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## OCCASION

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**Riviera S.r.l.**

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**Contract 95/114**

Conversion of Aleppo and Damascus factories of Penguin Syrian Batric Co. to phase-out the use of CFC-11 and 12 in the production of domestic appliances.

Messrs. **UNIDO**

Contracts Unit, P & C, OPD  
Kind attention  
**Mr V. Bysyuk**  
**Mr V. Koloskov**

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*Please find herebelow a brief compendium of the activities and services under the above mentioned Contract, following our de-briefing meeting at Your headquarters in Vienna on 03.12.97. Please add this **Final Report** to the documentation on the Project, already at Your side.*

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Dear Sirs,

after the awarding of the Contract, on 16.08.95, we visited the Plants sites in september '95, and finalized the list of equipments and services to be provided, agreed on all civil and preparatory works to be done by the Counterpart and, generally, listed all major requirements for the proper implementation of the Project.

Upon our return, we started to work on the whole conversion methodology, including final lay-outs of the converted plants, final technical specifications and documentation, commissioning of the equipments, final working schedule and travelling program of our technicians, advice on the cooling cycle re-design of the Counterpart's models etc...

This was done in constant collaboration with the Unido and the Counterpart, with whom we had regular exchange of correspondance and communication.

The Counterpart shipped to us a series of samples of their models to be tested and converted, which were the base for our prototype program at our laboratories in Varese and, then, in Syria.

We received several visits from the Counterpart's officers, who were constantly updated on the progress of the Project, attended practical tests and were trained and instructed on our general methodology.

As You remember and as evidenced in our previous Reports, all the activities proceeded smoothly until the shipping of the equipments, which took place in february/march '96 (test equipments and refrigeration service) and october '96 (foaming section). Unfortunately, these goods got stuck in the port of Lattakia until the spring of this year, due to various reasons, most of them to be

related to the Custom Authorities of Syria who were not prepared to deal with the Project which, in fact, was the first Project of this kind to be implemented in this Country. Once the goods got cleared, they were transferred to the two factories and stored, there, under the supervision of our Syrian Representative. Meanwhile, the Counterpart received a complete documentation on the tests and modifications that were effected on some samples of their models.

The main points that resulted from these tests were the following :

- Determination of the charging quantities of freon R 134a compared to the previous quantities of R 12.
- Advice on how to handle the capillar tubes, due to the higher sensitivity of R 134a to moisture.
- Determination of the modified quantities of blowing agent.
- Advice was given on a series of practices we noticed during our visits to the factories, regarding their previous methodology in the assembling, fixing and welding of the units.
- A list of suppliers of new components (filters, compressors etc..) that had to be changed was given to the Counterpart.
- We provided data sheets with the achieved results and instructions on how to keep having not only the same but radically improved performances.

In june' 97 we made our final visit to the Plants sites for the inspection and approval of all preparatory works.

Upon clearance of the goods, we started the installation, test-running, starting-up and training related to the equipments included in the Contract.

The above activities were split in two separate periods, from mid-june to the end of july '97 and during september '97.

These activities were carried out in a very accurate way by our staff of specialized technicians with the collaboration of a few officers from Impianti OMS, sub-supplier for the foaming section.

Special attention was given to the safety procedures and instructions related to the use of C-Pentane.

We, also, trained the Counterpart's personnell and repeated the above mentioned tests and prototype program at their site and manufactured a series of pilot units of the converted and modified models.

In general, we had a very positive response from Penguin-Syrian Batric, we received their officers four times at our premises and we made a total of nine trips to their factories, involving 16 members of our staff in the implementation of the Project.

Both plants of Aleppo and Lattakia are, now, converted to the use of non-ODS.

A Letter of Acceptance of the works under the Contract, issued by the Counterpart on 23.09.97, is, already, in Your hands.

For further and more detailed information, please refer to our previous Reports and to the whole documentation, already at Your side, or to the documentation given to the Counterpart.

We remain at Your complete disposal and await further instructions.

Thank You very much and best regards.

**Riviera S.r.l.**

Antonio Forni

Projects' coordinator

A handwritten signature in black ink, appearing to read 'Antonio Forni', written over the typed name and title.