ILLINOIS POLLUTION CONTROL BOARD February 27, 1975

| HYON WASTE MA | ANAGEMENT | SERVICES | INC., |) | |
|---------------|------------|-----------|--------|----------|-------|
| | Peti | tioner, | |)) | |
| vs. | | | |) PCB 74 | 4-433 |
| ENVIRONMENTAL | PROTECTION | ON AGENCY | , |) | |
| Respondent. | | | ,) | | |

OPINION AND ORDER OF THE BOARD (by Mr. Henss):

Hyon Waste Management Services operates a plant at Slip #6 on the eastern side of Lake Calumet in Chicago, Illinois for the purpose of receiving and treating chemical and organic industrial waste from Chicago and surrounding areas.

On November 20, 1974 Hyon filed "Petition for Review of Refusal to Renew Open Burning Permit, Denial of Construction and/or Operating Permit, or in the Alternative for a Limited Variance for Testing Purposes." Hyon and the Agency now submit a Stipulation which is to serve as a basis for the Board's decision. If the requested variance is granted Hyon agrees that its request for review of permit denial shall be deemed withdrawn.

Hyon's facility utilizes three basic treatment methods to process waste materials: chemical treatment, highly specialized biological treatment and incineration. This proceeding involves only the operation of the incinerator system.

The incinerator system includes three furnaces, two of which are connected together to comprise a single high capacity integrated system for the destruction of burnable waste of all types. A high temperature cyclone furnace burns high heat value liquid waste in parallel with a variable temperature rotary kiln furnace which burns solids and sludges. The gaseous discharges from these furnaces mix in a separate afterburner at a temperature of between 2200° and 3000° F. The afterburner is followed in series by a water quench, a water spray scrubber.

a packed and irrigated cross-flow scrubber, an induced draft fan and an 80' stack. A variety of accessory equipment is utilized for the scrub water circuits. There is also associated chemical equipment, mixing and pumping equipment, instrumentation and equipment for fuel storage and processing.

The Agency issued an experimental open burning permit to Hyon on August 19, 1971 for construction and testing of the incinerator system. Due to construction delays the incinerator was not functional until June 1973. Testing under commercial conditions did not occur until September 1973. The Agency issued another permit for one year to Hyon on September 18, 1973.

Operations of the incinerator have been sporadic due to lengthy shutdowns to repair the incinerator refractory lining. From June to September 1974 the incinerator was operated for ten days and during this time test data was obtained. This data indicated that Hyon was experiencing problems with excessive particulate emissions.

Hyon attempted to renew the permit prior to the expiration date of September 18, 1974 but the Agency denied the permit. A second application for permit was also denied. In refusing to renew the operating permit the Agency took the position that the incinerator was no longer an "experimental" incinerator within the meaning of Rule 504(a)(l). The Agency also decided that a Rule 103(a) construction permit was not needed since modifications to the system were insufficient to meet the requirements of that Rule and that stack test data was not sufficient for the issuance of an operating permit pursuant to Rule 103(b).

Agency personnel have inspected the system and determined that the present problem appears to be operational in nature rather than an inherent difficulty with the system.

Hyon has requested a six months variance from Rules 103, 202(b) and 203(e)(2) in order to complete testing and further modification, if required, and thereby resolve its differences with the Agency. This variance is required in order to obtain operating data adequate to support the issuance of an operating permit. The Agency recommends granting this variance to and including June 30, 1975 subject to certain conditions.

Hyon has invested over \$3,500,000 in this facility to date. Two million of this total has been spent on the incineration system. The Board is of the opinion that Hyon's operation, when operable and permitted, could provide the greater Chicago area with a much needed regionalized treatment works for hazardous and toxic materials. Disposal of such materials now creates

substantial problems for manufacturers because these materials are generally not permitted to be landfilled.

Emissions from the facility allegedly create noticeable odors in the area. However, an Agency Engineer investigating the facility stated that he doubts that such odors unreasonably interfere with any residences because the facility is in a remote location. The nearest residence is over 1 1/2 miles distant.

We believe that the facility could eventually be a highly desirable addition to the waste disposal system and environmental control in the area.

This potential for environmental improvement certainly outweighs any temporary adverse effects which might exist while the system is being brought up to operational standards. Therefore, the variance will be granted.

This Opinion constitutes the findings of fact and conclusions of law of the Pollution Control Board.

ORDER

It is the Order of the Pollution Control Board that Hyon Waste Management Services Inc. is granted variance from Rules 103(a), 103(b), 202(b) and 203(e)(2) of the Air Pollution Control Regulations for its Chicago waste treatment facility from November 20, 1974 to and including June 30, 1975. This variance is subject to the following conditions:

- l. Hyon and the Environmental Protection Agency shall enter into a written agreement which shall include a test schedule to obtain data for an operating permit application. Hyon may deviate from such schedule only with the Agency's consent or on 5 days prior written notice to the Agency, after which an amended schedule shall be agreed upon before further testing is conducted.
- 2. During each such test Hyon shall undertake such stack testing as may be appropriate for the analysis, evaluation and improvement of the incinerator system, and shall utilize such test methods as may be reasonably required and approved by the Agency for such purpose. The methods known as ATP-1, -1A and -2 shall be used as a guide, but shall not be required in all cases if substantial engineering reasons exist for using alternative methods and if the Agency agrees to such other methods. Particulates and CO shall be tested at each burn. Tests for chlorides,

SO₂, hydrocarbons and nitrogen oxides shall be conducted as reasonably required by the nature of the material being burned, and on at least one occasion prior to the completion of the test schedule when the subject of the test is likely to be near its maximum expected level. Should the test for hydrocarbons show emissions in excess of 8 pounds per hour, further testing should be performed to determine if the hydrocarbon emissions are photochemically reactive.

- 3. Hyon shall allow representatives of the Agency to attend, observe, and inspect and copy the data and results of all such tests.
- 4. Hyon shall endeavor to meet Rule 203(e)(2) at all times during such testing. In the event that testing results or visual observation of the stack plume indicates a stack loading of 0.5 g/scf or greater, such condition shall be immediately corrected, or that test shall be terminated and no further testing undertaken until the cause of such excessive particulate emissions has been determined and corrected.
- 5. Hyon shall prepare and file an application for a Rule 103(b) operating permit at its earliest opportunity, based on the stack test data obtained pursuant to this variance.

The Petition for Review of Permit Denials is moot and is hereby dismissed without prejudice.

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