

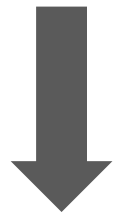
# Case Study on the Analysis of Personal Dosimetry

Energy lives here™

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# Background

- Noise assessments to support regulatory compliance
  - Use of an SLM – still used in some parts of the EU for compliance
  - Use of a Dosimeter – Lep,d
  - Use of a dosimeter – Lep,d with a graph (ability to exclude sections)
  - Use of a dosimeter with set threshold monitoring and motion detection
    - Lep,d graph and exclude based on the actual noise/sound



# Equipment

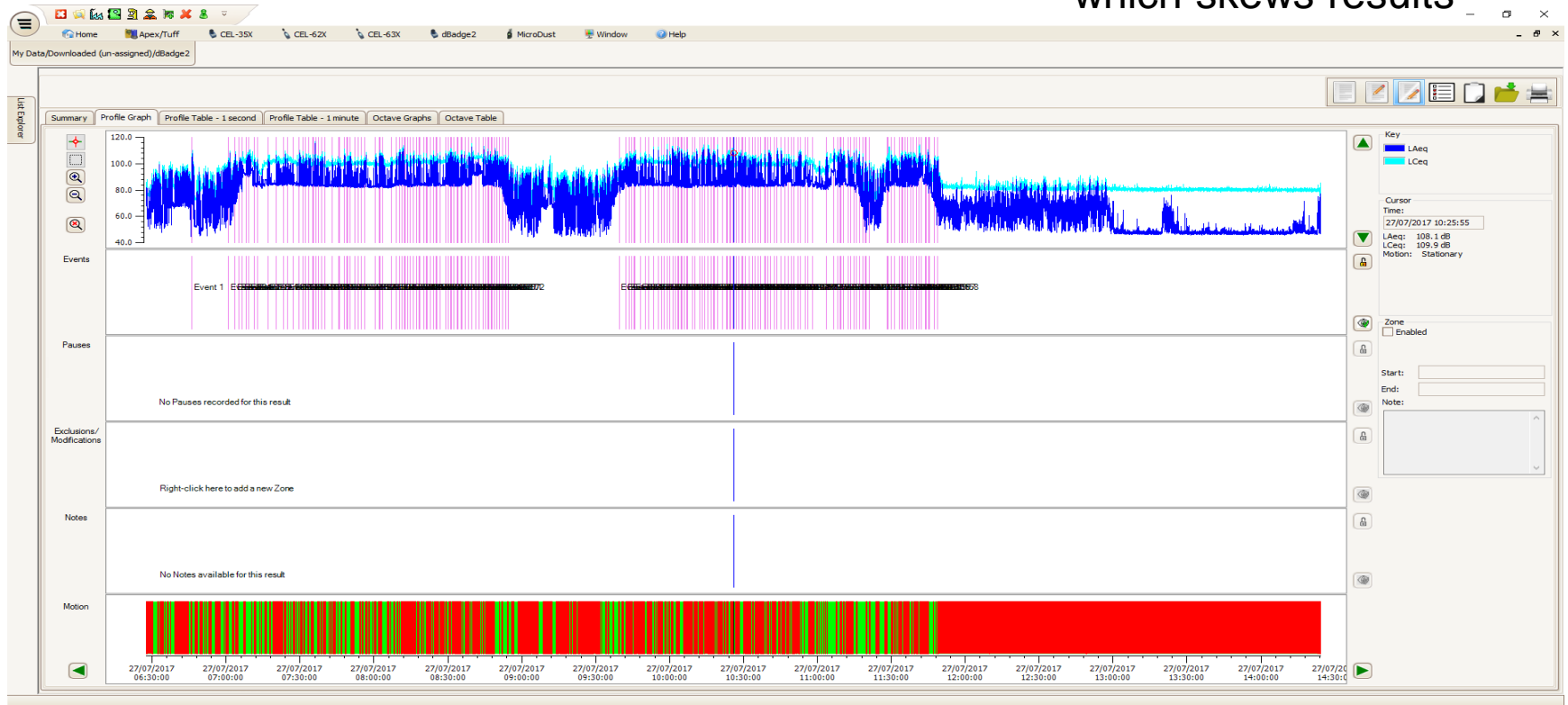
## Casella dBadge2

- Features

- Threshold Monitoring
- Motion Detection

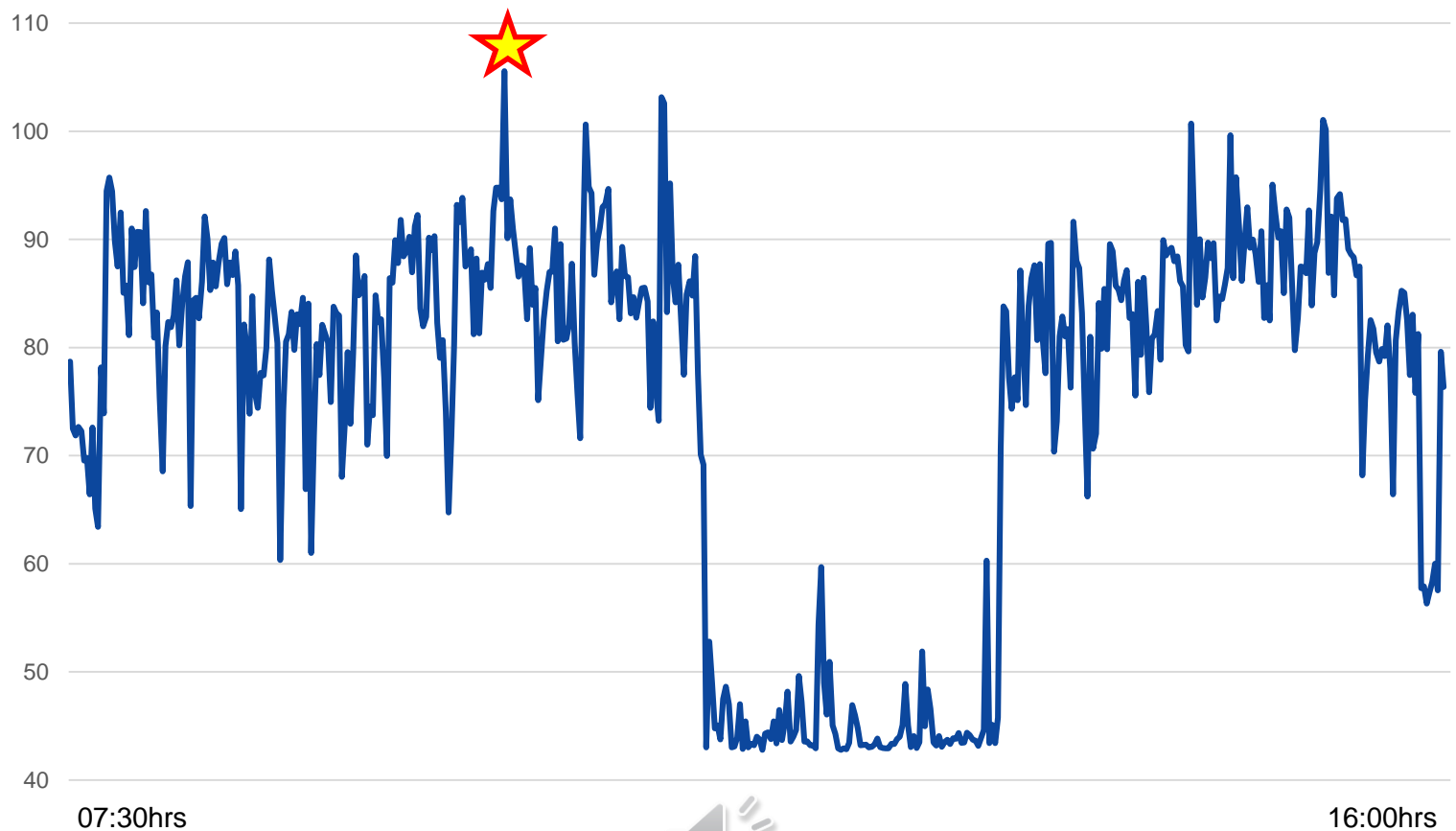
