



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276

THOMAS V. SKINNER, DIRECTOR

217/524-3300

September 10, 2001

CERTIFIED MAIL

7099 3400 0006 5937 2787

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Langley Properties, LLC
Attn: Robert Fletcher
150 North Wacker, Suite 2160
Chicago, Illinois 60606

Innovative Technology & Materials, Inc.
Attn: Thomas Turzak
125 Windsor Drive, Suite 111
Oak Brook, Illinois 60523

Re: 0316005924 -- Cook County
Innovative Technology & Materials, Inc.
Permit No. 2001-221-SP
Log No. 2001-221 (2001-026, 1999-457-DE)
Permit File

Gentlemen:

Permit is hereby granted to Langley Properties, LLC, as owner, and Innovative Technology & Materials, Inc. as operator, to operate a solid waste management site to store and treat solid waste (fly ash and bottom ash), all in accordance with the application and plans signed and sealed by Bruce W. Bawkon, signature dated January 16, 2001. This permit also reflects the transfer of the operator status from American International Materials, Inc. to Innovative Technology & Materials, Inc. and correctly identifies Langley Properties, LLC as the owner. Final plans, specifications, application and supporting documents as submitted and approved shall constitute part of this permit and are identified on the records of the Illinois Environmental Protection Agency, Bureau of Land by the permit number(s) and log number(s) designated in the heading above.

The permit is issued subject to the standard conditions attached hereto and incorporated herein by reference, and further subject to the following special conditions. In case of conflict between the application and plans submitted and these special conditions, the special conditions of this permit shall govern.

1. The facility shall not accept hazardous waste as defined in 35 Ill. Adm. Code 721.103.
2. This permit allows the operation of the following units listed below:

<u>unit description</u>	<u>approximate size</u>	<u>proposed use</u>
a. silos (2) (for fly ash only)	150 tons	storage

GEORGE H. RYAN, GOVERNOR

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|----|--|---|---|
| b. | storage area in warehouse | as delineated in
Figure 2 of the operating
permit application dated
January 18, 2001 | storage |
| c. | metal recovery line | 19,000 lb/hr. | to recover metal for sale |
| | i. | magnetic separation | to remove ferrous
material |
| | ii. | vibrator | to loosen material |
| | iii. | screener | to separate metals and
ash |
| | iv. | magnetic separation (2) | to remove ferrous
material |
| | v. | vibrator | to loosen material |
| | vi. | eddy current | to separate non-ferrous
metals |
| d. | manufacturing line | 12,000 lbs/hr. bottom ash
15,000 lbs/hr fly ash | to produce cementitious
products |
| | i. | weigh hopper | |
| | ii. | mixer | to mix raw materials |
| | iii. | extruder | to form blocks |
| | iv. | cutter | to cut into blocks |
| | v. | crusher (portable) | to recycle rejected
material |
| | vi. | screening | separation of rejected
material into sizes |
| e. | all corresponding sumps,
pumps, piping controls, loading
and unloading areas and appurtenances | | |

3. The Permittee shall only accept ash generated from the Robbins Resource Recovery Facility or steel and foundry industry waste in accordance with the procedures specified in Condition 27. No other wastes may be accepted at the facility.
4. The Permittee may store feed waste streams with a particle size of 100 mesh or larger on an as received basis in the warehouse. The waste may have 5% by weight which passes through the mesh. Wastes which fail this criteria must be stored in the silos.
5. Any wastes generated at this site sent for disposal, storage, incineration or further treatment elsewhere shall be transported to a permitted solid waste facility utilizing a manifest and licensed special waste hauler. If the waste is certified non-special in accordance with Section 22.48 of the Act, a manifest and licensed special waste hauler is not required.
6. All products manufactured from the ash are subject to the waste management regulations until the Permittee demonstrates that the bricks or other products manufactured using solid waste as ingredients are an effective substitute for commercially available products. This demonstration must consider the chemical and physical properties of the waste derived product versus a virgin product and show that the use of the ash to make the product does not pose additional health or environmental hazards in the resulting use of the product.

