

U N D P

CERTIFICATE OF COMPLETION

PROJECT: BRA/12/G76 DATE APPROVED: December 31st, 2019.
AGENCY: UNDP ENGINEER: Miguel Quintero

CONTRACTOR: POLYURETHANE INDÚTRIA E COMÉRCIO LTDA.

LOCAL GOVERNMENT: OZONE PROTECTION UNIT OF THE BRAZILIAN
GOVERNMENT

Issued by: United Nations Development Programme (UNDP)

AGENCY (IA)

And to: POLYURETHANE INDÚTRIA E COMÉRCIO LTDA.
Av. Industrial, 367, Distrito Industrial, Ibitiré – Minas Gerais – Brazil
Zip Code: 32.400-000

CONTRACTOR

This Certificate of Completion applies to all work conducted under the Project Document approved by UNEP/OzL.Pro/ExCom/64/53 – Decision 64/40:

BRA/12/G76 – Brazil`s HCFC Phase-out Management Plan.:

- Conversion to non-HCFC Technology in the Manufacture of Polyurethane Foam of the enterprise POLYURETHANE INDÚTRIA E COMÉRCIO LTDA.;
 - Perform the technology transfer to HCFC-free technology to 55 pre-selected PU Foam end-users.
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The work to which this Certificate applies has been inspected by the ENGINEER in presence of authorised representatives of IA and CONTRACTOR and the work is hereby declared to be completed in accordance with the aforementioned project document.

December 31st, 2019

RESPONSIBILITIES

From the date of Completion the responsibilities between IA and CONTRACTOR for security, operation, safety, maintenance, utilities, insurance, warranties and guarantees shall be as follows:

IA: As of Tuesday, December 31st, 2019, all of the aforementioned responsibilities shall be passed from UNDP to POLYURETHANE INDÚTRIA E COMÉRCIO LTDA.; located in Ibirité, Brazil.

CONTRACTOR: As of Tuesday, December 31st, 2019, all of the aforementioned responsibilities shall be assumed by POLYURETHANE INDÚTRIA E COMÉRCIO LTDA., and the CONTRACTOR shall hold UNDP harmless.

The following is a list of complete activities carried out under the Conversion to non-HCFC Technology in the Manufacture of Polyurethane Foam of 55 pre-selected PU Foam end-users and the enterprise POLYURETHANE INDÚTRIA E COMÉRCIO LTDA. from December 2013 to December 2019:

System house's conversion: The conversion process of system house encompassed the following activities:

- Investment/ engineering project implemented at the polyurethane system production:
 - Plant adjustments (electrical grounding, piping and civil works);
 - Adaptation of storage area for flammable products (Methyl Formate) and transfer system to mixing area;
 - Installation of nitrogen system linked to mixing units (system inertisation);
 - Installation of safety systems /sensors /alarms /fire extinguisher /exhaust system;
 - Retrofit of pre-mixer units used for production of polyurethane rigid foams systems (sealing of tanks caps and explosion proof pump);
 - Issuance of safety certificate;
 - Staff training on safety measures and on handling and storage of flammable substances.
- 14.93 ODP t phased out.
- The declaration of disposal of baseline equipment is presented on Annex A.

End user's conversion: The conversion process of each beneficiary end-user listed in Annex B encompassed the following activities *via* the assistance of the system house:

- End-user baseline data validation in the field;
- Technology transfer;
- Trials at production and commercial levels;
- Assistance in civil works design and adaptation;
- Purchase or retrofit services with equipment specifications and guidance on execution;



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- Issuance of certificate on enterprise ability to safely handle the new technology;
- Collection of implementation documentation and completion of activities.

