



CITY OF PORTLAND

DEPARTMENT OF PLANNING & URBAN DEVELOPMENT
INSPECTION SERVICES DIVISION

February 7, 1986

RE: Rear 1004 Congress Street
(Near Danforth Street)

Mr. John L. Donovan, President
Biotherm International, Inc.
P.O. Box 4043, Station A
Portland, Maine 04101

~~RE: 1004 Congress Street~~ Denied

2/7/86

Dear Mr. Donovan:

I have concluded that based on the additional information submitted with your application for a building permit and change of use for your proposed use in the I-2 Industrial Zone, these permits must be denied based on the following reasons.

We have concluded that this is a product which can be valuable as a growth supplement or a fertilizer, that such a process involving fish and seaweed and its transformation into a liquid state or bactericide is a process not allowed within the I-2 Industrial Zones.

These uses are prohibited in Section 14-246 (2) of the City Zoning Ordinance (Portland Land Use Code). If you wish to appeal, you may file an appeal for review by the Board of Zoning Appeals through this office.

Sincerely,

Warren J. Turner
Zoning Specialist

Not sent

cc: Merrill Seltzer, Chairman, Board of Appeals
Joseph E. Gray, Jr., Director of Planning and Urban Development
David Lourie, Corporation Counsel
Alexander Jaegerman, Chief Planner
P. Samuel Hoffses, Chief of Inspection Services



CITY OF PORTLAND

DEPARTMENT OF PLANNING & URBAN DEVELOPMENT
INSPECTION SERVICES DIVISION

February 6, 1986

Rear 1004 Congress Street
(Near Danforth Street)

Mr. John L. Donovan, President
Biotherm International Inc.
P. O. Box 4043, Station A
Portland, ME 04101

DRAFT

Dear Mr. Donovan:

Building permit and change of use for your proposed project cannot be issued by this office based on the following reasons:

- a. Section 14-246 (2) of the Zoning Ordinance governing prohibited uses within the I-2 Zones includes:
 - (2) Fabrication, processing or manufacture of:
 - "d. processing of fish is not allowed."
 - "f. The distillation or rendering of fertilizer or growth supplements is prohibited."
 - "g. Production of insecticides or fungicides...refining or derivation of by-products."

Based upon these above prohibitions in the City Zoning Ordinance, the proposed uses which Biotherm contemplates are denied by this office.

If you wish to appeal this decision, you may initiate a Use Variance or Interpretation Appeal before the Board of Zoning Appeals by filing for such an appeal before the Board of Appeals. The fee for such action is \$50.00 per appeal or variance.

Sincerely,

Warren J. Turner
Zoning Specialist

WJT/jmr

cc: Merrill Seltzer, Chairman, Board of Appeals
Joseph E. Gray, Jr., Director, Planning & Urban Dev.
Alexander Jaegerman, Chief Planner
P. Samuel Hoffses, Chief, Inspection Services

W. Turner



CITY OF PORTLAND

JOSEPH E. GRAY, JR.
DIRECTOR OF PLANNING & URBAN DEVELOPMENT

February 3, 1986

John L. Donovan, President
Biotherm International, Inc.
P.O. Box 4043, Station A
Portland, Maine 04101

Re: Biotherm/1004 Rear Congress Street

Dear Mr. Donovan:

This is to acknowledge receipt of your letter of January 29, 1986 apparently requesting a building permit for Biotherm's proposed facility at 1004 Rear Congress Street. According to our records, however, there is no such application pending, the two previous applications having been withdrawn and the fees twice refunded at your request. Since this office does not give advisory opinions, if you still seek a decision on the permisability of this use at that location, please resubmit an application for permit together with the appropriate fee to the Code Enforcement Division, Department of Planning and Urban Development. A decision will then be made in due course.

Sincerely,

Joseph E. Gray, Jr.
Joseph E. Gray, Jr.
Director

JEG/smb

Joseph -

John Donovan - Berkman - called me at

home last night. He wants to speak with you

about the small digest - the original

one from the Portsmouth area demonstration -

which he is now operating on St John Street.

He wants to know if this is OK as to going

(since it's a "hot unit" I suppose) and wants a

permit to enclose it with some kind of structure.

