State of California
AIR RESOURCES BOARD

Executive Order G-70-147-A

Certification of the
New United Motors Manufacturing, Incorporated
Phase II Vapor Recovery System at the
Fremont, California Assembly Plant

WHEREAS, the Air Resources Board (the "Board") has established, pursuant to California Health and Safety Code Sections 39600, 39601 and 41954, certification procedures for systems designed to control gasoline vapor emissions from motor vehicle fueling operations ("Phase II vapor recovery systems") in its "Certification Procedures for Gasoline Vapor Recovery Systems at Service Stations", amended December 4, 1981 (the "Certification Procedures"), and incorporated by reference in Title 17, California Code of Regulations, Section 94001;

WHEREAS, the Board has established, pursuant to California Health and Safety Code Sections 39600, 39601, and 41954, test procedures to determine compliance of Phase I and Phase II vapor recovery systems with emission standards in its "Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Service Stations", amended September 1, 1982 (the "Test Procedures"), incorporated by reference in Title 17, California Code of Regulations, Section 94000;

WHEREAS, New United Motor Manufacturing, Incorporated, hereinafter referred to as "NUMMI", has applied for recertification of its Fremont, California Assembly Plant Phase II vapor recovery system previously certified for a modified Hasstech burner, custom-made dispensing nozzle with a computer controlled dispensing system and backup manual dispensing system on the truck assembly line for passenger's side fueling, semiautomatic and manual dispensing systems on the automobile assembly line, on-site plant automobile fueling station and associated piping to include a new custom-made dispensing nozzle with a computer controlled dispensing system and backup manual dispensing system on the truck assembly line for driver's side fueling;

WHEREAS, the NUMMI Fremont, California Assembly Plant vapor recovery system have been evaluated pursuant to the Certification and Test Procedures;

WHEREAS, Section VIII-A of the Certification Procedures provides that the Executive Officer shall issue an order of certification if he or she determines that a vapor recovery system conforms to all of the requirements set forth in Certification Procedures Sections I through VII; and

WHEREAS, I, James D. Boyd, Air Resources Board Executive Officer, find that the NUMMI Fremont, California Assembly Plant vapor recovery system conforms with all of the requirements set forth in paragraphs I through VI of the Certification and Test Procedures;

NOW, THEREFORE, IT IS ORDERED that the NUMMI Fremont, California Assembly Plant vapor recovery system is hereby certified to meet the applicable certification performance

standards for Phase II vapor recovery. The system certified by this order is shown in Exhibit 1 (attached). System components shall be as specified in Exhibit 2 (attached).

BE IT FURTHER ORDERED that the modified Hasstech vapor collection and disposal system shall be operated in accordance with the manufacturer's operation and maintenance procedures and adhere to the minimum maintenance requirements as specified in Exhibit 3 (attached).

BE IT FURTHER ORDERED that there shall be no vapor leaks at the fillpipe/nozzle interface during the fueling of vehicles. Vapor leaks shall be defined and measured by the "Leak Check Procedure" as specified in Exhibit 4 (attached).

BE IT FURTHER ORDERED that compliance with the applicable certification requirements and rules and regulations of the Division of Measurement Standards, the State Fire Marshal's Office and the Division of Occupational Safety and Health is made a condition of this certification.

BE IT FURTHER ORDERED that compliance with the rules and regulations of the Bay Area Air Quality Management District shall be made a condition of this certification.

BE IT FURTHER ORDERED that the vapor piping and other equipment not specifically certified by the State Fire Marshal shall comply with the rules and regulations of the local fire official.

BE IT FURTHER ORDERED that any alteration in the equipment, parts, design or operation of the Systems certified is prohibited, and deemed inconsistent with this certification, unless the alteration has been approved by the Air Resources Board Executive Officer or his or her designee.

BE IT FURTHER ORDERED that this executive order shall supersede Executive Order G-70-147 dated January 19, 1993.

Executed this 11 day of July 1996, at Sacramento, California.

