ENV SOP 5 – TRANSFER OF DIESEL FUEL

Purpose

The purpose of these procedures is to document the tasks and responsibilities related to the transfer of diesel Fuel on QEC properties to ensure they are handled in a manner which minimizes the potential for spills, leaks and environmental damage.

Scope

This procedure applies to the proper transfer of diesel fuel to and from bulk storage systems throughout QEC (operational areas, plants, bulk fuel storage areas). There are two distinct procedures; one to handle transfers from tank to tank and another to handle transfers from truck to tank.

Tank to Tank Fuel Transfer Procedures

Details of the Procedure

Responsibility	Task
Plant Superintendent Operators/ Assistants	Employees shall carry radio communication equipment that is fully operational and be in communication with each other during the transfer.
Plant Superintendent Operators/ Assistants	Ensure both tank (dead storage and live tank) vents are fully opened. ***Live tank is the tank being filled***
Plant Superintendent Operators/ Assistants	Take opening dip reading from the live tank and record them first on paper then using the appropriate electronic tank dip sheet form. The tank dip sheet header names the Plant #, the tank #, and whether it is horizontal or vertical.
Plant Superintendent Operators/ Assistants	For each dip use 1 line on the form. Enter the date, the time, the temperature and the dip reading in meters. Save the form by clicking “Save as” and save it in the Tank Dips folder on your desktop. **Please see page 5 for the form use details.**
Plant Superintendent Operators/ Assistants	Determine the amount of fuel in the live tank and how much fuel is required for a proper fill.
Plant Superintendent Operators/ Assistants	Open the fill valve to the live tank.

Responsibility	Task
Plant Superintendent Operators/ Assistants	Walk the above ground fuel pipe line (in winter it may be buried in snow) between the tank farm and the live tank and check for leaks.
Plant Superintendent Operators/ Assistants	Inspect the pump house for leaks
Plant Superintendent Operators/ Assistants	Dip the tank from which the fuel will be pumped – record tank number and readings again using the appropriate electronic tank dip form.
Plant Superintendent Operators/ Assistants	Station one employee at the pump house and one at the live tank
Plant Superintendent Operators/ Assistants	Open valves at the tank farm and pumping station and proceed to pump
Plant Superintendent Operators/ Assistants	Never leave your station during fuel transfer procedures. If you have to, stop pumping and shut the valves off accordingly.
Plant Superintendent Operators/ Assistants	Dip each tank every hour and record readings.
Plant Superintendent Operators/ Assistants	Should the high level alarm sound at the live tank, or it be filled to within 18”, stop the pump.
Plant Superintendent Operators/ Assistants	Shut off the valve at the pump house to the live tank.
Plant Superintendent Operators/ Assistants	Shut off the valve to the tank farm at the pump(s).
Plant Superintendent Operators/ Assistants	Shut off the valve at the tank farm tank.
Plant Superintendent Operators/ Assistants	Dip the tank farm tank and record the readings.
Plant Superintendent Operators/ Assistants	Dip the live tank and record the readings.
Plant Superintendent Operators/ Assistants	Ensure the dip hatches on both tanks are closed.
Plant Superintendent Operators/ Assistants	Walk the above ground pipeline. Check for leaks and check all valve positions.
Plant Superintendent Operators/ Assistants	Submit opening and closing dip reading to the Area Supervisor. Ensure the EC-00000xxx number of your fuel system is recorded on all documentation.
Plant Superintendent Operators/ Assistants	**If possible, have a third person with radio communication walking the above ground fuel line during the fuel transfer to observe any leaks while the line is pressurized**

Responsibility	Task
Important*	**It is a requirement to be in constant attendance to the transfer equipment at all times**