Can you call him?

Tom

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: P. Samuel Hoffses, Chief of Inspection Services
FROM: John E. Vandoloski, Assist. Chief of Inspection Services
SUBJECT: Bio Therm's Request

DATE:
February 3, 1986
JEL

After reviewing the letters concerning Bio Therm's fish hydrolysate, I have not been convinced positively that a "loose" interpretation of the word fertilizer might support an opponents position that the plant should not be allowed to operate in the proposed I-2 Zone.

Although the N-P-K (nitrogen phosphorous - potassium) level in the most recent experimental test batches have been analyzed around .9 .9 .9, the Department of Agriculture, according to Robert Clark (Enforcement) candidly stated that they could very well still determine that this product is a fertilizer. The laws of the State of Maine 7 MRSa Sec. 742.7 would seem to illustrate that the substance (fertilizer) must be primarily used for its plant nutrient content.

In looking at the supporting "documents", it seems that Bio Therm altered their original plans to manufacture the product as a fertilizer after Warren Turner turned down their original application. In looking at their latest lab reports and research by the University of Rhode Island and the Florida Department of Agriculture & Consumer Services, I sincerely feel that this microbiologically digested organic (fish) product will take the place of a herbicide, fungicide, insecticide and bactericide. Obviously, the product still has some fertilizer value and this is the grey area which we should evaluate very thoroughly before we collectively make a final determination.

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development

(2) Section 14-246 of the City's Zoning Ordinance prohibits the "fabrication, processing or manufacture of... (v) pesticides and animal products, ... (including) fertilizers" in an I-2 Zone. Based upon the information submitted with your application and upon our own research, this office has concluded that the product you described as resulting from the proposed use would fall within this prohibition as a potential growth supplement or fertilizer.



CITY OF PORTLAND

DEPARTMENT OF PLANNING & URBAN DEVELOPMENT
INSPECTION SERVICES DIVISION

February 7, 1986

RE: Rear 1004 Congress Street
(Near Danforth Street)

Mr. John L. Donovan, President
Biotherm International, Inc.
P.O. Box 4043, Station A
Portland, Maine 04101

Dear Mr. Donovan:

~~We have concluded that based on the additional information submitted with your application for a building permit and change of use for your proposed use in the I-2 Industrial Zone, these permits must be denied based on the following reasons:~~

P
~~We have concluded that this is a product which can be valuable as a growth supplement or a fertilizer, that such a process involving fish and seaweed and its transformation into a liquid state or bactericide is a process not allowed within the I-2 Industrial Zones.~~

~~These uses are prohibited in Section 14-246 (2) of the City Zoning Ordinance (Portland Land Use Code). If you wish to appeal, you may file an appeal for review by the Board of Zoning Appeals through this office.~~

Sincerely,

Warren J. Turner
Zoning Specialist

cc: Merrill Seltzer, Chairman, Board of Appeals
Joseph E. Gray, Jr., Director of Planning and Urban Development
David Lourie, Corporation Counsel
Alexander Jaegerman, Chief Planner
P. Samuel Hoffses, Chief of Inspection Services

permit dated February 5, 1986

this decision to the Board of Appeals, within 30 days of this decision.

APPLICATION FOR PERMIT

B.O.C.A. USE GROUP
 B.O.C.A. TYPE OF CONSTRUCTION
 ZONING LOCATION *F.R. Zone 1* PORTLAND, MAINE .. Feb. 5, 1986.

To the CHIEF OF BUILDING & INSPECTION SERVICES, PORTLAND, MAINE
 The undersigned hereby applies for a permit to erect, alter, repair, demolish, move or install the following building, structure, equipment or change use in accordance with the Laws of the State of Maine, the Portland B.O.C.A. Building Code and Zoning Ordinance of the City of Portland with plans and specifications, if any, submitted herewith and the following specifications:

