

GENERAL  **ELECTRIC**
COMPANY

Research Laboratory

POST OFFICE BOX 1088, SCHENECTADY, NEW YORK TELEPHONE Dickens 6-8771

Farina

April 26, 1965

*non è stata
gestita per
me aereo!*

APR 28 1965
289

Professor-Doctor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano

Dear Professor Natta:

My associates and I were pleased to learn that Dr. Mario Farina will be coming to the United States this summer and will be available for Laboratory visits and lectures. We would like to invite him to spend a day with us here at the General Electric Research Laboratory in Schenectady, New York.

We would be most happy to assist Doctor Farina in making his travel and hotel reservations during his trip to Schenectady. If we may be of assistance in these matters, please let me know.

The General Electric Company will be happy to reimburse Doctor Farina for the local travel and living expenses incurred on our behalf. We will also add a \$100 honorarium for his lecture.

Sincerely yours,

A. M. Bueche
A. M. Bueche - Manager
CHEMISTRY RESEARCH

AMB/mos

cc: Prof. G. C. Overberger

*copy a Farina 18/5
65*

Jan.12, 1965



Dr.F.P.Civardi, Manager
Manufacturing Engineering
Polymer Products Manufacturing
Chemical Development Operation
General Electric Company,
1, Plastics Avenue,
Pittsfield, Massachusetts (U.S.A.)

our ref.8/lv

Dear Doctor Civardi:

Only to-day, on my return to Milan, I receive your kind letter of Dec.31.

I wish to confirm you that I will be glad to meet you on your visit to Milan. Please, let me know the exact date of your visit with some advance, because I am very busy in this period.

Kindest personal regards.

Giulio Natta

AIR MAIL

GENERAL  **ELECTRIC**
COMPANY

CHEMICAL
DEVELOPMENT
OPERATION

ONE PLASTICS AVENUE, PITTSFIELD, MASSACHUSETTS . . . TELEPHONE 413 443-5681

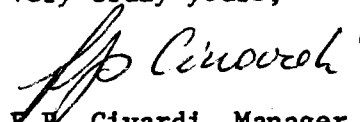
December 31, 1964

Prof. Giulio Natta
Istituto di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci, 32
Milano, Italy

Please excuse my delay in answering your letter of November 9. Because of recent developments in the PPO (Polyphenylene Oxide) business we had to delay our trip to take care of some urgent business. You probably heard by now that General Electric decided to go commercial in this new field of oxidative coupling chemistry.

In view of your worldwide recognition in the field of polymer chemistry, we look forward to an exchange of ideas on the subject. We will be in Europe late in January or in February, and I will be in touch with you to confirm an exact date agreeable to you.

Very truly yours,



F.P. Civardi, Manager
Manufacturing Engineering
Polymer Products Manufacturing
Chemical Development Operation

FPC:jd

Nov.9, 1964



Mr. Frank P. Civardi,
General Electric Co.
1 Plastics Ave.,
Pittsfield, Massachusetts (U.S.A.)

our ref.768/lv

Dear Mr. Civardi,

With regard to your letter of Oct.23, I shall be glad to meet you and the other technicians of General Electric, on your visit to Milan.

I wish to inform you that I shall be absent from Milan from Dec.4 to Dec.9 and from Dec.20 onwards. I would mostly appreciate your letting me know the exact date of your visit.

Sincerely yours,

Giulio Natta

GENERAL ELECTRIC

COMPANY

**CHEMICAL
DEVELOPMENT
OPERATION**

ONE PLASTICS AVENUE, PITTSFIELD, MASSACHUSETTS . . . TELEPHONE 413 443-5681

October 23, 1964

3 OCT 28 1964
768

Dottor Professor Giulio Natta
Institute Politecnico di Milano
Piazza Leonardo da Vinci
Milano, ITALY

Dear Professor Natta:

Just a few words to introduce myself. I was one of your 1953-1955 students at the time you were doing a tremendous amount of development work in the polypropylene field.

Your name is well known here in the United States - at General Electric, in particular, where we are now developing a new polymerization chemistry. Some of our top technical people would like to make your acquaintance.

We plan to be in Europe during the month of December and would like to stop in Milan and meet with you. I would appreciate your letting me know if and when you will be available.

