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INDUSTRIAL AUTOMATIONS

ENGINEERING

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March, 24, 2000

United Nations Industrial Development Organization (Unido) Att: Mr. V. Koloskov, Contracts Officer General services branch Administrative and financial control Field operation and administration division polbox 300 A-1400 Vienna Austria

Reference: Yours: 2000/23

Durs' D 1646 dated 4/12/99

Subject: project no.mp/syr/94/412, "pashing-out cfc at Al Hafez" Final Progress Report

This is to confirm that on Tuesday 23rd of March 2000, our team have completed the works under the contract no. 2000/23. We have checked all installed equipments and systems together with Al Hafez engineers and got their confirmation that all these new equipments and systems are working in good condition and no interruption is caused to the available syetsms that were installed under UNIDO project mp/syr/94/412 for phasingout cfc at Al Hafez two factories.

To specify the completed works, please find attached list of completed works and test run, full load that were carried-on:

Hoping this will meet your needs for this project.

With our best regards



following:

INDUSTRIAL AUTOMATIONS -

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## <u>List of Completed Works</u>

days, inspection and checking the

FINALIZED WORKS

Inspection on site at Al-Hafez factory in Syria. Visit of three (3) engineers for a period of

- Leak detector and related systems

Inspection on site at Safa factory in Syria.

Visit of two (2) engineers for a period of two (2) days, inspection and checking the following:

- Existing safety systems

Fire protection systemsOther related systems.

- Existing safety systems

- Electrical networks

- Electrical networks - Water networks

Ventilation channelsAir flow systems

|      | )at  | 6               |
|------|------|-----------------|
| Feb. | 7.   | 2000            |
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| , с. | 10,  | 2000            |
|      |      |                 |
|      | Feb. | Pati<br>Feb. 7. |

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Completion

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Water networks
Ventilation channels
Air flow systems
Leak detector and related systems
Fire protection systems
Other related systems

Study and evaluation of technical documentation that was received from Al-Hafez co. on Feb.8.2000 related to Al-Hafez factory for:

Existing safety systems
Water supply systems,
Pressurized air networks,
Ventilation/ air channels systems,
Electrical networks,
Fire protection systems and specifications,



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## <u>List of Completed Works</u>

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|--|------|--------------|-----------|
| FINALIZED WORKS  | 1    | nple<br>Dati | tion<br>e |
| Standby generators networks & specifications,<br>Piping systems<br>Factories plan and diagrams   |      |              |           |
| Study and evaluation of technical documentation that was received from Al-Hafez co. on Feb.10.2000 related to Safa factory for:    water supply systems,    pressurized air networks,    ventilation/ air channels systems,    electrical networks,    fire protection systems and specifications,    standby generators networks & specifications,    piping systems    factories plan and diagrams | Feb. | 17.          | 2000      |
| Review of TUV safety inspection report and commission lists that were prepared for Al-Hafez factory in addition to various correspondences between Al-Hafez co. and TUV. These documents were received from Al-Hafez co. on Feb. 8. 2000   | Feb. | 14.          | 2000      |
| Review of TUV safety inspection report and commission lists that were prepared for Safa factory in addition to various correspondences between Al-Hafez co. and TUV. These documents were received from Al-Hafez co. on Feb.12.2000  | Feb. | 14.          | 2000      |
| Visit to Al-Hafez factory to review some sections at foaming areas.  | Feb. | 17.          | 2000      |



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|---|--------------------|--|--|
| FINALIZED WORKS   | Completion<br>Date |  |  |
| Finalizing of report/list including the modification and works that should be accomplished at production sections to fulfill international, TUV and Syrian safety standards for Al-Hafez factory. | Feb. 21. 2000      |  |  |
| Completion of report/lists including the modification and works that should be accomplished at production sections to fulfill international, TUV and Syrian safety standards for Safa factory.    | Feb. 21. 2000      |  |  |
| Preparation of engineering report for projected modifications of electrical and mechanical engineering design at Al-Hafez factory.  | Feb. 21. 2000      |  |  |
| Preparation of engineering report for projected modifications of electrical and mechanical engineering design at Safa factory.  | Feb. 21. 2000      |  |  |
| Preparation of a list of necessary missing safety equipment/instruments and expandable materials at Al-Hafez factory.   | Feb. 22. 2000      |  |  |
| Preparation of a list of necessary missing safety equipment/instruments and expandable materials at Safa factory.   | Feb. 21. 2000      |  |  |
| Visit to Al-Hafez factory to coordinate with their engineers to prepare their production lines to proceed with our works without suspending their production.                                     | Feb. 23. 2000      |  |  |