Executed on behalf of UNDP by ENGINEER on Tuesday, December 31st, 2019:

Miguel Wenceslau Quintero

Miguel Quintero, Engineer

CONTRACTOR accepts this Certificate on 02-jun-2020:

Marcílio Adorno Araújo Dias

By: _____
Marcílio Adorno Araújo Dias, Business Partner

ANNEX-A

DECLARATION OF DISPOSAL OF BASELINE EQUIPMENT UNDER PROJECT BRA/12/G76 – (POLYURETHANE)

Under Project BRA/12/G76, POLYURETHANE INDÚTRIA E COMÉRCIO LTDA., the CONTRACTOR hereby declares that it has disposed the baseline equipment as identified in the approved Project Document for BRA/12/G76 – POLYURETHANE as follows:

DISPOSAL OF BASELINE EQUIPMENT UNDER PROJECT BRA/12/G76 – (CONTRACTOR)						
Equipment Description	Year and Model	Equip- ment ID#	Method of Disposal	Year of disposal	Implement ed By	Verified By
Blending Tank	2005	n/a	3	2017	Contractor	IA

1. Physical Destruction/Dismantling/Rendering Unusable with HCFCs
2. Decommissioning and Storage
3. Retrofitting
4. No action

Under project BRA/12/G76 – POLYURETHANE, the Contractor declares as below:

- (1) That it has carried out the disposal of the baseline equipment as tabulated above, so as to render the equipment unusable with HCFCs, applying the process described below:

Brief description of the disposal process:

- Retrofit of foaming related equipment.



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- (2) That it, in the event that any equipment is decommissioned and retained in storage by the Contractor, it will not use it with any HCFCs and it will not sell or surrender the custody of this equipment except to a designated authority so assigned by UNDP and/or the Government. Justification (as mandatorily required) for retaining this baseline equipment is provided by the Contractor below:

Justification for retaining the baseline equipment:

- N/A

- (3) That it will not resume the use of any HCFC or other Ozone Depleting Substance (ODS) in its manufacture of Polyurethane Foam as per Term of Commitment signed on April 24th, 2017.

In agreement:

CONTRACTOR

Marcílio Adorno Araújo Dias

Marcílio Adorno Araújo Dias
Business Partner

GOVERNMENT

Magna L. Ludovice

Magna Ludovice
National Ozone Unit Officer

It is hereby verified that a review, undertaken with all due diligence, of the information made available to UNDP revealed no discrepancies in the aforementioned representations with which UNDP, therefore, agrees,

UNDP

Miguel Wenceslau Quintero

Miguel Quintero, Engineer

ANNEX-B

END-USERS CONVERTED UNDER POLYURETHANE'S GROUP PROJECT

Nº	End User	Location	Start-up Date	A5 Capital	Baseline equipment information						
					Type (High/Low /Manual)	Brand	Model	Year	Equipment ID	Method of Disposal	
1	Isotal Isolamentos Térmicos e Acústicos Ltda.	Belo Horizonte/MG	22/05/1996	Yes	HPD	Pumer	SDP-4038	2005	4.0.05.05	3	Retrofit of equipment.
					LPD	Pumer	PP100	1998	115	3	Retrofit of equipment.
2	Contérmica Indústria, Comércio e Serviços Ltda.	Rio de Janeiro/RJ	17/09/2001	Yes	HPD	Pumer	GREEN 2000	2003	3.0.03.35	3	Retrofit of equipment.
					HPD	Pumer	GREEN 2000	2003	3.0.03.36	3	Retrofit of equipment.
3	SIFC - Serviços de Isolamento, Funilaria e Comércio Ltda.	Duque de Caxias/RJ	15/07/1992	Yes	HPD	Pumer	GREEN 2000	2002	3.1.02.06	3	Retrofit of equipment.
					HPD	Pumer	GREEN 2000	2002	3.1.02.07	3	Retrofit of equipment.
					HPD	Pumer	GREEN 2000	2002	3.1.02.08	3	Retrofit of equipment.
					LPD	Pumer	PP100	1995	72	3	Retrofit of equipment.
					LPD	Pumer	PP100	1993	35	3	Retrofit of equipment.
4	Ala Indústria de Aquecedor Solar e Comércio de Materiais de Construção, Roupas e Acessórios	Sete Lagoas/MG	28/08/1991	Yes	LPD	Pumer	PP100	2006	271	3	Retrofit of equipment.
5	Arksol Indústria e Comércio Ltda.	Belo Horizonte/MG	05/01/1987	Yes	LPD	Pumer	PP100	2004	227	3	Retrofit of equipment.

