Australian Government
Department of Industry, Science and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Supplementary Certificate of Approval

NMI S852

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

Hoodoo Cloud Software Control System for Fuel Dispensers for Motor Vehicles

submitted by Hoodoo Cloud Software Limited
Suite 201, Mungo Scott Building
18 Flour Mill Way
Summer Hill NSW 2130

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 117, *Measuring Systems for Liquids Other than Water*, dated June 2011.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern provisionally approved – certificate issued	13/11/23

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S852' and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.

Darryl Hines
Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No S852

1. Description of Pattern approved on 13/11/23

A Hoodoo Cloud Software control system (Figure 1) to provide unattended self-service facility for compatible (#) NMI-approved fuel dispensers for motor vehicles.

The fuel dispensers are controlled by the Hoodoo Site Agent through the Integration Technologies Enabler flowmeter controller (as described in approval NMI S518). Authorisation by registered customers who have an existing arrangement with the supplier only. Transactions are authorised using the customer's account using the Hoodoo Cloud Software App (Figure 2).

1.1 Key Features

- The system is approved for environmental class N, a climate-controlled environment between -10°C and 55°C.
- The system can provide an unattended self-serve arrangement for compatible (#) NMI-approved fuel dispensers.
- The system allows post-payment or pre-payment deliveries; in the latter case the fuel dispenser must incorporate a pre-set device.
- The system may facilitate mixed-mode operation. An NMI approved control system that is approved for attended self-service operation must be interfaced to the Hoodoo Cloud Software App control system for operation in this mode.

(#) 'Compatible' is defined to mean that no additions/changes to hardware/software are required for satisfactory operation of the complete system. The NMI-approved fuel dispenser must be originally manufactured with provision to accept the fitting of a card-operated terminal.

1.2 System Description

(i) Hoodoo Site Agent

The Hoodoo Site agent operates on a PC-based device operating on a windows-based operating system and provides the interface and data transmission between the fuel dispensers through the ITL Enabler Forecourt controller and the Hoodoo Application Server (Figure 1). The Hoodoo Site Agent operates version 2.0.0 software.

(i) Hoodoo Application Server

The Hoodoo Application Server operates on a remote cloud service server and provides a database and communication interface between the Hoodoo Site agent located at the local site and the Hoodoo Cloud Software app running on a registered customers device.

The server communicates with the Hoodoo Site Agent and the Hoodoo Cloud Software app through a secure HTTP internet connection.

The Hoodoo Application server operates version 1.x.x software

The Hoodoo Application server controller synchronises measurement data and transaction records to be accessed by the customer through the Hoodoo Cloud Software App or the Hoodoo Cloud Software Nova/OfferScape portal.

(ii) Hoodoo Cloud Software App

The Hoodoo Cloud Software App is used to interact with the software operating on the Hoodoo Application Sever and Hoodoo Site Agent connected to the approved fuel dispensers.

The Hoodoo Cloud Software App operates on compatible Android or iOS based operating systems.

The Hoodoo Cloud Software App provides:

- method of the customer to control authorisation and delivery of fuel from a nearby fuel dispenser.
- means to receive the details of the transaction.
- a method for storage or export of an electronic transaction record.

The Hoodoo Cloud Software App operates software version 1.x.x.

(iii) Hoodoo Cloud Software Nova/OfferScape portal

The Hoodoo Cloud Software Nova/OfferScape portal (Figure 3) is used to view measurement data and transaction records that have been recorded by the Hoodoo Cloud Software App software on the Hoodoo Cloud Software Site Agent.

The Hoodoo Cloud Software Nova/OfferScape portal is a webpage that can be accessed by any internet enabled device with a compatible web browser and secure credentials.

(iv) Primary Indications

Note: There is no operator or customer display or receipt printer connected to the Hoodoo Site Agent controller. No printed receipt is provided.

The storage of transaction records (Figure 4) on the Hoodoo Application Server and accessed through the Hoodoo Cloud Software app or Hoodoo Cloud Software Nova/OfferSCape portal are considered to be a volume totaliser for each registered customer.

1.3 Checking Facilities

(i) Power Supply

The Hoodoo Site Agent system includes a power supply with battery backup. If an error or power failure is detected the system will terminate any deliveries in progress and provide a receipt for the transaction in progress.

The ability to authorise further transactions will be prevented until the detected error condition is resolved.

(ii) Memory device

The system allocates and stores measurement transaction data to the Hoodoo Application Server. If an error is detected the ability to authorise further transactions will be prevented until the error condition is resolved.

While the system is online the transaction data stored in local memory is synchronised to an online database. Transactions that have been uploaded successfully may then be overwritten in local memory.

1.4 Sealing Provision

The Hoodoo Cloud Software control system does not require sealing.