Very truly yours,

Frank P. Civardi

Frank P. Civardi

*presente
dal 4-5 all' 8-9/12
FPC:ac
e dopo il 20
al fine
invece della notte*

MONTECATINI

Società Generale per l'Industria Mineraria e Chimica

AMMINISTRATORE DELEGATO

PROMEMORIA
G/tp

24 NOV 1956
R 731 AM

Data, 23 novembre 1956

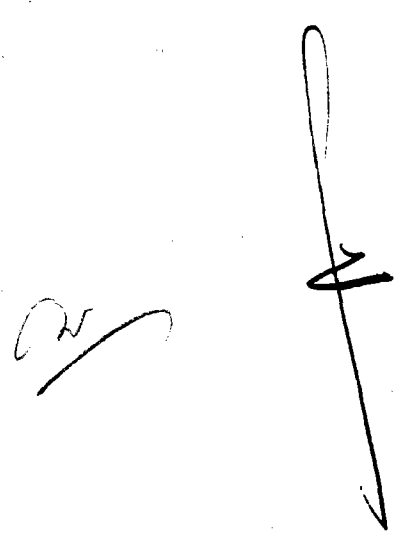
per il Signor ing. ORSONI

e p.c.: **ing. DE VARDA**
prof. NATTA
dr. SACCENTI

Mi riferisco alla Sua nota del 20 corr. nella quale Ella prospetta l'opportunità di assicurarci per l'Europa il processo G. E. Co. per l'irradiazione delle poliolefine, per mantenere una posizione di equilibrio rispetto a Ziegler.

Non sono convinto di questa opportunità e, per lo meno, di una sua urgenza; conto peraltro di ritornare sull'argomento in una apposita riunione.

Cordiali saluti.

Handwritten signature and initials, including a large vertical stroke and a horizontal flourish.

MONTECATINI

Società Generale per l'Industria Mineraria e Chimica

Brevetti e Documentazione Tecnica

PV/ma
PROMEMORIA

ISTITUTO DI CHIMICA INDUSTRIE DEL POLITECNICO		
*	16 NOV 1956	*
R	673	<input type="checkbox"/>

Data 15 Novembre, 1956

per il Signor Ing. Piero GIUSTINIANI

c.p.c. Ing. ORSONI
Prof. NATTA

Oggetto: Impianto propilene U. S. A. finanziato da General Electric e Montecatini ?

Nel corso delle trattative svoltesi nei giorni scorsi a Milano, i Signori della General Electric con riferimento alle "Special Report" del Broher Wiesenberger, in data 27 luglio 1956, hanno chiesto conferma per la seguente informazione riportata a pag. 4 dell'allegato:

"Trade talk holds that a joint venture with a large American oil or chemical company, which could lead to construction of a sizable petrochemical plant for the production of polypropylene, is in the making."

Abbiamo risposto che i possibili sviluppi futuri erano imprevedibili ma che finora non ci risultava fossero stati formulati dei progetti concreti nel senso più sopra indicato.

I Signori della General Electric hanno allora replicato con una certa enfasi che General Electric sarebbe stata desiderosa, qualora Montecatini decidesse di iniziare negli U. S. A. una "joint venture" nel campo del poli-propilene, di essere interpellata per prima, in quanto dispone, in uno stato centrale degli U. S. A. di ottime "locations" situate fra l'altro a distanza minima da ben tre grossi produttori di propilene.

Con ossequio.

all/



Milan, November 13, 1956

General Electric Company
Schenectady, N. Y.
(U. S. A.)

Gentlemen:

Proposed Polypropylene Plastics Option and License Agreement

We enclose herewith two copies of a standard draft Agreement concerning Polypropylene Plastics.

We sum up hereunder the financial terms under which we are offering you the said Agreement:

- | | | | |
|---|-------|-----------|---|
| - <u>Option sum</u>
(Article II) | Doll. | 150,000 | (one hundred fifty thousand U. S. dollars) |
| - <u>Down Payment:</u>
(Article V, Section 1 (a)) | Doll. | 1,350,000 | (one million three hundred fifty thousand U. S. dollar 50% (fifty per cent) creditable against future royalty payments to the extent of 50% of each royalty payment |
| - <u>Payment for the know-how:</u> developed up to December 31, 1957
(Article V, Section 1 (b) | Doll. | 500,000 | (five hundred thousand U. S. dollars) |
| - <u>Royalty Payments:</u>
(Article VI) | | 5% | (five per cent) for product and compositions |
| | | 3,5 % | (three point five per cent) for shaped articles). |

./.