James D. Boyd
Executive Officer

Exhibit 1
Executive Order G-70-147-A
NUMMI Assembly Plant Vapor Control System

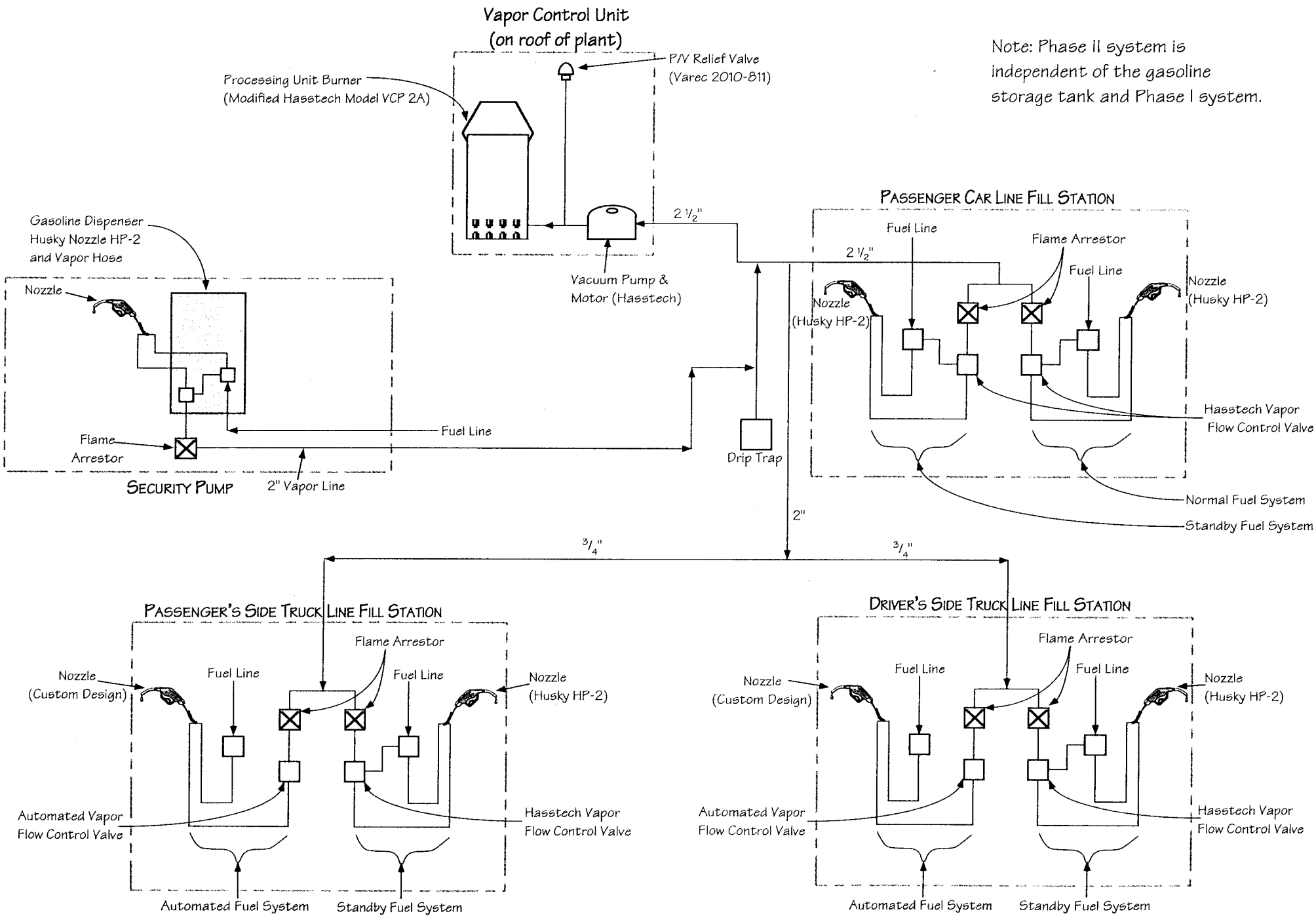

Exhibit 2
Executive Order G-70-147-A

New United Motors Manufacturing, Incorporated
Fremont, California Assembly Plant Phase II Vapor
Recovery System Component Specifications

