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ENVIRONMENTAL TECHNOLOGIES AND SYSTEM ENGINEERING



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Subject:

UNIDO Project MP/IRA/96/041 - Contract no. 96/104; FARIZ IRAN CO.

To the kind attention of:

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
P.O. Box 300, A-1400 Vienna, Austria / Ms. Mounira Latrech, Contracts Officer

DOCUMENTS TRANSMITTAL no. FARIZ IRAN t 0607

Pos	Doc. No.	Description		
1	FR00/101/ES	FINAL REPORT – CONVERSION OF FARIZ IRAN COMPANY TO PHASE OUT THE USE OF CFC-11 IN THE PRODUCTION OF DOMESTIC REFRIGERATORS AND FREEZERS		
2	-	ACCEPTANCE PROTOCOL – ATTACHMENT TO THE FINAL REPORT		
3	Mod. AA 97 09 002	SAFETY STATEMENT (IN THREE ORIGINALS)		

BONO SISTEMI S.p.A. Ing. Sacha Scimone

	Job. N.	229622003	Doc. N.	FR00/101/ES
	Customer	U.N.I.D.O.	Rev.	0
polyurethane technology	Plant	FARIZ IRAN Co.	Sh	1 /5
		25 Taleghani ave., 15918 TEHRAN		
		U.N.I.D.O. PROJECT MP/IRA/96/041		
		CONTRACT NO. 96/104		

FINAL REPORT

CONVERSION OF FARIZ IRAN COMPANY TO PHASE OUT THE USE OF CFC-11 IN THE PRODUCTION OF DOMESTIC REFRIGERATORS AND FREEZERS

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0	30/06/2000	Final issue	S.Scimone		
Rev.	Date	Description	Prepared	Checked	Approved

	Job. N.	229622003	Doc. N.	FR00/101/ES
	Customer	U.N.I.D.O.	Rev.	0
polyurethane technology	Plant	FARIZ IRAN Co.	Sh	2 /5
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		CONTRACT NO. 96/104		

SUMMARY

1.0	INTRODUCTION	. 3
2.0	LAY OUT OF THE PLANT, TECHNICAL DOCUMENTATION (STEE	S
	1 AND 2 OF THE TOR)	3
3.0	DELIVERY OF THE EQUIPMENT (STEP 5 OF THE TOR)	. 3
4.0	INSTALLATION AND COMMISSIONING (STEP 6 OF THE TOR)	. 4
5.0	TRIAL PRODUCTION AND TEST RUN PRODUCTION (STEPS 7 AN	/ D
	9 OF THE TOR)	. 4
6.0	SAFETY CERTIFICATION (STEP 10 OF THE TOR)	. 5
7.0	FINAL REPORT (STEP 11 OF THE TOR)	5

	Job. N.	229622003	Doc. N.	FR00/101/ES
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		CONTRACT NO. 96/104		

1.0 INTRODUCTION

With the present document the Contractor wants to describe the works performed at the plant site for the conversion of FARIZ IRAN to phase out the use of CFC-11 in the production of domestic refrigerators and freezers.

The activities performed under this contract are briefly listed hereafter, accordingly to the TOR (Terms of Reference).

2.0 LAY OUT OF THE PLANT, TECHNICAL DOCUMENTATION (STEPS 1 AND 2 OF THE TOR)

After award of the order the Contractor visited the Counterpart in order to verify the conditions of the site and to identify the best engineering solutions for the conversion of the existing foaming lines.

During the visit the Contractor discussed the following main subjects:

- A. Technical details regarding the supply of the equipment; particulare care has been pointed on the premix units, the polyol/cyclopentane blend and the isocyanate modules, the safeties of the plant (i.e.: gas sensors, ventilation groups, cyclopentane storage tank and relevant accessories).
- B. The suitable site where the new equipment had to be installed.
- C. The required modification to the new lay-out.

3.0 DELIVERY OF THE EQUIPMENT (STEP 5 OF THE TOR)

The delivery on site and the opening of the crates has been done accordingly to the Progress Report dated 25th of November 1997.