November 13, 1956 to General Electric Company - Schenectady

We wish to add that we reserve the right to change the definition of "Licensee" (Article I, Section 6) to read:

6. The term "Licensee" shall include all Companies fifty per cent (50%) or more of the voting stock of which shall be owned directly or indirectly by Licensee, as well as all Companies owing directly or indirectly 50% or more of the voting stock of the Licensee and all other Companies in which said latter Companies own directly or indirectly 50% or more of the voting stock.

The validity of our offer shall expire on January 21, 1957 (included).

With best regards,

Yours sincerely,

(Ing. Piero Giustiniani)

encls.

MONTECATINI

Settore Progetti e Studi

Sede, 12 Ottobre 1956.

Preg.mi Signori
Prof. Giulio Natta
Ing. Giuseppe De Varda.

Il 12 Novembre i Sigg. dr. Marshall, dr. Schubert, dr. Elliott e Reynolds, della General Electric Co. saranno a Milano per discutere una licenza di fabbricazione del polipropilene.

Il personaggio più ragguardevole è il dr. Marshall, Capo delle Ricerche a Schenectady.

Or/sl.

Visoni

Sede, 15 Ottobre 1956.

Preg. mo Signore
Ing. Piero Giustiniani,
S e d e.

Acc

*event
electric*

Parlandomi al telefono, Mr. Reynolds della G.E. Co. mi ha detto che il gruppo che ci visiterà il 12. XI si incontrerà previamente col prof. Ziegler.

Poichè si tratterà di polipropilene, non mi pare che siano da prendere particolari accordi preventivi con von Kreislser.

fto: Orsoni

Or/sl.

179
August 30, 1956

Am

Mr. Peter Van Wick
Research Department
Hercules Powder Company
WILMINGTON - Delaware - USA

Dear Mr. Van Wick,

Coming back to Milan after a period of vacations, I found the wonderful book "Trees" you very kindly sent to me, that I appreciated very much.

I thank you very much to have remembered my interest in the trees and to have sent me the book.

I remember with pleasure my visit to the Hercules and the kindness received in Wilmington. Please convey my best regards to all people of Research Laboratory.

With deepest thanks and best wishes, I remain,

Sincerely yours,

Giulio Natta

MONTECATINI

SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA
ANONIMA - CAPITALE VERSATO L. 84.000.000.000

MILANO

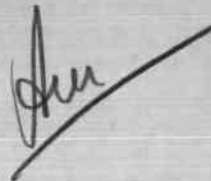
BREVETTI E DOCUMENTAZIONE TECNICA
DIREZIONE

via air mail
copy boat mail

MILANO (134) December 12, 1956
Via F. Turati, 18

Dr. A.E. Schubert
General Electric Co.
Pittsfield, Mass.
(U.S.A.)

Oggetto:



Vs.

№. dV/AMF/ma

Dear Dr. Schubert,

Polypropylene samples

Dr. Orsoni having left today for a trip abroad, I am replying on his behalf and after consultation with him to your cable of Dec. 10, 1956, asking us to send samples of polypropylene to be employed for irradiation tests. I have to tell you that for the time being we are not prepared to meet your request.

Since the negotiations with General Electric Company for a Polypropylene Plastics Option and License Agreement are under way, as soon an Agreement will be signed, sizable amounts of polypropylene will be sent to your Company under its provisions, which will permit the performance also of your irradiation tests.