1.5 Descriptive Markings

The Hoodoo Site Agent is marked with the following data, in one location:

Manufacturer's name or mark	……
Pattern approval mark	NMI S852
Model number	……
Serial number	……
Environmental class	N

2. Description of Variant 1 approved on 13/11/23

With the Hoodoo Site agent connecting to fuel dispensers through any other compatible (#) NMI approved flowmeter controllers, including:

- Gilbarco POSTEC model PCC4 controller as described in approval NMI S398
- Wayne Fueling Systems model Fusion 6000 as described in approval NMI S730
- Gilbaro DOMs model PSS5000 controller as described in approval NMI S748
- Invenco C1-100 flowmeter controller as described in approval NMI 821

(#) 'Compatible' is defined to mean that no additions/changes to hardware/software are required for satisfactory operation of the complete system. The NMI-approved fuel dispenser must be originally manufactured with provision to accept the fitting of a card-operated terminal.

TEST PROCEDURE

Instruments shall be tested in conjunction with any tests specified in the approval documentation for the instruments (fuel dispensers) to which the pattern is connected, as appropriate, and in accordance with any relevant tests specified in the National Instrument Test Procedures.

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

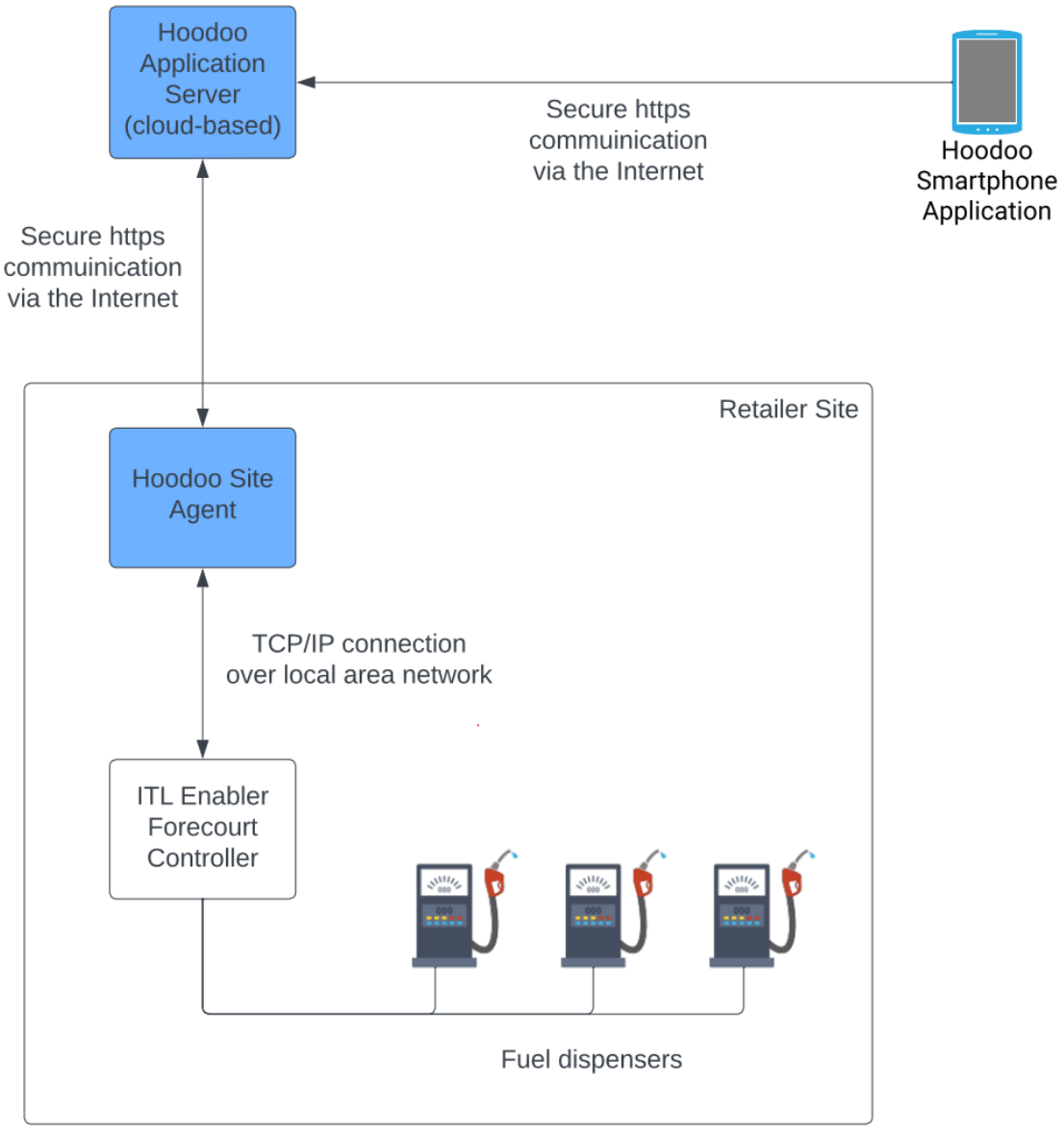
The maximum permissible errors applicable are those applicable to the fuel dispenser to which the instrument approved herein is fitted.