6	Aquecemax Energia Solar Eireli	Belo Horizonte/MG	20/09/2004	Yes	LPD	Pumer	PP100	2004	212	3	Retrofit of equipment.
7	Ecol Aquecedores Solar Ltda.	Itaúna/MG	24/11/1998	Yes	LPD	Pumer	PP100	2005	232	3	Retrofit of equipment.
8	SAS Sistemas de Aquecimento Solar Indústria e Comércio Ltda.	Paraopeba/MG	21/12/2001	Yes	LPD	Pumer	PP100	2002	196	3	Retrofit of equipment.
9	Termotron Sistemas de Aquecimento Eireli	Pedro Leopoldo/MG	16/03/1971	Yes	HPD	Pumer	GREEN 2000	2003	3.0.03.19	3	Retrofit of equipment.
					LPD	Pumer	PP100	1998	126	3	Retrofit of equipment.
10	Santos Franca Empreendimentos Eireli	Ibirité/MG	18/06/2007	Yes	LPD	Pumer	PP100	2007	283	3	Retrofit of equipment.
11	Hidrotérmica Indústria e Comércio Ltda.	Sete Lagoas/MG	08/04/2002	Yes	LPD	Pumer	PP100	2003	209	3	Retrofit of equipment.
12	Alternativa Solar Ltda.	Ponte Nova/MG	22/09/1999	Yes	HPD	Pumer	GREEN 2000	2004	3.1.04.11	3	Retrofit of equipment.
					LPD	Pumer	PP100	2000	167	3	Retrofit of equipment.
13	Isolações Térmicas e Montagens Termobras Ltda	São Paulo/SP	04/01/1975	Yes	LPD	Transtécnica	15kg	1999	n/d	3	Retrofit of equipment.
14	Aquesol Indústria de Aquecimento Solar Ltda.	Lajeado/RS	22/02/1990	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
15	Modelagem Ideal Ltda (JMS)	Campinas/SP	18/07/1997	Yes	HPD	Sulpol	30 kg	2002	283	3	Retrofit of equipment.
16	Poly Urethane Indústria e Comércio Ltda.	Ibirité/MG	27/03/1978	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
17	LBN Equipamentos de Pesca Ltda. ME	Piúma/ES	19/05/1995	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
18	Casa da Resina Ltda.	Belo Horizonte/MG	22/08/1979	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
19	Montele Indústria de Elevadores Ltda.	Contagem/MG	03/11/1982	Yes	LPD	Pumer	S100	n/a	2020	4	Retrofit of equipment.

20	Resinplast Ind. E Com de Fibras Ltda. ME	Belo Horizonte/MG	25/04/2006	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
21	Isoinox Indústria e Comércio Ltda.	Belo Horizonte/MG	18/10/2000	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
22	Refrigeração Iceberg Ind. E Com. Ltda.	Contagem/MG	26/05/1993	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
23	Perfilados São Jorge Ltda.	Contagem/MG	21/07/1988	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
24	Impresol Serviços Gerais Ltda. ME	Porto Alegre/RS	27/11/1997	Yes	HPD	Pumer	P1000	2003	2.0.03.18	3	Retrofit of equipment.
				Yes	HPD	Gusmer	H2000	2004	n/d	3	Retrofit of equipment.
25	Marco Célio Moraes Valenzuela - EIRELI	Belo Horizonte/MG	30/05/1992	Yes	HPD	Tecusi	TE20	2001	n/d	3	Retrofit of equipment.
26	Beverager Equipamentos e Bebidas Ltda.	Contagem/MG	15/06/1998	Yes	LPD	Pumer	PP100	2005	204	3	Retrofit of equipment.
27	Dinox Indústria e Comércio Ltda.	Coronel Fabriciano	23/10/1997	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
28	Carrocerias Heringer Ltda.	Governador Valadares	02/05/1986	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
29	Imep Indústria Mecânica Pompéia Ltda.	Pompéia/SP	16/10/1973	Yes	LPD	Pumer	PP100	2005	265	3	Retrofit of equipment.
30	Isominas Indústria e Comércio de Isopainéis e Refrig. Ltda.	Ribeirão das Neves/MG	21/11/2005	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
31	Isotran Isolamentos Térmicos e Montagens Ltda.	Rio de Janeiro/RJ	18/08/1981	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
32	Lesfri Indústria e Comércio de Montagens Comerciais Ltda. EP	Juiz de Fora/MG	03/11/1998	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
33	MIB Indústria e Comércio de Carrocerias Ltda.	Itaquaquecetuba/SP	06/06/2005	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
34	Pizzolo Refrigeração Ltda. ME	Ubá/MG	03/12/1986	Yes	LPD	Pumer	PP100	2005	232	3	Retrofit of equipment.