With best regards,

Yours sincerely,



(Dr. Giuseppe de Varda)

MONTECATINI

SOC. GEN. PER L'INDUSTRIA MINERARIA E CHIMICA
ANONIMA - CAPITALE VERSATO L. 84.000.000.000
MILANO

BREVETTI E DOCUMENTAZIONE TECNICA

MILANO (134) 14. 12. 1956
Via F. Turati, 18

Chiar.mo Signor
Prof. G. N A T T A
Direttore Istituto di Chimica Industriale
Politecnico di
MILANO

Chiarissimo Professore,

Trattative Montecatini-General Electric sul po-
lipropilene (105/46)

Le trasmettiamo per co-
noscenza copia di una lettera della General
Electric del 5 dicembre 1956, con accluso un
questionario relativo a diversi punti della bozza
di contratto standard che è stata sottoposta alla
Società americana.

Voglia gradire i nostri
migliori saluti.

"MONTECATINI"

All.

P.S. Richiamiamo la Sua particolare attenzio-
ne sui 6 capoversi segnati in rosso a
pag. 1 e 2.

Telefoni 6333 - 6334 - Telefoni Interurbani chiedere GABBRO-MILANO
Telegrammi-Télégrammes-Telegramme-Cables: GABBROBREV-MILANO

GENERAL ELECTRIC
COMPANY

CHEMICAL AND METALLURGICAL DIVISION
CHEMICAL MATERIALS DEPARTMENT

ONE PLASTICS AVENUE, PITTSFIELD, MASSACHUSETTS TELEPHONE 8223

December 5, 1956

Dr. Bartolomeo Orsoni
Central Technical Director
Montecatini
18 Via Albania
Milan, Italy

Dear Dr. Orsoni:

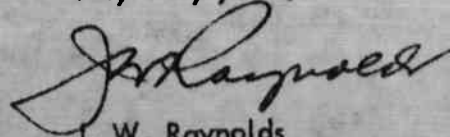
I am attaching a summary which is related to the polypropylene option and license agreement which you and your associates presented to us on November 13. These points which are raised are the same ones which Dr. Schubert and I discussed with you and Dr. de Varda. At the time we departed there were a few additional points which we had not yet reached in our discussion and these are included in the present summary. The summary also includes all of the points that were covered and whereas you gave us verbal answers to many of these questions, it would be appreciated if you or Dr. de Varda would restate your answers in reply to this letter so that our record of the discussions will be complete in all respects.

I am leaving December 13 for a long deferred vacation and will return January 16. Meanwhile, Dr. Schubert will be handling these matters with our top executives to obtain the necessary approval of our proposals to them.

We wish to thank you for the courtesies which you have extended to us and truly appreciate the opportunity you have given us to give serious consideration to your proposals.

With best regards and Christmas greetings.

Very truly yours,



J. W. Raynolds
Manager - Marketing
Chemical Materials Department

JWR:dk

Att.

Summary of Questions Raised by G. E. with Reference to Polypropylene Plastics
Option and License Agreement, Edition 12, dated October 4, 1956, as Delivered
to G. E. by Montecatini on November 13, 1956.

- Page 1
When do we see schedules A & B?
- Page 2, Article I,
Sect. 1(a)
Next to last line -- Does "both" mean joint inventions
are involved in Montecatini-Ziegler applications?
- Page 3, Sect. (b)
& (c)
What is the difference in the subject matter covered by
these two paragraphs?
- Page 4, Sect. (a-i)
together with
Page 5, Sect. (5-ii)
We feel that this restriction to aliphatic monoolefinic
hydrocarbons should be expanded wherein R could be vinyl
or aromatic or any non-olefinic material. On the other
hand we accept the restriction in the field as proposed which
would embrace any articles including foils, films, tapes,
sheets, tubes, pipes, molded and extruded products and other
shaped articles excluding those elastomeric articles made from
copolymers defined in Section 9 (as it may be revised to re-
flect the inclusion of plasticized compositions which may be
elastic in nature) and fibers as defined in Section 8 (with
modifications to reflect the exclusion of narrow width
insulating tapes).
- Page 4, Sect. (v)
4th Line
We would like to see this wording revised to read "compositions
including resins, coating compositions and molding materials. . ."
- Page 6, Par. (f)
4th Line
We would like to have the last four lines changed to read as
follows: "including resins and molding materials and plasti-
cized compositions but excluding elastomeric compositions
or articles resulting from copolymers as defined in Section 9
hereof." (Our objective here is to make it clear that our
licensed field and license subject matter would include
plasticized compositions but would exclude polymeric structures
which were elastomeric.)
- Page 7, Sect. 8
We would like to have the term "fiber" redefined so that it
would not exclude narrow widths of insulating tapes the length
of which would usually be more than 100 times its width.
Insulating tapes might range from a thickness of 1/2 mil to
1 1/2 mils. On the other hand when an insulation is being
made for a capacitor, it is desirable to have a film thickness
of less than 1/2 mil and frequently down to as low as 1/10
of 1 mil if one can obtain continuity with good electrical
properties.

