Plant : **Ramat Hovav 80** Part : **GT** Page 2 of 4

System / Title : **MB- Gas Turbine** Phase : **A/B**

Code / Activity **CI – MB – 01** **IGV ADJUSTMENT**

GT is equipped with a fast IGV.

1. TASK

The IGV should maintain a constant turbine exhaust temperature within a limited load range.
At loading the IGV opens and de-loading it closes. With the IGV in position "closed", the air mass flow is about 70% or 65% (Turn Down).
Maintaining the turbine outlet temperature constant is essential to operating the plant in combined cycle mode and for achieving fast load gradients (air-fuel ratio) for grid code requirements (frequency response operation).

2. Documents

Drawing: 800658-MBX9K-001-A01
Drawing: 13 – 9100 – 01405 / 025 "Fixture of Protractor"

Protocol: 3.7 – 1050 – 0001 "Checks prior to and during Start up"
Protocol: 3.7 – 0609 – 0001 "Setting the pitch of IGV's"
Remark: The angle of each single vane has to be measured at the outer diameter (see drawing) and recorded.

Information: 3.1 – 0210 "List of Control Settings" (SREL)
Information: 3.1 – 0220 "List of Measuring Instruments" (MGL)
Information: 3.1 – 0230 "List of Electrical Loads" (VEL)
Information: 3.1 – 0240 "Equipment List" (AL)

3. System Cleaning

If the compressor inlet is covered with a (wooden) protection shield it has to be removed carefully
This includes desiccants.
Do not damage blades or vanes.
Before final closing of manhole remove scaffolding, tools or other loose parts which could damage the GT.
Clean the ground floor.
The door / manhole to remain locked all the time.

2. SCOPE OF MEASUREMENTS

- **All measuring and indication equipment is prepared for operation.**
- **Alarm sequences for monitoring and emergency tripping devices are ready for use**
- **The flight recorder is installed**

Recording of at least the following process data:

- **IGV position [%]**
- **Load [MW]**
- **TOTC [°C]**
- **Compressor discharge press. [bar] (to be distinguished between in *bar* or *barabs*)**
- **Speed [rpm]**
- **Acceleration [g] and humming [mbar] values**