GEX and Aérial are pleased to offer

The Aer’EDE

EPR Dosimetry Equipment

A flexible, complete, EPR Dosimetry Solution
Aérial of France and Magnettech of Germany combine their shared experience in developing and supporting complete dosimetry systems to now offer the Aer’EDE EPR Dosimetry System.

The Aer’EDE Dosimetry System includes all measurement instrumentation, choice of alanine dosimeter(s), as well as a complete set of standard operating instructions.

On-site installation and training certification is provided as well as ongoing dosimetry training and technical support.
Aer’EDE is based on more than 15 years experience gained with the popular Aer’ODE database driven dosimetry system used with optical instruments such as the Genesys 5 or Genesys 20 used with CTA, GEX B3, FWT or Harwell dosimeters.

The Aer’EDE dosimetry equipment was developed by Aérial to fulfill requirements in ISO/ASTM standards on Dosimetry.

The Aer’EDE equipment uses EPR to measure both alanine pellet and film dosimeters for routine use in industrial irradiation facilities. The system utilizes the established and validated Aer’ODE database software platform resulting in an optimum solution that can communicate with local or wide area networks (LAN & WAN).
**Aer’EDE**

EPR Dosimetry System

**Industrial Dosimetry**

How Aer’EDE can be integrated into a plant management system

- **Dosimetry Lab.**
  - Performance Qualification Dosimetry
  - Routine Dosimetry

- **Production**
  - Radiation process parameters

- **Server**
  - Dosimetry Data Base
  - Oracle, SQL, Access Plant Data Base

- **Quality Assurance Dept.**
  - Performance Qualification Parameters
    - Loading Pattern
    - Validation Certificate

- **Certification**

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**GEX CORPORATION**

**Aérial**
The Aer’EDE equipment uses the Magnettech MS 5000 spectrometer which provides high reproducible EPR signal with very high sensitivity. The amplitude of the main peak is the response that is related to Dose.
Aer’EDE
EPR Dosimetry System

Write/Read

Read/Write

DATA EXCHANGE FILE
Aer’EDE
EPR Dosimetry System

Flexibility allows for use of any alanine dosimeter

- Pellets, rods, etc.
- Films *
- Factory Packaged

* We recommend the use of alanine pellets over alanine films when possible. (position & reproducibility)
Aer’EDE software:

- Controls the EPR equipment (settings, measurements, data storage, …)
- Performs dosimetry system calibration, graphics, process validations, dosimetry reports, …)
- Special developments and software customization provided according to user specified requirements
Aer’EDE
EPR Dosimetry System

• Registration
• Calibration
• Dosimeter Measurement
• Product Validation (PQ)
• Complete Logbook

21 CFR Part 11 Compliant
Aer’EDE
EPR Dosimetry System

SOME FEATURES AND EXAMPLE SCREENS
Aer’EDE

EPR Dosimetry System

USER REGISTRATION
Aer’EDE
EPR Dosimetry System

Dose reading and EPR Parameters
Aer’EDE Dosimetry System Calibration

EPR Dosimetry System

Calibration Chart

<table>
<thead>
<tr>
<th>Fitting mode</th>
<th>Order 1</th>
<th>Order 2</th>
<th>Order 3</th>
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Fit mode Log(F)=log(F)
Correlation R^2=1.000

Relative RMS=0.631 %
Absolute RMS=0.205 kGy
F-Ratio=73.179

GEX CORPORATION
EÁRÍAL
Aer’EDE
EPR Dosimetry System
Dosimetry System Calibration
Residuals plot

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Residual Chart

![Residual Chart Image]
Aer’EDE equipment is validated and meets the quality assurance requirements according to FDA part 11, ISO, ASTM guidance and standards.

Aer’EDE is designed to integrate efficiently to your plant network and the software can be adapted to customers requirements.