LOCATION *1004 Rear Congress Street*
 1. Owner's name and address *Cianbro Corp., Pittsfield, Maine* Fire District #1 , #2
 Telephone
 2. Lessee's name and address *Biothern International, P. O. Box 4043, Station A, Portland, Me. 04101* Telephone *799-8126*
 Telephone
 3. Contractor's name and address *Contractor - David DiPietro, 221 Virginia St.* Telephone *797-9531*
 Telephone
 Proposed use of building *concrete pad* No. of sheets
 Last use No. families
 Material No. stories Heat Style of roof No. families
 Other buildings on same lot Roofing
 Estimated contractual cost \$ *4,000*

FIELD INSPECTOR—Mr.	Appeal Fees \$
@ 775-5451	Base Fee40.00
To construct concrete pad, 18' x 36' x 12" which would support a storage tank and anaerobic digester.	Late Fee
	TOTAL \$

~~Don~~ Donofed *2/7/86* Stamp of Special Conditions

NOTE TO APPLICANT: Separate permits are required by the installers and subcontractors of heating, plumbing, electrical and mechanicals.

DETAILS OF NEW WORK

Is any plumbing involved in this work? *no* Is any electrical work involved in this work? *no*
 Is connection to be made to public sewer? If not, what is proposed for sewage?
 Has septic tank notice been sent? Form notice sent?
 Height average grade to top of plate Height average grade to highest point of roof
 Size, front depth No. stories solid or filled land? earth or rock?
 Material of foundation Thickness, top bottom cellar
 Kind of roof Rise per foot Roof covering
 No. of chimneys Material of chimneys of lining Kind of heat fuel
 Framing Lumber—Kind Dressed or full size? Corner posts Sills
 Size Girder Columns under girders Size Max. on centers
 Studs (outside walls and carrying partitions) 2x4-16" O. C. Bridging in every floor and flat roof span over 8 feet.
 Joists and rafters: 1st floor 2nd 3rd
 On centers: 1st floor 2nd 3rd roof
 Maximum span: 1st floor 2nd 3rd roof
 If one story building with masonry walls, thickness of walls? height?

IF A GARAGE

No cars now accommodated on same lot to be accommodated number commercial cars to be accommodated
 Will automobile repairing be done other than minor repairs to cars habitually stored in the proposed building?

APPROVALS BY: DATE

BUILDING INSPECTION—PLAN EXAMINER

ZONING:

BUILDING CODE:

Fire Dept.:

Health Dept.:

Others:

MISCELLANEOUS

Will work require disturbing of any tree on a public street? *no*

Will there be in charge of the above work a person competent to see that the State and City requirements pertaining thereto are observed? *yes*

Signature of Applicant *[Signature]* Phone # *545-.....*

Type Name of above *John L. Donovan, Esq.* 1 2 3 4

Biothern International and Address

FIELD INSPECTOR'S COPY APPLICANT'S COPY OFFICE FILE COPY

Biotherm INTERNATIONAL

P.O. Box 4043 Station A Portland, Maine 04101 (207) 799-8126

RECEIVED

FEB - 5 1986

DEPT. OF BUILDING INSPECTIONS
CITY OF PORTLAND

Joseph E. Gray
Director of Planning and Urban Development
City of Portland
389 Congress Street
Portland, Maine 04101

January 29, 1986

Dear Joe:

Biotherm International, Inc. believes that it has the right to use a building in an I-2 zone to conduct its affairs.

In discussions with the Building Inspectors' Office of the City of Portland, Biotherm was informed that its application for a building permit would be denied on the grounds that it is marketing a fertilizer product. We believe this interpretation to be erroneous, arbitrary, capricious and an abuse of authority.

The pertinent section of the Zoning Ordinance reads in part:

"No building shall be...altered...or used...in an I-2...zone... for any of the following uses:...

(2) Fabrication, processing or manufacture of:...

f. Vegetable and animal products, except those from materials previously processed elsewhere which shall not include...fertilizer ..." Section 14-246 (2) f.

The American College Dictionary defines "fertilizer" as "any material used to fertilize (enrich) the soil, esp. a commercial or chemical manure." Obviously a very broad generic type definition that can cover all sorts of matter or compounds.

The laws of the State of Maine do not define fertilizer as such. However they do define "fertilizer material" as any substance containing nitrogen, phosphorous, potassium or any recognized plant nutrient element or compound which is used primarily for its plant nutrient content or for compounding mixed fertilizers except un-manipulated animal and vegetable manures." 7 MRSA Sec. 742 7. This definition is not as broad since the "any substance" (material) is qualified by the standard that it must be primarily used for its plant nutrient content.