Note: Testing should be carried out on initial installation. Thereafter, it need not be done at every verification/certification of the fuel dispensers but may be done periodically at the discretion of the verifying authority. Operation with an authorised Hoodoo Cloud Software App test application can be done in the presence of a representative of the submittor.

The Hoodoo Cloud Software App shall be tested as follows:

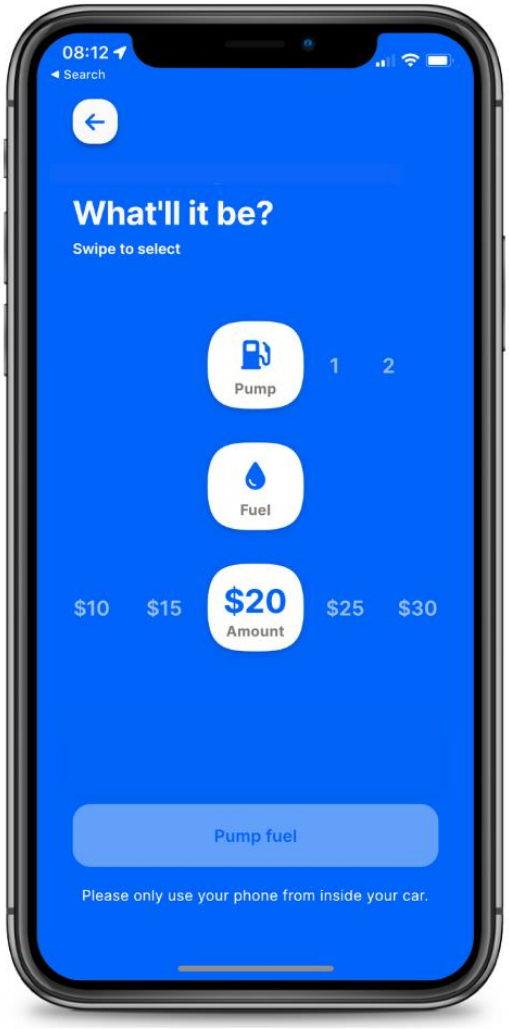
1. Check that the system identifies, displays the correct data for the corresponding number allocated to the fuel dispenser.
2. Authorise a delivery and check that the delivery details on the fuel dispenser agree with the details using the Hoodoo Cloud Software App.