Unit	State Fire Marshal Identification Number
Vapor Processor	
Hasstech burner VCP-2A (modified) (note 1)	1016-PRA
Vapor collection pump (Rotron D3133)	1016-7
Pressure/Vacuum relief valve	
Varec Model 2010-811	1016-9
Hasstech flow control valves	1016-3
Flame arrestors	
Pump inlet – Protectoseal SP 4951	1016-6
Pump outlet – Protectoseal SP 4951	1016-8
or Hesstech 1025	1016-6 and -8
Fill Nozzles	
Security Station – Husky HP-2	1016-1
Automobile Line – Husky HP-2 (modified) (note 2)	1016-1
Manual Backups – Husky HP-2	1016-1
Or any balance system nozzle which has been CARB certified for use with the Hasstech VCP-2A system.	
Truck Line Automated Systems	
Passenger's side fill station	005:047:001 issued 4/13/92
Driver's side fill station	005:047:001 revised 12/7/95
Vapor Hoses – Hasstech 1/2 inch or greater	1016-2
Coaxial Hoses – any Board certified coaxial hose, length as required	

Notes:
1. Burner modifications:
   a. Standing natural gas pilot replaces electronic ignition;
   b. Number of burner pipe holes increased to 18, each 7/64 inch in diameter; and
   c. Flow regulator removed.
2. Equipped with modified fill spout (Part # 5-VEXSS).

Exhibit 3

Executive Order G-70-147-A

New United Motors Manufacturing, Incorporated Fremont, California Assembly Plant Phase II Vapor Recovery System Minimum Maintenance Requirements

1. NUMMI shall conduct the following maintenance on a yearly basis:

   a. Check all screens in the vapor return system;

   b. Check vapor control valves to determine if they are opening properly and for liquid leaks and replace any valves that are not opening or are found leaking;

   c. Check collection unit for proper operation in accordance with manufacturer's instructions and, if necessary, replace or repair defective components per manufacturer's instructions;

   d. Check burner unit for proper operation in accordance with manufacturer's instructions and, if necessary, replace or repair defective components per manufacturer's instructions; and

   e. Check pressure/vacuum relief valve for proper operation and repair as required.

2. NUMMI shall replace or rebuild the blower motor ten years or less after installation or whenever required.

3. NUMMI shall check and replace any defective bellows or vapor recovery hoses on a weekly basis.

4. NUMMI shall record and maintain records of all installation tests, scheduled inspections and repairs for a minimum of two years and make such records available to Bay Area Air Quality Management District, California Air Resources Board or federal Environmental Protection Agency inspectors upon demand.

Exhibit 4

New United Motors Manufacturing, Incorporated Fremont, California Assembly Plant Phase II Vapor Recovery System Leak Check Procedure

A vapor leak is defined to be any source of gasoline vapors which causes a combustible gas detector meter reading exceeding 100 percent of the LEL when measured at a distance of one inch (2.5 cm). A vapor leak does not include any vapor resulting from liquid spillage or leakage.

Combustible Gas Detector

A portable hydrocarbon gas analyzer with associated sampling line and probe using catalytic oxidation to detect and measure concentrations of combustible gas in air.

(a) Range

Minimum range of 0-100 percent of the lower explosive limit (LEL) expressed as propane (0 to 21,000 ppm).

(b) Detector Response Time

Response time to 90 percent of the final stable reading of less than 8 seconds for detector with sampling line and probe attached.

(c) Calibration

Calibrate the combustible gas detector with 2.1 percent by volume (21,000 ppm) propane in air for 100 percent LEL response. Calibration gas shall be traceable to NIST-SRM.

Sample Probe

(a) Probe Diameter

Sampling probe internal diameter of 0.625 cm (1/4 inch).

(b) Probe Length

Probe sampling line of sufficient length for easy maneuverability during testing.

Sampling

(a) Probe Distance

The detector probe inlet shall be 2.5 cm from the potential leak source. The distance can be maintained during monitoring by putting a 2.5 cm extension on the probe tip.

(b) Probe Movement

Move the probe slowly (approximately 4 cm/sec). If there is any meter deflection at a potential leak source, move the probe to locate the point of highest meter response.

(c) Probe Position

As much as possible, the probe inlet shall be positioned in the path of the vapor flow from a leak so as to maximize the measured concentration.

(d) Individual Vapor Leak Check Duration

The results of vapor leak checks are systematically biased positively (toward a determination of violation) by leak check duration. To control this bias, leak checks shall be performed individually with a fresh air purge between each leak check. Each leak check shall have a duration of less than twice the instrument response time (typically, less than sixteen seconds). Longer leak checks are invalid. The probe must be purged with fresh air for more than two instrument response times (more than sixteen seconds) between individual leak checks.