Biotherm's product, the hydrolysate of anaerobically digested fish, will not be used for its plant nutrient (N-P-K) content. Since we have a microbiological process and not a chemical process, Biotherm cannot provide a guaranteed analysis of minimum plant nutrient levels as required by the State of Maine fertilizer laws. Consequently, it cannot be charged with manufacturing a fertilizer.

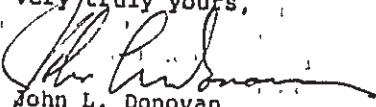
J.E. Gray
1/29/86
Page 2

Admittedly Biotherm, in its early stages, considered that it might manufacture a fertilizer. However, in the intervening months as laboratory and field tests have been analyzed, we have reconsidered our product lines.

Enclosed are copies of correspondence that support our contention that the highest and best use of our product is in the nature of a bacteristatic agent. This has been a Company position since the fall of 1985. Enclosure 1. is a letter dated November 8, 1985 to Dr. T.S. Schubert, Plant Pathologist, Florida Department of Agriculture and Consumer Services, requesting tests as a bactericide. Enclosure 2. dated January 20, 1986 to the Company, is a copy of Dr. Schubert's reply. Enclosure 3. is a Company letter to Dr. Walter Kinder, University of Florida, continuing the bactericide discussion. Enclosure 4. is a letter to the Company, dated January 23, 1986, from C.R. Skogley, Professor of Turfgrass Management, University of Rhode Island, urging the testing of the product as a fungicide or insecticide. Enclosure 5. is a letter to the Company dated January 24, 1986 from W.E. Colby, Microbiologist, Northeast Laboratory, Waterville, Maine suggesting investigation of the bactericidal properties. We trust that these noted scholars and scientists and Biotherm's own representations will convince you of the merits of our position.

We believe that the manufacture of a bactericide from animal products previously processed elsewhere is allowed in an I-2 zone. This product does not violate the standards in Sec. 14-246 (2) g. because it is not a plastic or a chemical product but an animal product and thus allowed.

In our opinion, Biotherm should be granted immediately, any and all building permits, use permits and other licenses necessary to proceed with the conduct of its affairs. Continued delay on the City's part will only result in a needlessly expensive legal process to secure our rights.

Very truly yours,

John L. Donovan
President

/stc

Biotherm
INTERNATIONAL

P.O. Box 4043 Station A Portland, Maine 04101 (207) 799-8126

Dr. Tim Schubert
Florida State Department of Agriculture
Plant Pathology Department
P.O. Box 1269
1911 SW 34th Street
Gainesville, Florida 32602

November 8, 1985

Dear Dr. Schubert:

I appreciate the opportunity to have Biotherm's new organic hydrolysate tested for possible bactericidal action against *Xanthomonas Citri*.

To date we have tested our product against Fecal Choliform, *Salmonella typhimurium*, *Clostridia botulinum*, C. Bot toxin type E, together with vegetative spore analysis. All of these tests showed complete reductions of the toxins, indicator bacteria and vegetative spores.

In addition, work by others has determined similar results with *Fusarium oxysporum*, *Corynebacterium* and *Globodera pallida*. Informal tests have shown the product to be effective against aphids and potato beetles.

We thank you for your assistance. If we can be of any service to you, or provide additional information, please feel free to contact us.

Very truly yours,

James R. Ferguson
Executive Vice President

cc: William McCullum, M.C.
C.H. Swan

enc: Material safety data sheet

/stc

STATE OF FLORIDA



FLORIDA DEPARTMENT OF AGRICULTURE & CONSUMER SERVICES

* DIVISION OF PLANT INDUSTRY / DOYLE CONNER BUILDING / 1911 S.W. 34TH STREET
* POST OFFICE BOX 1269 / GAINESVILLE 32602 / TELEPHONE 904-372-3505

January 20, 1986

Mr. Jim Ferguson
Biotherm International
P. O. Box 4043
Station A
Portland, Maine 04101

Dear Mr. Ferguson:

Samples 1, 2, 3, and 4 of Biostar Batch #1110851 have been received. Several in vitro tests against Xanthomona campestris pv citri have revealed significant bactericidal activity in the product. Sample #4 demonstrated the most antimicrobial activity. It is my opinion and the opinion of my colleagues here that the product warrants further testing. Dr. Mike Meadows has recently joined our staff in the Bureau of Plant Pathology, and will be overseeing further laboratory testing of your product in our quarantine facility.