35	ABAV Abatedouro Atílio Vivacqua Ltda. ME	Atílio Vivacqua/ES	11/11/1998	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
36	Braiso Isolamentos Termo-Acústicos Ltda.	Contagem/MG	13/10/1998	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
37	Bunker Comercial Ltda.	Piracicaba/SP	11/06/1999	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
38	Emerson Henrique Cassiotti - ME	Catanduva/SP	30/05/2005	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
39	Equipoman Manutenção Ind. E Serv. Ltda.	São João de Meriti/RJ	06/02/1995	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
40	Freeart Indústria e Comércio Ltda.	Contagem/MG	09/03/1995	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
41	Frigeral Ltda.	Contagem/MG	06/02/1973	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
42	Gilmar de Moraes Lopes ME	São João da Barra/RJ	31/10/1989	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
43	Gotherma Isolantes Térmicos Importação e Exportação Ltda.	Sertãozinho/SP	12/02/1991	Yes	HPD	Pumer	GREEN 1000HP	2002	2.1.03.02	3	Retrofit of equipment.
					LPD	Pumer	S100LP	2003	n/d	3	Retrofit of equipment
44	Isocompany Isolamentos Térmicos e Acústicos Ltda.	Matozinhos/MG	31/11/2005	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
45	Isofrios Prestadora de Serviços e Comércio Ltda. ME	Contagem/MG	23/04/2007	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
46	J. R. Novaes Neto ME	Araputanga/MT	22/03/1999	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
47	Junges Refrigeração Ltda.	São José do Cedro/SC	22/09/1966	Yes	HPD	Pumer	GREEN 2000HP	2002	3.0.02.02	3	Retrofit of equipment.
48	Minas Indústria e Comércio de EPS Ltda.	Ibirité/MG	31/05/2006	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
49	PMMI Projetos, Montagens e Manutenção Industrial Ltda.	Uberlândia/MG	02/11/2000	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase

50	SDS Ind. E Com. De Equipamentos Art. Inox Ltda.	Belo Horizonte/MG	27/10/2006	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
51	Sulcompany Refrigeração Ltda.	Caxias do Sul/RS	22/11/2005	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
52	Clovis Exteckoetter ME	Itaquirai/MS	09/10/1997	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
53	Ser-therm Terceirização e Comércio Ltda	São Paulo/SP	22/10/1992	Yes	HPD	Pumer	GREEN 1000	2002	2.0.02.01	3	Retrofit of equipment.
					HPD	Pumer	GREEN 1000	2002	2.0.02.02	3	Retrofit of equipment.
					HPD	Pumer	GREEN 1000	2002	2.0.02.03	3	Retrofit of equipment.
54	Montagem Industriais Chapecó Ltda.	Chapecó/SC	03/08/2004	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase
55	Chama Indústria, Comércio e Instalações Ltda.	Diadema/SP	03/04/1986	Yes	Manual	n/a	n/a	n/a	n/a	4	Dispenser purchase

Method of Disposal

1. Physical Destruction/Dismantling/Rendering Unusable with HCFCs
2. Decommissioning and Storage
3. Retrofitting
4. No action

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n/d - When the data survey was made, this equipment had no serial number identification.