



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PERMIT TO DOW CHEMICAL COMPANY FOR CONTINUED OPERATION OF A SOLID WASTE
DISPOSAL AREA IN LEDYARD, CONNECTICUT

An application for a permit dated March 15, 1983, has been submitted by:

James Brozzo
Dow Chemical USA
Allyn's Point Plant
Route 12
Gales Ferry, CT 06335

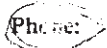
for continued operation of a solid waste disposal area on two acres of property owned by DOW Chemical and located within their plant area off Route 12 in Ledyard, adjacent to and east of Thames River. The actual disposal operation consists of the composting of plant latex wastes.

THIS PERMIT IS HEREBY GRANTED in accordance with Section 22a-208, Connecticut General Statutes and based on the following submittals:

- A. Application form and one sheet of site plans (topographic map, town of Ledyard) received by the Solid Waste Management Unit on March 24, 1983.
- B. A five page letter entitled, "Operation and Management Plan for the DOW Chemical Latex Compost and Compost Landfill Areas" prepared by Andrew J. Clapham and received by the Solid Waste Management Unit on March 24, 1983.
- C. Monitor well locations and boring logs, received by the Solid Waste Management Unit, date unknown.
- D. Two letters addressed to John England, Solid Waste Management Unit, from Andrew Clapham, Dow Chemical, received on October 6, 1983. One letter contains a drawing of the compost area, the other contains the water analysis from the monitor wells.

PROVIDED THAT:

- 1. The site development and operational plans, as prepared by Andrew J. Clapham of DOW Chemical, shall be strictly adhered to throughout the site life.
- 2. Material to be disposed of is strictly limited to latex wastes as described in the site operation and management plan.



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3. The used composting soil shall be confined to the delineated compost area. The soil shall not be removed from the site without DEP permission.
4. The completed facility shall be graded to drain, covered with one foot of clean soil, and stabilized with vegetation.
5. The site access shall be controlled with a locked gate. The site shall have an attendant present when open during the posted hours.
6. Waste processing and disposal operations shall be conducted so as to maximize runoff, minimize infiltration and prevent erosion and the collection of standing water.
7. Disposal or storage of hazardous wastes at this facility is prohibited.
8. Ground water quality monitoring shall be conducted by the applicant or its consultant at the two locations outlined on the site engineering plans.

Ground water monitoring will be conducted at the following locations:

- W-1 (upgradient) - monitor well up gradient and adjacent to compost area.
W-2 monitor well down gradient of the compost area.

Each annual sample shall be analyzed for the following ten leachate indicator parameters:

- | | |
|---------------------------|--------------------|
| 1. total dissolved solids | 6. total iron |
| 2. total suspended solids | 7. total manganese |
| 3. alkalinity | 8. ammonia |
| 4. BOD (20) | 9. nitrate |
| 5. COD | 10. chloride |

and for volatile organic scan.

Following measurement of the water level in the monitoring wells, the wells shall be pumped immediately prior to sampling until at least three (3) times the volume of water standing in the well is evacuated to insure that a representative sample of the ground water is obtained. All ground water samples should be filtered in the field to remove excess suspended solids. The samples shall be analyzed by a laboratory certified by the State Health Department. All samples shall be placed in the appropriate container for the test to be conducted (i.e. BOD bottle, volatile organics bottle, $\frac{1}{2}$ gallon plastic bottle, etc.)

8. (cont)

The sampling and testing performed according to this paragraph shall be done according to this schedule:

Sampling date

July

Reporting date

September 1

The results shall be reported to the Solid Waste and Water Compliance Units of the Department of Environmental Protection at the State Office Building, Hartford, Connecticut 06106. A copy of the sampling results shall also be sent to the Health Officer of the town in which the disposal area is located.

The Commissioner may revise this monitoring schedule at any time with regard to locations to be sampled, frequency, or parameters to be tested, as the need arises.