- Software

- Export audio
- Remove artificial data which skews results



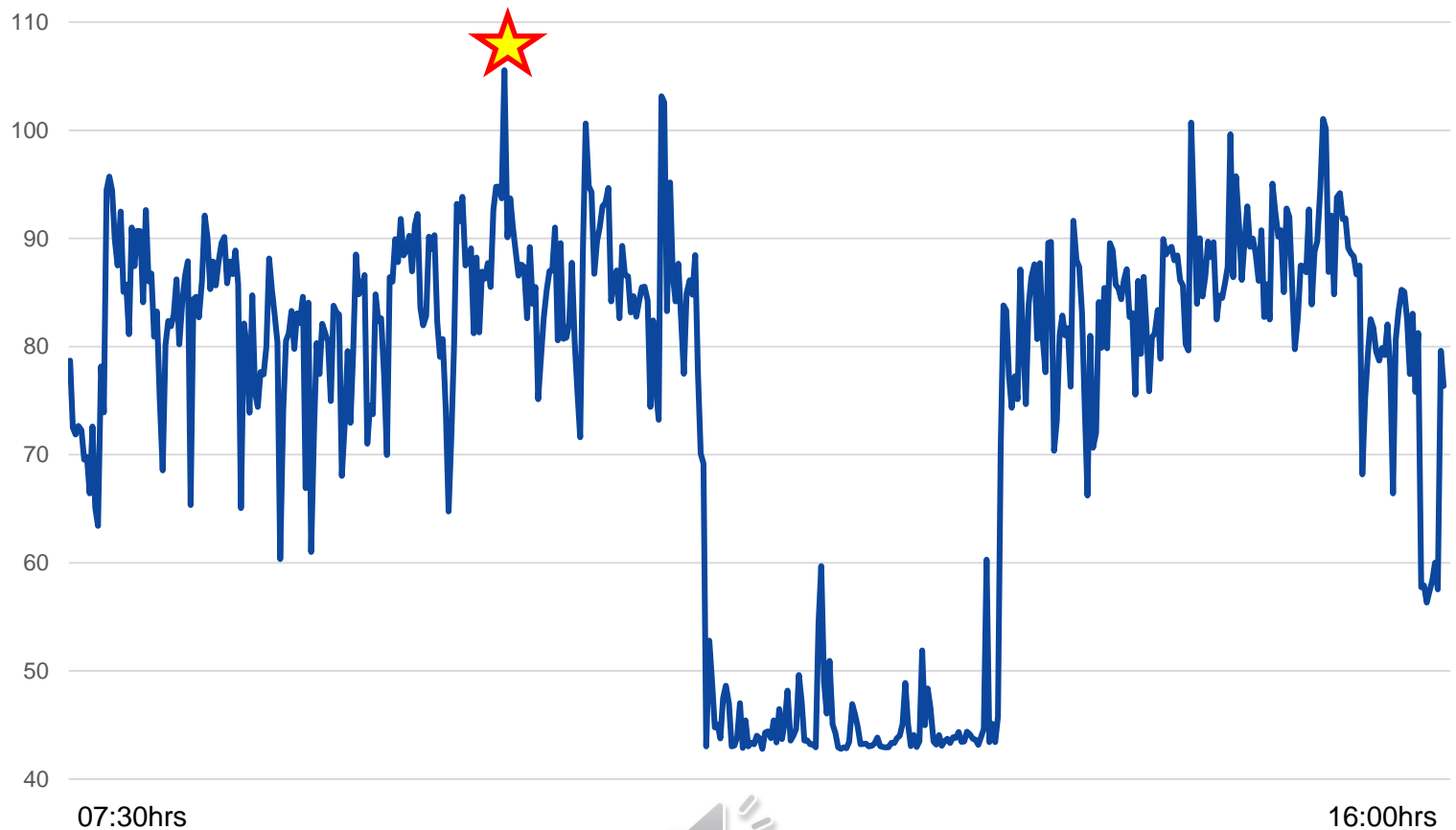
# Scenario 1

- 10 person SEG monitoring conducted
- Training a group of 15 employees outside