	Job. N.	229622003	Doc. N.	FR00/101/ES
polyurethane technology	Customer	U.N.I.D.O.	Rev.	0
	Plant	FARIZ IRAN Co.	Sh	4 / 5
		25 Taleghani ave., 15918 TEHRAN		
		U.N.I.D.O. PROJECT MP/IRA/96/041		
		CONTRACT NO. 96/104	,	

4.0 INSTALLATION AND COMMISSIONING (STEP 6 OF THE TOR)

The Contractor's engineers followed the installation phase by supervising the activities that have been done by the Counterpart.

Following zones of the plant have been inspected many times by the Contractor:

- Cyclopentane storage tank area
- □ Wet area
- Process chemicals connecting pipes between wet and dry area
- Foaming area

The commissioning and the on-the-job training has been done with D.O.P. as for the acceptance protocol attached to the 2nd progress report dated 30th of November, 1998.

5.0 TRIAL PRODUCTION AND TEST RUN PRODUCTION (STEPS 7 AND 9 OF THE TOR)

After the installation and the D.O.P. commissioning phase the Contractor assisted the Counterpart In the design of the first prototype.

The trial production of the remaining models has been done with cyclopentane as blowing agent while our technicians were on site.

Find attached the acceptance protocol signed by the Counterpart, dated 21st of May, 2000.

	Job. N.	229622003	Doc. N.	FR00/101/ES
	Customer	U.N.I.D.O.	Rev.	0
polyurethane technology	Plant	FARIZ IRAN Co.	Sh	5 /5
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		U.N.I.D.O. PROJECT MP/IRA/96/041		
	Ì	CONTRACT NO. 96/104]

6.0 SAFETY CERTIFICATION (STEP 10 OF THE TOR)

The Contractor states that the equipment supplied is in accordance with the standards of quality and safety and the codes in use in the European Countries of origin at the time of purchasing.

Find attached the Safety Statement Form for the above.

7.0 FINAL REPORT (STEP 11 OF THE TOR)

The Contractor, by means of the transmission of this Final Report, carried out all the contractual agreements as for the Terms of Reference.

Afros S.p.A.
Gruppo CENNON

DICHIARAZIONE DI COLLAUDO & ACCETTAZIONE MACCHINARIO

Afros SpA Callinoln polyurethane technology

Modulo M-ASS-05 - Rev. 1 del 09/10/96

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. partita I.V.A. 00816070122 - Cod. Fisc. 00220520126

	•
Collaudo eseguito da: Start-up carried out by: Pozzi Enric	in data: on: 21/05/2000
Cliente: FARIZ IRAN	
Sede in: Address: TEHRAN	
Alla presenza di: At the presence of: Mr. Amir pour	
Contract N°: 96/104	
Conferma d'ordine n.: Order confirmation n.:	
Matricola Macchina n.: Serial n. of the machine: PM 100 TWin 29088	31 Asys 100 PRT PFE 290880/550631
In data odierna è fato completato il collaudo del macchinario sopra , menzionato. Il macchinario è stato trovato conforme al contratto e se ne accetta il li- vello funzionale ai fini dell'inizio del periodo di garanzia.	Under today's date, the commissioning of the a.m. machinery has been completed. The trachinery has been found in compliance with the above mentioned contract and the functionning leve has been accepted in order to start the guarantee period.
FIRMA AFROS / AFROS SIGNATURE	FIRMA CLIENTE / CUSTOMER SIGNATURE Zamuni
Eventuali osservazioni soi	no qui di seguito riportate:
	cue mentioned machines were But according to Tuv report completed yet and Cannon egwired security 30b) ogas tankonly. Zamani
FIRMA AFROS / AFROS SIGNATURE	FIRMA CLIENTE / CUSTOMER SIGNATURE

SAFETY STATEMENT

CANNON GROUP

CERTIFIES THAT THE EQUIPMENT SUPPLIED WITHIN

CONTRACT NO. 96/104 U.NI.D.O. PROJECT MP/IRA/96/041

FOR THE CONVERSION OF THE EXISTING PRODUCTION PLANT IN

FARIZ IRAN

TO USE CYCLOPENTANE AS BLOWING AGENT

IS IN ACCORDANCE WITH THE STANDARDS AND THE CODES OF THE COUNTRIES OF ORIGIN OF THE GOODS

CANNON GROUP

Peschiera B. (MI), 27.06.2000