FIGURE S852 – 1



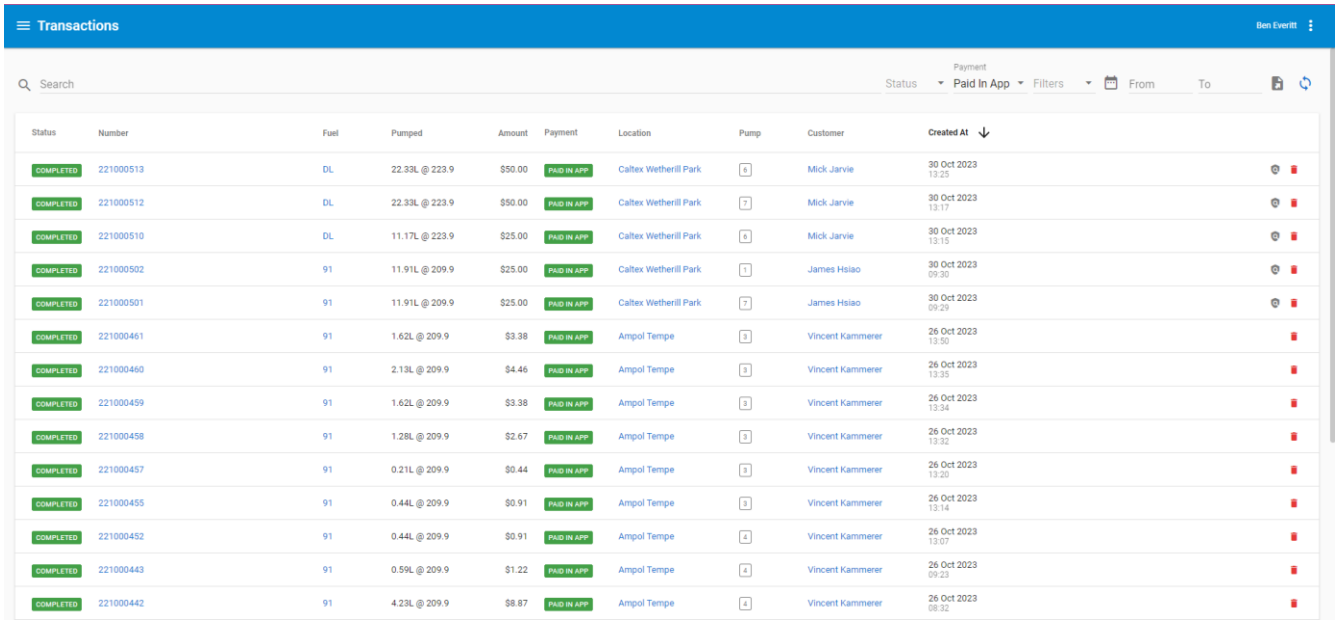
Hoodoo Cloud Control System Layout

FIGURE S852 – 2



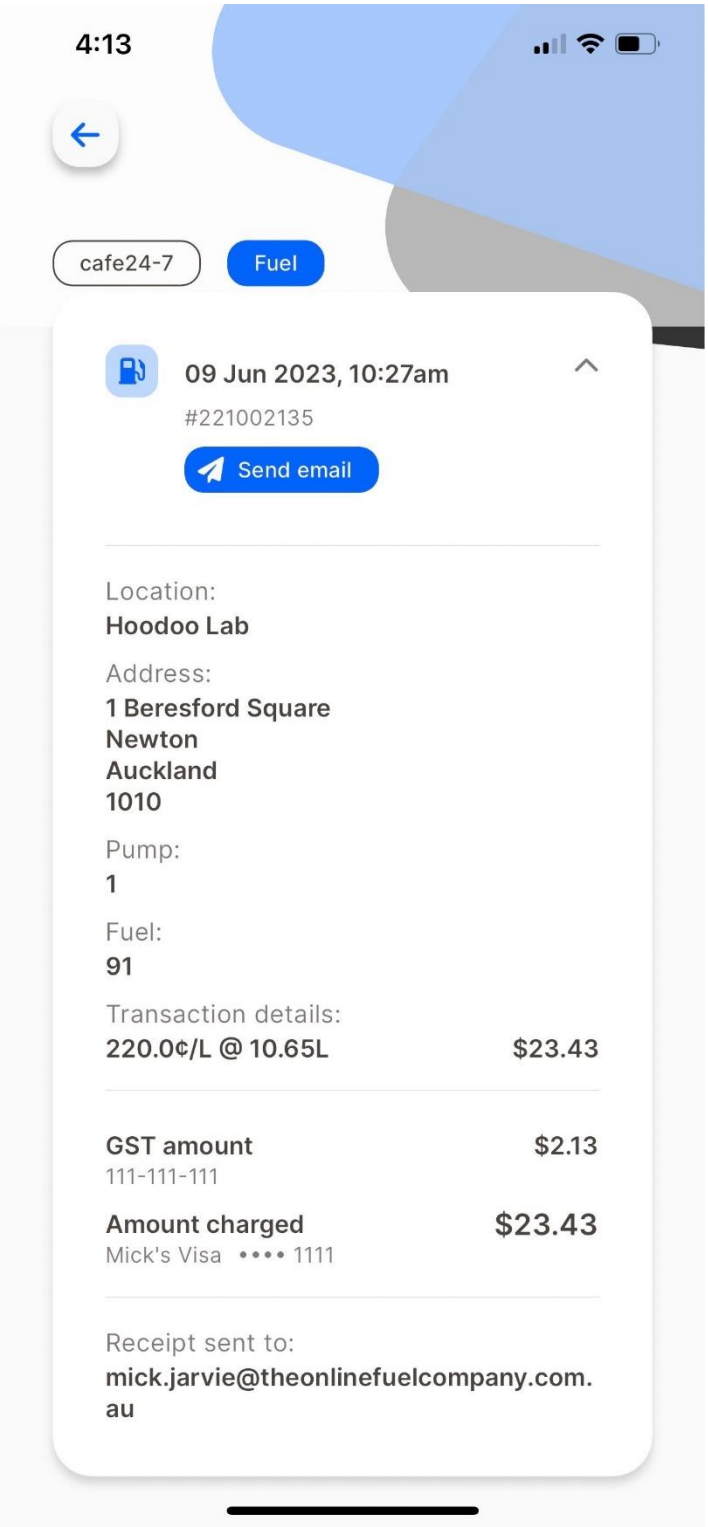
Hoodoo Cloud Software App smart phone application

FIGURE S852 – 3



Hoodoo Cloud Software Nova/OfferScape portal dashboard

FIGURE S852 – 4



Typical transaction record available in Hoodoo Cloud Software App

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