Truck to Tank Fuel Transfer Procedures

Responsibility	Task
Plant Superintendent Operators/ Assistants	Walk the line from the truck fill point to the open fill valve at the tank.
Plant Superintendent Operators/ Assistants	Ensure the valve at the fill point is closed; open the fill valve at the tank.
Plant Superintendent Operators/ Assistants	Inspect the tank vent line, ensure there are no blockages.
Plant Superintendent Operators/ Assistants	Check that the drip tray under the truck fill connection is fully drained and empty.
Plant Superintendent Operators/ Assistants	Take opening dip reading from the live tank and record them first on paper then using the appropriate electronic tank dip sheet form. The tank dip sheet header names the Plant #, the tank #, and whether it is horizontal or vertical.
Plant Superintendent Operators/ Assistants	For each dip use 1 line on the form. Enter the date, the time, the temperature and the dip reading in meters. Save the form by clicking “Save as” and save it in the Tank Dips folder on your desktop. **Please see page 5 for the form use details.**
Plant Superintendent Operators/ Assistants	Determine the amount of fuel in the tank and the amount required to fill it.
Plant Superintendent Operators/ Assistants	Ensure that the truck static line is properly connected to the fill point piping
Plant Superintendent Operators/ Assistants	Ensure that the hose is properly connected to the truck fill point and locked. The truck fill point and hose connection shall be of the Camlock ‘Quick Coupling’ type with a dry disconnect
Note	***It is illegal to truck fill the storage tank from the top of the tank due to potential static electricity hazards***
Plant Superintendent Operators/ Assistants	Establish visual communication signals by hand with the driver for the start and stop of the pump and make sure you understand each other.
Plant Superintendent Operators/ Assistants	Open the fill valve at the truck fill point.

Responsibility	Task
Plant Superintendent Operators/ Assistants	Authorize the truck driver to start pumping.
Plant Superintendent Operators/ Assistants	During the pumping stage, walk the line to determine if there are any leaks in the filling system under pressure.
Plant Superintendent Operators/ Assistants	Be in constant communication with the truck driver either visually or by radio at all times
Plant Superintendent Operators/ Assistants	Ensure that the tank is filled not more than 18" from the tank top to allow for volume expansion, or until the high level alarm is sounded if the tank is so equipped
Plant Superintendent Operators/ Assistants	Signal the truck driver to stop pumping
Plant Superintendent Operators/ Assistants	Shut off the truck fill point valve and the tank fill valve. .
Plant Superintendent Operators/ Assistants	Ensure the EC-00000xxx number of your fuel system is recorded on all documentation including the fuel delivery slip. Sign the fuel delivery slip for the fuel received and obtain a copy.
Plant Superintendent Operators/ Assistants	Remove the static line.
Plant Superintendent Operators/ Assistants	Empty the drip tray and clean it out.
Plant Superintendent Operators/ Assistants	Dip the fuel and record (closing)
Plant Superintendent Operators/ Assistants	Close the gauging hatch.
Plant Superintendent Operators/ Assistants	Carry out the final inspection of the tank and the fuel pipe line. Ensure the proper valves are open and closed.
Important*	**It is a requirement to be in constant attendance to the transfer equipment at all times**

Horizontal and Vertical Dip Form Use

You have a folder on your desktop called **"501 Tank Dips"** with your plant # in place of the 501 of course.

Open it and you will see 1 or more Excel sheets for your tanks. The sheets are named 501-1, 604-1, 701-1 and so on depending on your plant number and the tank number.

Double click on the tank you dipped and the form will open.

1. Each dip will use 1 line. Type the date at the first cell in the first line. The format is “3-Feb-11”.

2. Next type the time the dip was taken. The format is “5:32 PM”

3. Next type the temperature in Celsius. The format is “-34” the form will automatically calculate and record the temperature conversion.

4. Finally type the dip reading in meters. If you were recording the readings in millimetres before now then you must remember to simply move the decimal place back 3 digits. (eg. 1756 mm now becomes 1.756 m)

When the dips are all entered then save the sheet by clicking the  button at the top left and choosing “Save as” “Excel Workbook” and rename the sheet by date like this “501 Dip 3Feb11”. The sheet is now saved in the 501 Tank Dips folder. The sheets can be emailed to your supervisor.