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## List of Completed Works

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|---|------|------------|-------|--|
| FINALIZED WORKS   |      | Completion |       |  |
|   |      | Date       | ⊇     |  |
| Supervision and participation in practical modification of existing electrical and mechanical equipment, instrumentation, supplying supporting and safety systems and instrumentation according to the report and list of modification that we was prepared for Al-Hafez factory. | Feb. | 26.        | 2000  |  |
| Visit to Safa factory to coordinate with their engineers to prepare their production lines to proceed with our works without suspending their production.   | Feb. | 23.        | 2000  |  |
| Supervision and participation in practical modification of existing electrical and mechanical equipment, instrumentation, supplying supporting and safety systems ad instrumentation according to the report and list of modification that we was prepared for Safa factory.      | Feb. | 26.        | 2000  |  |
| Installation of complete auto-start UPS (50 KVA) and connection to the existing safety systems, ventilation/air flow systems, leak detectors, fire protection units and any new systems that were necessary to complete available safety systems at Al-Hafez factory.             | Mar. | 2.         | 2000  |  |
| Installation of complete auto-start UPS (50 KVA) and connection to the existing safety systems, ventilation/air flow systems, leak detectors, fire protection units and any new systems that were necessary to complete available safety systems at Safa factory.                 | Mar. | 6.         | 2000  |  |



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## <u>List of Completed Works</u>

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| FINALIZED WORKS   |      | ple<br>Jate | tion<br>= |
| Installation of emergency-push-buttons, monitored alarm signals, acoustic alarm signal, protection devices, metering units, horns, flashers, switches, contactors, timers, special relays and other electrical items at Al-Hafez factory. |      | 13.         | 2000      |
| Installation of emergency-push-buttons, monitored alarm signals, acoustic alarm signal, protection devices, metering units, horns, flashers, switches, contactors, timers, special relays and other electrical items at Safa factory.     | Mar. | 16.         | 2000      |
| Replacement of existing standard cables at safety circuits with special marked ones colored and labeled according to international and TUV standards at Al-Hafez factory.   | Mar. | 13.         | 2000      |
| Replacement of existing standard cables at safety circuits with special marked ones colored and labeled according to international and TUV standards at Safa factory.   | Mar. | 16.         | 2000      |
| Erection of ground-clamps for earthling of all electrical items that are connected to the existing safety systems at Al-Hafez factory.  | Mar. | 13.         | 2000      |
| Erection of ground-clamps for earthling of all electrical items that are connected to the existing safety systems at Safa factory.  | Mar. | 16.         | 2000      |



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| FINALIZED WORKS   |        | ple:<br>Date | tion<br>? |
| Expansion of safety network systems and connecting them to the control and guards rooms and erection of special alarm signals at Al-Hafez factory.      |        |              |           |
| Expansion of safety network systems and connecting them to the control and guards rooms and erection of alarm signals at Safa factory.                  | Mar.   | 22.          | 2000      |
| Providing of missing electrical/technical diagrams inside each of control panels that are related to safety and electrical systems at Al-Hafez factory. | Mar.   | 20.          | 2000      |
| Providing of missing electrical/technical diagrams inside each of control panels that are related to safety and electrical systems at Safa factory.     | Mar.   | 21.          | 2000      |
| Test run for auto-run back-up UPS system at<br>Safa factory.  | Mar.   | 21.          | 2000      |
| Test run for with full load for all installed electrical cables and equipments at Safa factory.   | Mar.   | 21.          | 2000      |
| Test run for all alarm systems (new and already available) at Safa factory.   | Mar.   | 21.          | 2000      |
| Test run for auto-run back-up UPS system at Al-Hafez factory.   | Mar. i | 22.          | 2000      |



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| FINALIZED WORKS   |      |      | Completion |  |  |
| - 1-577 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-  |      | Date | 2          |  |  |
| Test run for with full load for all installed electrical cables and equipments at Al-Hafez factory.   | Mar. | 22.  | 2000       |  |  |
| Test run for all alarm systems (new and already available) at Al-Hafez factory.   | Mar. | 22.  | 2000       |  |  |
| Assistance to Al-Hafez co. to obtain necessary certificates and permissions from the Syrian industrial safety institutes to use c-pentane at Al-Hafez and Safa factories. |      | 21.  | 2000       |  |  |
| Training of Al-Hafez personnel to operate and maintain the above mentioned new units.   | Mar. | 23.  | 2000       |  |  |
| Training of Safa personnel to operate and maintain the above mentioned new units.   | Mar. | 23.  | 2000       |  |  |

With our best regards