In the submittal dated January 18, 2001:

- a. The applicant has adequately demonstrated that the paver product manufactured on the Zenith paver machine using incinerator ash from the Robbins facility is an effective substitute for a commercially available product. Other molds or shapes manufactured on the Zenith paver machine using incinerator ash from the Robbins facility are effective substitutes for commercially available products.
 - b. The applicant has not shown that the hazardous constituents present will not have an adverse effect on human health or the environment due to migration of waste constituents for the finished stone product. Specifically, a quantification of the risk posed by the hazardous constituents, antimony, cadmium, lead, nickel and zinc, was not provided for the finished stone product.
 - c. The applicant has not shown that the hazardous constituents present will not have an adverse effect on human health or the environment due to migration of waste constituents for the finished sand product produced from the ash from the Robbins facility. Specifically, a quantification of the risk posed by the hazardous constituents, antimony and arsenic, was not provided for the sand product.
7. Recovered metals which are generated during ash screening and recycled scrap metal are not subject to the requirements of Special Condition No. 5.

8. The Permittee shall perform routine housekeeping as outlined in the approved application. Routine housekeeping measures at a minimum shall include:
 - a. inspection and maintenance of the equipment identified in Condition #2 above in accordance with the manufacturer's recommendations;
 - b. daily sweeping and cleaning of the floor area in the manufacturing area, and metal recovery area;
 - c. washdown of the floor, if necessary, to control fugitive dust;
 - d. daily inspection of the storage area, pneumatic lines and conveyors for spills and leaks; and
 - e. routine housekeeping to prevent ash or litter from leaving the property.
9. In the event of a leak or a spill the Permittee shall remove the system from service immediately and complete the following actions:
 - a. Stop the flow of waste into the system and inspect the system to determine the cause of the release;
 - b. Remove all waste as necessary from the system within 24 hours of the detection of the leak to prevent further release and to allow inspection and repair of the system;
 - c. Clean up the spilled material upon discovery;
 - d. And properly dispose of any spilled material and/or visible contamination.
10. The Permittee(s) shall notify the Illinois EPA's Bureau of Land in writing of its intent to close at least 45 days prior to the date closure is expected to begin. Along with this notification, the Permittee(s) shall submit the procedure and the sampling and analysis plan to be used in demonstrating the area has been properly decontaminated. This plan shall be approved by the Illinois EPA's Bureau of Land in writing prior to being implemented.
11. The operator shall notify the Illinois EPA within 30 days after receiving the final volume of waste.
12. The operator shall initiate implementation of the closure plan within 30 days after the site receives its final volume of waste.
13. The operator shall not file any application to modify the closure plan less than 180 days prior to receipt of the final volume of waste.

14. Upon completion of closure activities, the operator shall notify the Illinois EPA that the site has been closed in accordance with the approved closure plan utilizing the Illinois EPA's "Affidavit for Certification of Completion of Closure of Non-Hazardous Waste Facilities."
15. This permit is subject to review and modification by the Illinois EPA as deemed necessary to fulfill the intent and purpose of the Environmental Protection Act and all applicable environmental rules and regulations.
16. A record of any spills and leaks and the actions taken shall be maintained in a facility's operating records. These records must be available upon request for inspection.
17. The Permittee shall either conduct analysis of the ash annually or obtain updated analysis annually. The analysis must be sufficient to determine whether the ash is hazardous and whether the ash is amenable for treatment at this facility.
18. This facility shall be operated in accordance with the Illinois EPA's Bureau of Air Permit Number 99100075. This permit is issued with the expressed understanding that no process discharge to Waters of the State or to a sanitary sewer will occur from these facilities, except as authorized by a permit from the Bureau of Water (BOW).
19. Any modification to the facility shall be the subject of an application for supplemental permit for site modification submitted to the Illinois EPA.
20. The closure plan and cost estimate which was received by the Illinois EPA on December 6, 1999, amended, by sampling costs submitted February 17, 2000 are hereby approved in accordance with 35 Ill. Adm. Code, Subtitle G, Part 807.
21. Failure to follow the inspection and maintenance schedule submitted as part of this permit application shall be considered a violation of this permit. Records of compliance with the inspection and maintenance schedule shall be maintained as part of the Facility's Daily Operating Log.
22. All loading/unloading of special wastes shall be accomplished over a paved surface. The overhead doors shall remain closed except when trucks are entering or leaving.
23. All trucks delivering waste must be tarped.
24. The permit allows a maximum volume of 7000 tons to be stored at the facility at any time.
25. Fire safety equipment (fire extinguishers) shall be maintained in accordance with recommended practice.