Page 8, Sect. 9

We would like to have the term "elastomer" redefined to clarify the inclusion of plasticized polypropylene. Such plasticizing might be accomplished by organic esters. Examples would be dibutyl sebacate, tricresyl phosphate, etc., alkyd polymers, and other commonly used plasticizers as distinct from an elastomeric polymer which obtains its elastic properties from the polymer structure. A suggested definition would be -- The term "elastomer" shall mean a polymer or copolymer structure which is inherently capable of being repeatedly stretched to at least twice its original length and upon immediate release of the stress, rapidly return to its approximate original length. Rigid polymers or copolymers which have been plasticized by compounding with another material to produce flexible or elastic compounds are not considered elastomers for the purpose of this contract.

An "elastomeric product" or "elastomeric composition" or "elastomeric article" is a product or composition or article made of or formed from an "elastomer" as defined above.

Page 9, Article III,
Sect. 1, Par. (c)

What is meant by the word "insure" ?

" Par. (d)

What is meant by "small samples" ? Also, we should insert after the word "polypropylene" the words "polymer powder."

Page 9, Sect. 2 (a)

Please clarify again the full meaning of this paragraph.

Page 10, Sect. 3(a)

How large is "reasonably" ?

Page 10, Sect. 3

What is the firm date that goes in after the words "similarly developed up to....." ?

Page 10, Sect. 3(c)

We think that the limitation of inspection to one year after signing the agreement is too short. How much longer can this time be increased ?

Page 10, Sect. 3(e)

We would like to clarify the duration intended by this paragraph. We think it should be continuous and for the life of the agreement.

Page 12, Article V,
Sect. 1 (a)

This relates to the down payment mentioned in your letter of November 13 in the suggested amount of \$1,350,000. This figure we recognize is based upon the assumption that Montecatini will have a U. S. patent issue with claims covering isotactic polypropylene as a new product. If such patent issues with such specific allowed claim to isotactic

polypropylene as a new product, then we believe that this amount of down payment can be acceptable. On the other hand, if such product claims are not allowed in the U. S. to Montecatini, then we believe that the value of the down payment for licenses under the Montecatini patents would be substantially less--certainly not more than 1/4 of this amount or \$337,500. We therefore propose the following modification of the down payment provisions:

- a. Upon exercising the option, the sum of \$1,350,000 shall be placed in escrow pending the issuance of the U. S. patent covering isotactic polypropylene. If product claims are allowed in the U. S. case covering isotactic polypropylene, then 50% of this sum together with accumulated interest shall be paid to Montecatini as down payment and 50% of this sum shall be paid to Montecatini as credit against future royalty payments and amortized on a basis of 50% of each future royalty payment.
- b. If product claims covering isotactic polypropylene are not allowed in the U. S. patent applications, then \$1,012,500 of this \$1,350,000 placed in escrow shall revert to G. E. together with accumulated interest. The balance or \$337,500 plus accumulated interest shall thereupon be paid to Montecatini. One-half of this sum together with accumulated interest shall be down payment. The balance of the down payment shall be subject to amortization against future royalties to the extent of 50% of each royalty payment.

Page 12, Article V,
Sect. 1 (b)

Payment for Know-how -- This sum in the amount of \$500,000 is considered appropriate for the know-how providing the option sum of \$150,000 payable under Article II becomes a credit in the event the option is exercised. In other words, if we exercise the option, the balance due under this section would be \$350,000.

Page 14, Article VI

Royalties -- This section presents two problems:

- a. Your proposal that there shall be two types of royalties paid by G. E. but that in no case no more than one royalty shall be due on any one pound of polymer, presents an accounting problem within the General Electric Company in that we would find it necessary when we sold a molding powder within the company to follow each pound and obtain an accounting for you