Requirements**

1. Operator must be trained annually in fire extinguisher training, spill control measures and emergency procedures by the Tacoma Fire Department. Trained in handling and dispensing motor fuels. Trained for fire, leak or spill.
2. The operator must directly notify the Tacoma Fire Department(911) upon any spill not immediately retained by the spill pan and absorbent pad.
3. The tank vehicle must not be left unattended while pump is engaged and/or the nozzle is in a dispensing position.
4. Signs stating “Fueling Operation in progress- No Smoking , Open Flame or Vehicle Traffic with in 25 feet” shall be in placed at access points to and around the tanker and trucks to be fueled.
5. Operators must possess the appropriate Washington State commercial driver’s license to operate vehicles carrying hazardous-materials. (i.e., CDL with Tank Vehicle Endorsement and Hazardous Materials Endorsement).
6. Tanker vehicles when fuelling will be parked directed toward an exit from the facility and, when a grade exists, parked up grade from vehicles being fueled.
7. Operator will place a drip pan under each fueling location prior to and during all dispensing operations. The drip pan will contain an absorbent pad. The pan shall be liquid tight and have a capacity of 5 gallons. Spills retained in the drip pan need not be reported.
8. The operator shall not leave the point of dispensing while fuel is being transferred.
9. The operator shall be capable of communicating a distress signal directly to the fire department
10. There shall be two way communications between the operator and a home base. Communications shall occur, and a log kept of such, at the beginning and end of fueling at each site. The base shall track the location and time of each tankers operations by site. The base shall notify the Tacoma Fire Department to investigate when ever an operator is out of touch for an excessive time period. [Exception: When two persons at directly engaged in the fueling process.]
11. The tank vehicle parking brake and the hazard warning lights shall be activated during fueling operations.

12. Fuel expansion space shall be provided in each motor vehicle tank to prevent overflow. Tanks shall not be topped off.
13. The motor of the tank vehicle and motor vehicle being fueled shall be shut off during fueling operations. [Exception: The motor of the tank vehicle may be operated if it is required to conduct dispensing operations.]

#### **IV. Mobile Fueling Site Requirements**

1. All persons and or parties with an interest in the property(i.e., property owner, lessor, real-estate company, property manager as well as operators of the property) must give permission in writing to allow the mobile fueling to occur on their property. Managers, lessees, renters and other such persons can not solely give this permission. Each such person or party must indicate that they understand the extent of the insurance coverage or ability of the Fueling Company to mitigate any contamination or spills. Documents shall be notarized.
2. Each site shall be permitted annually or when ever operations, ownership or contract is altered.
3. The site will have lighting capable to provide one foot candle of light at all fueling locations or fueling operations will be restricted to day light hours.
4. Each site shall have marked locations where fueling is permitted to occur. This marking shall be made either by signage(on gravel or dirt) and/or blue lines(on pavement). The fire official shall indicate the specific markings during the permit inspection.
5. Locations for fueling shall be:
  - at least 15 feet from all buildings, combustible storage, gas powered vehicles, and Class I, II, or III storage tanks. The distance to storage tanks can be eliminated if the tanks are tested and labeled as two-hour protected tank assemblies.
  - At least 25 feet from building openings, property lines, streets, alleys or public ways and any unblockable vehicle traffic and or any source of ignition.
  - On ground sloped away from buildings, storage and property lines. [Exception: Ground can be sloped toward such facility features if a permanently approved barrier is located to prevent large spills from reaching within 15 feet of them.]
  - The ground will be protected by continuous pavement(cement or asphalt) which is in good repair. [Exception: If tankers are fitted with an approved automatic start and stop nozzle and remote auto shut-off is carried on operator.]
6. The property must be located in a geographic area zoned to allow vehicle fuel dispensing stations. Properties zoned residential districts and planned development districts are prohibited.

7. Public access to site must be restricted by remoteness of the property or fenced to prevent access.
8. No unusual exposures which could increase risk of incident (ammonia nitrate storage, chemical potential, etc.).
9. Site applicants located in the South Tacoma Groundwater Protection District must demonstrate they have approval from the Pierce County Health Department.

-----

**Definitions:**

**Auto start and stop nozzle:** The dispensing nozzle is not capable of dispensing fuel unless the nozzle is in contact with the fuel opening of the motor vehicle. The nozzle can not dispense fuel until it has entered the fuel opening of the motor vehicle fuel tank. The nozzle will automatically stop dispensing when it is removed from the fuel opening prior to fully extracting the nozzle from the opening.

**Storm drain plug kit:** Shall include: \_\_\_\_\_

**Fuel limit switch:** A mechanism located on the cargo tanker which limits the quantity of fuel dispensed at one time.

**Remote Emergency Shut off device:** A device capable of halting the pumping of fuel from a distance of at least 100 feet. This device shall not be affixed to the tank vehicle.