26. Coal combustion by-product (CCB) which is used in accordance with Section 3.94 (2) of the Environment Protection Act as a raw ingredient in the manufacture of concrete products is not a waste subject to regulation when sold as a product as described in the permit application.
27. Wastes from the steel and foundry processes covered by SIC Codes 331 and 332 may be used in the manufacture of cementitious products at this facility, in accordance with the procedures described in the permit application dated June 4, 2001 and modified July 24, 2001 under the following circumstances:
 - i) the waste meets the beneficially usable limits in Section 817.106 for the inorganic parameters;
 - ii) the waste meets the potentially usable or low risk limits in Section 817.106 for the inorganic parameters and passes the product demonstration procedure.
 - iii) the waste meets the potentially usable or low risk limits in Section 817.106 for the inorganic parameters with the exception of one or more secondary standards and passes the product demonstration procedure.

All wastes shall be evaluated initially and annually thereafter. The product demonstration procedure shall consist of the following:

- i) randomly, four pilot paver units from a batch mix, which consists of 54 paver units, will be sampled and analyzed by method SW846 6010B by the synthetic precipitation leaching procedure for the concentration of arsenic, barium, cadmium, chromium, copper, iron, lead, manganese, selenium, and zinc;
- ii) the same paver units which were sampled in (i) above, will be sampled and analyzed by method SW846 6010B for the total metal concentration of the following constituents: arsenic, barium, cadmium, chromium, copper, lead, manganese, selenium and zinc;
- iii) in addition, if the waste used to produce the pavers exceeds the secondary values for sulfate and chloride, the permittee shall analyzed by method EPA 300 the paver units by synthetic precipitation leaching procedure to determine sulfate and chloride concentrations ;
- iv) the permittee shall compare concentrations of each constituent identified by the analysis in i through iii above to the values in the table below. If the concentration in the paver exceeds the maximum concentration for any constituent identified in the table, the pavers from that batch mix shall be disposed of as solid waste and the waste shall not be used to manufacture pavers.

Parameter	Total	SPLS
Arsenic	0.4 mg/kg	0.05 ppm
Barium	5,500 mg/kg	2.0 ppm
Cadmium	78 mg/kg	0.005
Chloride	NA	400 ppm
Chromium	270 mg/kg	0.1 ppm
Copper	2900 mg/kg	0.65 ppm
Iron	NA	5.0 ppm
Lead	400 mg/kg	0.0075 ppm
Manganese	3,700 mg/kg	0.15 ppm
Selenium	390 mg/kg	0.05 ppm
Sulfate	NA	400 ppm
Zinc	23,000	5.0 ppm

- v) Equation #8 presented in Chapter 9 of SW846 entitle, "Test Methods for Evaluations Solid Wastes" will be used to determine if additional paver units need to be analyzed to properly characterize the product.
- vi) A specific waste from a specific generator which produces a paver product which exhibits a concentration mean value with a 95% confidence interval for the metals and the value is below the values in the table above is acceptable.
- vii) In lieu of method SW846 6010B, method 7060A may be used for arsenic, method 7740 may be used for selenium and method 7131A may be used for cadmium (SPLP only).
- viii) If there is a conflict between the permit application and the permit conditions, the permit conditions shall govern.

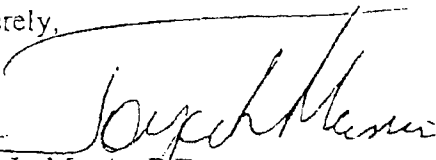
The original and two (2) copies of all certifications, logs, reports, and groundwater monitoring chemical analysis forms which are required to be submitted to the Illinois EPA by the permittee should be mailed to the following address:

Illinois Environmental Protection Agency
Reporting and Financial Assurance Unit
Bureau of Land -- #24
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Within 35 days after the date of mailing of the Illinois EPA's final decision, the applicant may petition for a hearing before the Illinois Pollution Control Board to contest the decision of the Illinois EPA, however, the 35-day period for petitioning for a hearing may be extended for a period of time not to exceed 90 days by written notice provided to the Board from the applicant and the Illinois EPA within the 35-day initial appeal period.

Work required by this permit, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Sincerely,



Joyce L. Munie, P.E.
Manager, Permit Section
Bureau of Land

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cc: Fountainhead Engineering Limited
City of Chicago

bcc: Bureau File
Des Plaines Region
Ted Dragovich
Mark Scholienberger