9. All major sources of final cover material shall be DEP approved and shall conform to grain size specifications under Section 19-524-2 of the Solid Waste Regulations.
10. This permit is subject to and in no way derogates any present or future property rights or other rights or powers of the State of Connecticut, and conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state, or local laws or regulations pertinent to the property or activity affected hereby.
11. This permit is transferable only with the prior written permission of the Commissioner of DEP.
12. The operator complies with all rules and regulations of the Department of Environmental Protection applicable to the operation and maintenance of the disposal area as they may be amended from time to time.

Dated in Hartford, Connecticut this 14th day of November, 1983.

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STANLEY J. PAC, COMMISSIONER

BY

Stanley J. Pac
Stanley J. Pac, Commissioner

Operator/Owner

John H. Oberly

Solid Waste Permit No. 072-1L

Regulations of Connecticut State Agencies

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(i) **Waste collection areas.**

(1) Owners or operators of solid waste disposal areas may provide one or more containers within a designated collection area so that waste may be unloaded from non-commercial vehicles and deposited therein. Disposal area personnel shall oversee the disposal of waste at such designated collection areas.

(2) Scavenging at waste collection areas shall be prohibited.

(3) Collection areas shall be located a safe distance from the working face and from the movement of disposal area equipment and commercial collection and hauling vehicles.

(4) The owner or operator shall be responsible for the sanitary condition and orderly appearance of the waste collection area, and shall remove all waste from the collection area and deposit it in the working face of the disposal area at such frequencies as to insure that no waste remains in the collection area for longer than forty-eight (48) hours.

(5) Portions of the solid waste disposal area which are used solely to collect and store recyclable materials are not subject to the requirements of subdivision (i) (4) of this section.

(j) **Equipment.**

(1) The equipment used for spreading, compacting and covering shall be of sufficient size and number to achieve maximum compaction and efficient operation.

(2) Provision shall be made for the routine operational maintenance of equipment at the solid waste disposal area or elsewhere, and for the prompt repair or replacement of equipment.

(3) The owner or operator of a solid waste disposal area shall establish a contingency plan outlining procedures for obtaining alternative equipment or other alternative method of disposal in the event of an equipment breakdown which can reasonably be expected to exceed twenty-four hours in duration. The owner or operator shall notify the Department immediately when such a breakdown occurs.

(k) **Blowing litter.** Blowing litter shall be controlled by use of fencing near the working area or by the use of earth banks or other natural barriers acceptable to the Commissioner. Solid wastes shall be unloaded in such a manner as to minimize scattering. The entire solid waste disposal area shall be reasonably clear of litter at the end of each working day.

(l) **Cover operations.**

(1) Cover material. There shall be stored within the boundaries of the solid waste disposal area a standby supply of cover material equal to twenty-five (25) percent of the volume of the disposal area consumed in ten days at normal disposal rates. Such cover stockpile shall be protected from freezing in the winter season.

(2) Daily cover. Cover material shall be applied and compacted to a minimum thickness of six (6) inches on all exposed wastes by the end of each working day.

(3) Intermediate cover. On all but the final lift of a solid waste disposal area, if more than nine months is expected to elapse before another lift is added, a layer of intermediate cover material, compacted to a minimum uniform depth of one (1) foot, shall be placed on such area and vegetative cover shall be planted in the next planting season and shall be maintained thereon.

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(4) Final cover. A uniform layer of final cover material compacted to a minimum depth of two (2) feet shall be placed over the entire surface of each portion of the final lift not later than one week following the final placement of solid waste in that portion of the area unless otherwise specified in the facility permit to construct. Upon application of final cover, the area shall be regraded to prevent erosion and ponding, and vegetative cover shall be planted in the next planting season and shall be maintained thereon.

(m) **Vector control.**

(1) Conditions shall be maintained that are unfavorable for the harboring, feeding and breeding of vectors.

(2) Additional means for controlling and exterminating vectors shall be instituted, whenever necessary in the judgment of the Commissioner to prevent the transmission of disease.

