State of California AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-15-1-1

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

IVECO N.V.

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following Iveco N.V. 1996 model-year engine, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavy-duty off-road equipment:

Typical Equipment Usage: Harvester, Generator

Fuel Type: Diesel

| Engine Family | <u>Liters (C</u> | ubic Inches) | Exhaust Emission Control Systems and Special Features |
|---------------|------------------|--------------|---|
| TVE14.R6DARA | 13.8 | (842) | Smoke Puff Limiter Turbocharger Charge Air Cooler |

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matters (PM) certification exhaust emission standards, in grams per brake horsepower-hour (g/bhp-hr), and the opacity of smoke emission standards, in percent (%), during acceleration (Accel), lugging (Lug), and peak (Peak) modes, for this engine family are (Title 13, California Code of Regulations, Section 2423):

| <u>Exh</u> a | <u>ust Emissi</u> | ons (g/bhp | -hr) | Smoke | Opacity | (%) |
|--------------|-------------------|------------|-----------|--------------|------------|-------------|
| <u>THC</u> | <u>co</u> | <u>NOx</u> | <u>PM</u> | <u>Accel</u> | <u>Luq</u> | <u>Peak</u> |
| 1.0 | 8.5 | 6.9 | 0.4 | 20 | 15 | 50 |

The THC, CO, NOx and PM exhaust emission certification values, in g/bhp-hr, and the opacity of smoke emission certification values, in percent (%), for this engine family are:

| | Exhaust Emission (g/bhp-hr) | | | | Smoke | Smoke Opacity (%) | | |
|---------------|-----------------------------|-----------|------------|-----------|--------------|---------------------|-------------|--|
| Engine Family | <u>THC</u> | <u>co</u> | <u>NOx</u> | <u>PM</u> | <u>Accel</u> | <u>Lug</u> | <u>Peak</u> | |
| TVE14.R6DARA | 0.3 | 1.0 | 4.3 | 0.2 | 20 | 11 | 36 | |

BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2425 et seq.).

Executive Order U-R-15-1 dated March 27, 1996, is hereby superseded and cancelled by Executive Order U-R-15-1-1

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this _

R. B. Summerfield Assistant Division Chief Mobile Source Division

day of May 1996.

E.O. # U-R-15-1-1

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY OFF-ROAD DIESEL ENGINES

Page 1 of 1

| | | | | | | · · |
|----------------------------|---------------------|--|---------------------------------------|---------------------------------|--------------------------|---|
| Manufacturer: _ | IVECO | N.Y. | I | Engine Family: | TVE14.R6D | ARA_ |
| Displacement: _ | 13.798/ | 841.98 Liters/0 | Cubic Inches | Eng. Con | nfig: <u>I-6</u> | - |
| All Codes in En | g Fam: CA | 49S | 50S <u>X</u> | _ Cert Test Prod | cedures: ARI | B EPA_X_ |
| | | | | per Combustion | | |
| Maximum Rate | d Power: | 193HP | (368 | KW) | <u> 1950</u> | RPM |
| | | | | w Plug X | | |
| | | | | Diesel_X | | |
| | | | | Other (specify) _ | | |
| Diesel Cert Fue | el: 40 CFR 86. | 1313 - 94 <u> X</u> | (| Other (specify) | | |
| | | | | . Generating Set | | |
| Exhaust ECS (| e.g., MFI, TC, | CAC): | | SPL, TC, CAC viations per SAE | 11020 II INIO | 2) |
| | | | (use abbrev | | 11930 10109 | J) |
| Engine Model (Eng Code) | Rated HP @ RPM | Fuel Rate @ Rated HP mm³ / stroke (lbs/hr) | Fuel Pump & Injector Part no. | ECMPCM- Part no. GOVERNOR | EGR Valve Part no. | PTOX/ Catalytic Converter Part no. |
| 8215.42.985 | 3 5 0@1950 | 202 (129.5) | PE6P130A 720RS7197 0402646669 | RQV 425 975PA1292 | N/A | N/A |
| : | | ' | KBEL 111 S75 516 | | | |
| 8215.42.5985 | 493@1950 | 288 (186) | PE6P130A 720RS7339 0402646649 | RQV 425 975 | N/A | N/A |
| | | | KBEL 111 S75 555 | | | |
| 8215.42.5986 | 460@1800 | 282 (169.4) | PE6P130A 700RS7225-1 0402616805 | ACD 275D | N/A | N/A |
| | | | KBEL 111 S75 555 | | | |
| | | <u>.</u> | | · | | |
| Date Issued: | | | | | | |
| | il 11, 1996 April | 23 1996 | 1 | 1 | | 1 |