

## Attachment A

# Fuel Management System Specifications

### General Requirements

The system manufacturer must have a minimum of **five (5)** years' experience in the design and manufacture of fuel management equipment. The proposed system must conform to ISO 9001:2000 standards for quality management and be UL and cUL approved. The system must be expandable to add more fuel sites, vehicles, and drivers. The system shall be compatible with HCTC's Gasboy TopKAT PLUS system and be capable of interfacing with the agency's maintenance software.

### Fueling Procedure

The system shall allow manual fueling using a contactless MIFARE tag or MIFARE card, or equal, and/or magnetic stripe card and a keypad for an alternate method of manual entry. The system must allow a flexible, two-stage authorization process that identifies both the vehicle and the driver prior to refueling.

### Site Controller

The site controller shall be a stand-alone unit that includes the central processing unit, display panel, two hose mechanical or eight hose electronic pump control module, communication modules, and optional receipt printer. The site controller shall be web enabled to allow independent real-time control, monitoring and reporting.

The site controller shall control up to 2 mechanical hoses or, if programmed, 8 electronic Gasboy 9800 Series hoses in one terminal. It must be compatible with all configurations of the 9800 Electronic Series Gasboy. The site controller must also shall store up to 25,000 transactions and 50,000 vehicles/devices with the ability to set limitations and restrictions, and be available for refueling 24/7. The site controller must be able to work in online and off-line modes, in case of communication failures, and automatically synchronize data when communication is established.

The site controller shall have a high level data protection and multiple back-up mechanisms. It must also have secured, remote capabilities for monitoring, management and maintenance activities. It must be flexible and able to accommodate all types of communication protocols. It must also have a tank level sensing interface for leak detection, inventory shifts, and alarms for water levels, temperature, leaks and overfills.

The pedestal shall be a slim (9.5"x9.5"x61") powder coated metal designed for easy installation and service and tested to withstand oil, fuel, sun, water and salt.

The site controller system shall be based on web server technology and enable easy secured (SSL) remote access through the network using a standard PC with an internet browser, without the need for any other software applications.

The system shall have the option to collect data from driver before refueling, such as: PIN, odometer, vehicle ID, etc., provide odometer reasonability checks, allow the possibility to work offline with all limits and restrictions, and have the option to approve or decline refueling according to pre-defined limits and restrictions.

### Limits and Restrictions

Host software shall allow limits and restrictions to be configured either by an authorized user or imported from a different external system. Customizable vehicle and driver limits and restrictions shall include:

- Limit of daily, weekly and monthly refueling volume in gallons as well as in currency.
- Enable or disable vehicle refueling on specific days and/or specific times during a day.
- Limit the maximum refueling sessions for a specific vehicle per transaction, per day, week or month.
- Block specific stations for a specific vehicle (if vehicle is restricted for operation in a specific zone).
- Restrict specific fuel types for refueling of a specific vehicle

### **Generate Reports**

The system shall be about to generate built-in, fuel management system reports and custom reports.

Custom report features shall be highly flexible. Data elements can be selected and put in any order by the user to create their own custom report. Reports shall have the ability to be saved as a template for later use.

Custom report tables shall have the following field names:

Station, Date, Time, Fleet, Transaction Type, Vehicle #, Product, Quantity, Total Sale, Receipt No., Fleet Code, Pay Mode, Transaction Id, Authorized By, Department, PPV, Odometer, Engine Hour, Pump, Tank, Nozzle, Density, Temperature, Vehicle Type, Ref/Slip No., Driver name, Dept. code, Card number, Device name.

The custom report shall allow summary by the following fields:

Date, Plate, Pump, Product, Pay Mode, Station name, Fleet code, Authorized by, driver name, Dept. code, or a selection of any of the above fields

The custom reports shall allow sorting by the following fields:

Date & Time (Ascending/Descending), Pump, Transaction ID, Product, Amount (Ascending/Descending), Quantity, Plate, Pay mode, Station name, Fleet code, Receipt ID, Driver name, or Dept. code.

### **Warranty**

The system must have a 12 month warranty on parts and labor and a 5 year warranty for the MIFARE cards, or equal.