(n) **Decomposition gases.**

(1) Decomposition gases generated within the solid waste disposal area shall be controlled as necessary to avoid posing a hazard to any persons or property and to minimize adverse environmental effects.

(2) The concentration of methane gases generated by the solid waste disposal area shall not exceed:

(A) Twenty-five percent (25%) of the lower explosive limit for methane in on-site or off-site structures including buildings, sheds and utility or drainage lines, but excluding gas control or recovery system components, or

(B) The lower explosive limit for methane in the ground at the property boundary of the solid waste disposal area.

(3) (A) No new solid waste disposal area shall begin operations without the owner or operator first installing any gas venting and monitoring system indicated on the approved facility plan. A phase-in of the system may be permitted if so indicated in the facility's permit to construct.

(B) Upon written notice to the owner or operator of an active solid waste disposal area or the owner of an inactive or closed solid waste disposal area that in the opinion of the Commissioner the area poses an actual or potential hazard from decomposition gases, the owner or operator shall submit construction and installation plans for a gas monitoring and/or venting system to the Commissioner for approval, and, upon approval, shall install such a system in conformance with such approved plans. The approved plans shall become part of the facility plan. Monitoring shall be performed in accordance with a schedule approved by the Commissioner.

(4) The recovery of methane gases for use as a fuel is not prohibited by this subsection.

(o) **Restrictions on certain wastes.**

(1) Hazardous wastes shall be excluded from solid waste disposal areas. However, separate facilities at a solid waste disposal area may be approved for the disposal of certain hazardous wastes by the Commissioner in accordance with Public Act 84-115 and the Hazardous Waste Management regulations of the Department of Environmental Protection.

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Special wastes, including any liquid waste, shall be excluded unless disposal is approved in writing by the Commissioner.

(p) **Recycling.** Materials to be recycled shall be maintained in a separate area so as not to interfere with disposal operations. Materials held for recycling shall be adequately screened from view or removed at frequent intervals.

(q) **Employee facilities.** Each solid waste disposal area shall have adequate shelter and restroom facilities for employees, first aid supplies, and telephone or two-way (i.e., sending and receiving) radio communication equipment. Each of these must be provided at or adjacent to the disposal area.

(r) **Air quality.**

(1) Dust and odors resulting from the operation of the solid waste disposal area shall be controlled at all times to assure compliance with the applicable regulations of the Department for the Abatement of Air Pollution.

(2) No open burning of solid waste shall be conducted except upon compliance with the applicable statutes and regulations of the Department for the Abatement of Air Pollution regarding open burning.

(s) **Bird hazards to aircraft.** A solid waste disposal area disposing of putrescible wastes that may attract birds and which occurs within 10,000 feet (3,048 meters) of any public airport runway used by turbojet aircraft or within 5,000 feet (1,524 meters) of any public airport runway used by only piston-type aircraft shall conduct its operations so as not to pose a bird hazard to aircraft. Affirmative measures for bird hazard control shall be taken as necessary.

(t) **Screening.** Best practical effort shall be made to screen the working face of a solid waste disposal area from view from surrounding residential or business areas.

(u) **Disruption of solid waste disposal areas.**

(1) Written approval shall be obtained from the Commissioner prior to any excavation, disruption, or removal of deposited material at an active, inactive or closed solid waste disposal area.

(2) All requests for approval shall include but need not be limited to an operational plan stating the area involved, depth of proposed excavation with final grades, estimated cubic yards of material to be excavated or disrupted, site where excavated material is to be redeposited and estimated time required for completion of excavation procedures. The approved plan shall become part of the facility plan.

(3) All excavation shall be confined to an area consistent with the number of pieces of digging equipment and/or trucks used for haulage.

(4) Adequate measures shall be taken during excavation to protect the public health and to control dust, odors, fires, vectors, and blowing litter.

(5) Disposal of all solid waste resulting from excavation shall be in conformity with the requirements of these regulations.

(v) **Endangered species.**

(1) Facilities or practices shall not cause or contribute to the taking of any endangered