We will be in touch with further results of our tests.

Sincerely,

T. S. Schubert/jm
T. S. Schubert
Plant Pathologist

TSS:jw

Biotherm
INTERNATIONAL

Handwritten initials
P.O. Box 4043 Station A Portland Maine 04101 (207) 799-8126

Dr. Walter Kinder
University of Florida
Lake Alfred, Florida

January 21, 1986

Reference: Citrus Cancer Testing

Dear Dr. Kinder:

Thank you for the time you took to discuss the ongoing testing of our new organic based hydrolyzed fish material.

Tim Schubert and Dr. Michael Meadows of the Florida State Department of Agriculture in Gainesville have confirmed a definite bacteriostatic or bactericidal response when *Xanthomonas Citri* is exposed to our material. During other in-vitro testing we have had great success against the following:

- Salmonella typhimurium
- Clostridia botulinum
- Choliform
- De-naturing of C-Bot toxin Type E
- Suppression of Vegetative spore growth

Work by others has shown similar results with:

- Fusarium oxysporum
- Corynebacterium michiganense
- Globodera pallida

Biotherm has proprietary technology in the area of microbial fermentation/digestion. The liquid which possesses these bactericidal qualities is derived from the biological conversion of macerated fish material. We believe the inhibition of growth of plant pathogens in the Biotherm material is due in part to the presence of abundant enzymes, including proteolytic types. Fatty acids and ester by-products as well as volatile organics may also play an important role in the inhibition process.

It was recommended by Tim Schubert that we seek field trials to determine the level of systemic activity derived from foliar application of our material.

We are, therefore, most encouraged by your agreement to initiate field testing against citrus canker in Argentina, and are eager to work closely with Dr. Ray McGuire at his earliest convenience.

Please let us know how to proceed with the Argentina test program and advise us of any additional information which may be required.

Dr. Walter Kinder
1/21/86
Page 2

Thank you for your cooperation.

Sincerely,

James R. Ferguson
Executive Vice President

/stc

enclosures *NE Labs*
5841-2, 4. Materials *Thick*

cc: C.H. Swan
Congressman William McCullum



University of Rhode Island, Kingston, RI 02881-0804
College of Resource Development, Department of Plant Science

January 23, 1986

Mr. John Donovan
Bio Therm International
P.O. Box 4043, Station A
Portland, ME 04101

Dear Mr. Donovan:

This is in response to your phone call of January 17, 1986. We are looking forward to working with you in the effort to evaluate the fish waste product you have developed. As I have stated to you, your product should not be considered to be a fertilizer. It is obvious that it has fertilizer value. Any decomposable organic matter has some fertilizer value. As it also contains many minor and trace elements it may also have value as a "tonic" similar to various inorganic commercial products formulated for use on turf, ornamentals and food crops. Beyond these potential values, however, we would like to evaluate the product as it affects the health and well-being of plants. We would like to determine whether it has fungicidal or insecticidal values or because of its complex organic base it may have other benefits to plant growth.

Through the years considerable research has been done with various products from the sea. There are reports of beneficial effects on enhancing plant growth with certain of these products. These benefits have not been attributed to "fertilizer" value.

It is certainly possible to fortify your product with nitrogen, phosphorus and potassium, or other elements to create a fertilizer for various crops. Since this type of product would be considerably more expensive than commercial inorganic fertilizers there would have to be additional benefits. It is these "added" benefits that we must ascertain.

Preliminary studies we have done here with your product and other fish waste products would indicate that plant growth is improved beyond that attributable only to fertilizer. We do look forward to working with you to fully evaluate your product.

Sincerely,
C. R. Skogley
C. Richard Skogley
Professor of Turfgrass Mgt.

CRS/afn