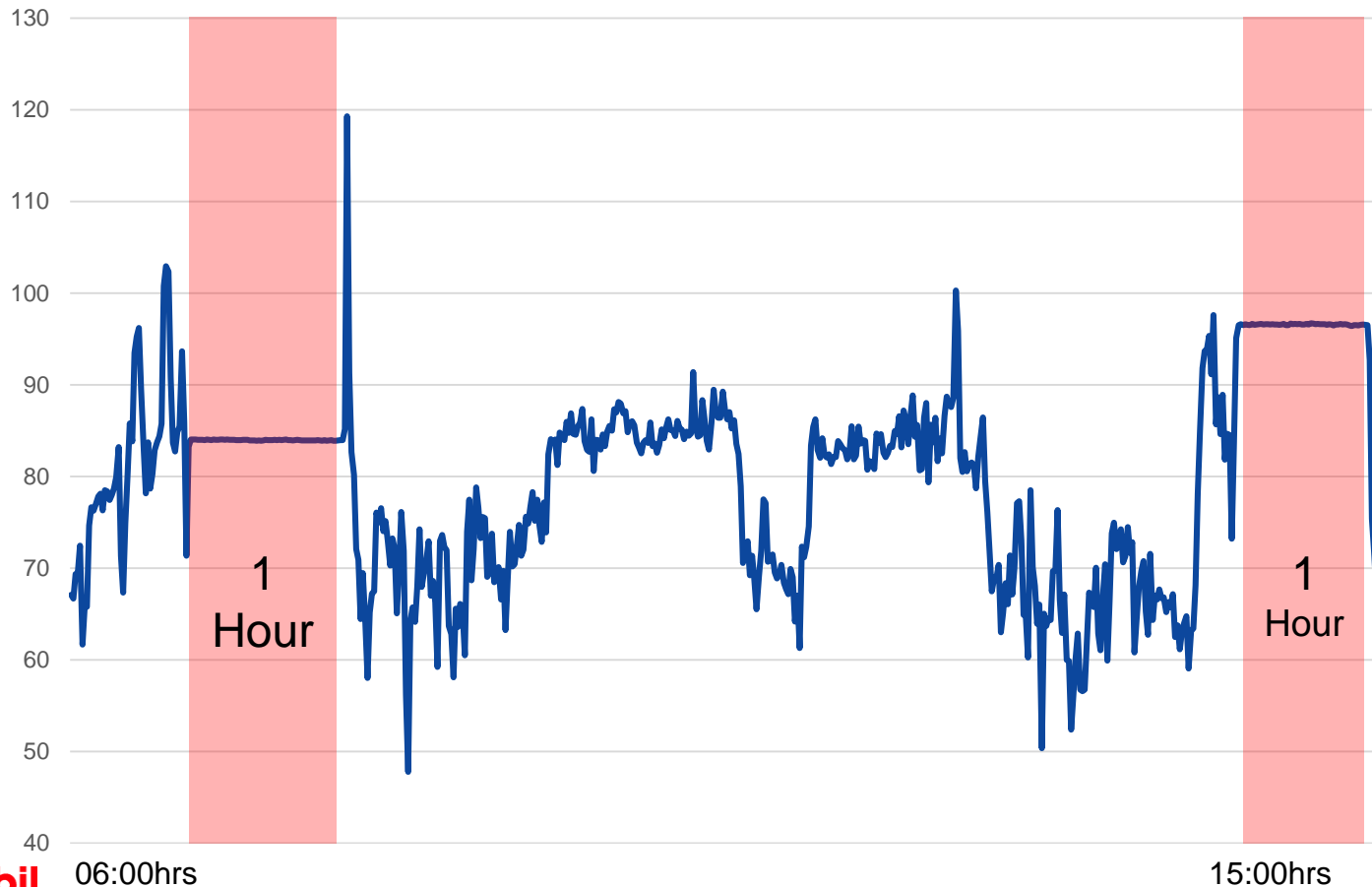
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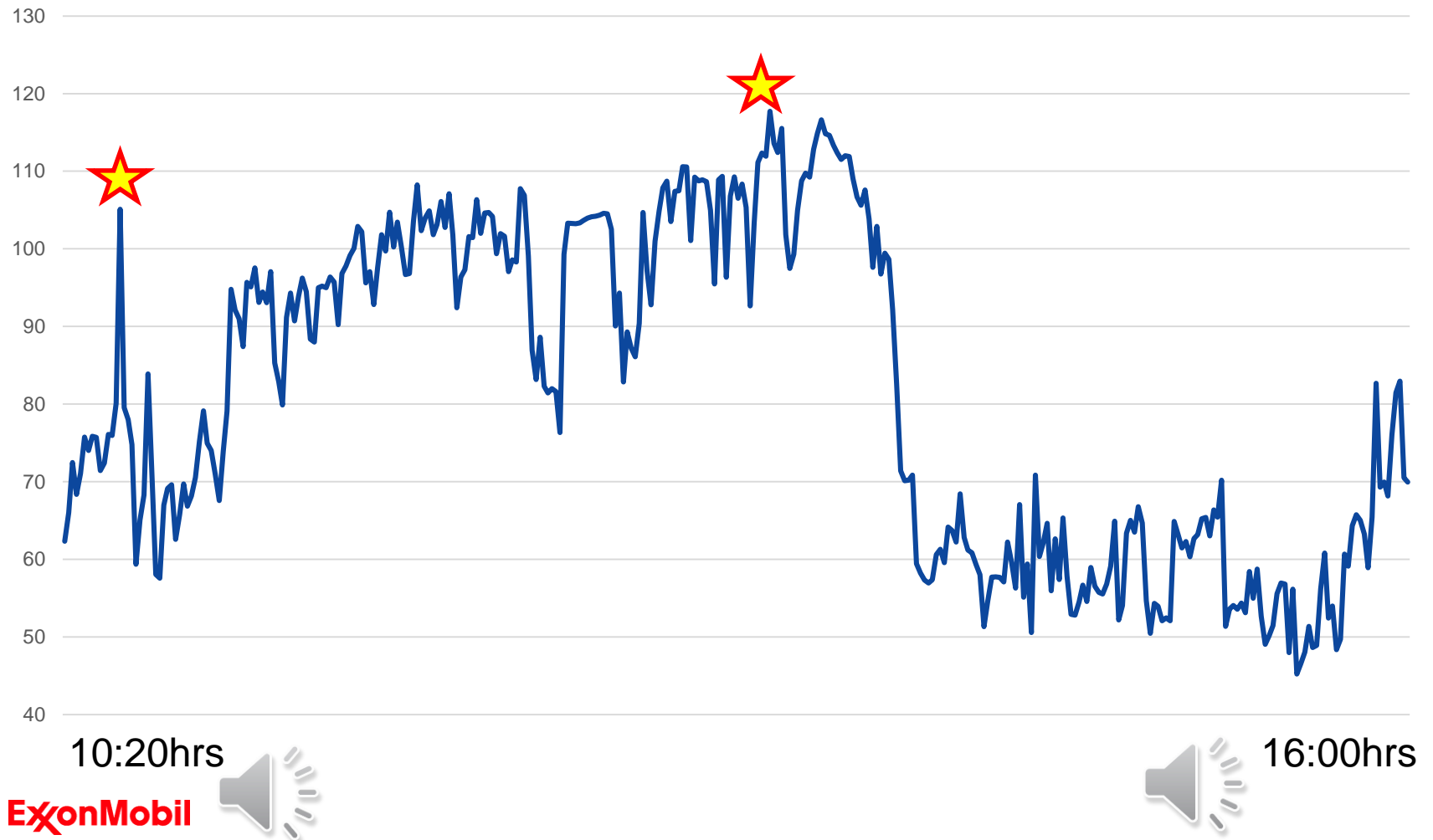
# Scenario 2

- Noise assessment in power plant.
- Data indicated no motion in the dosimeter for highlighted section



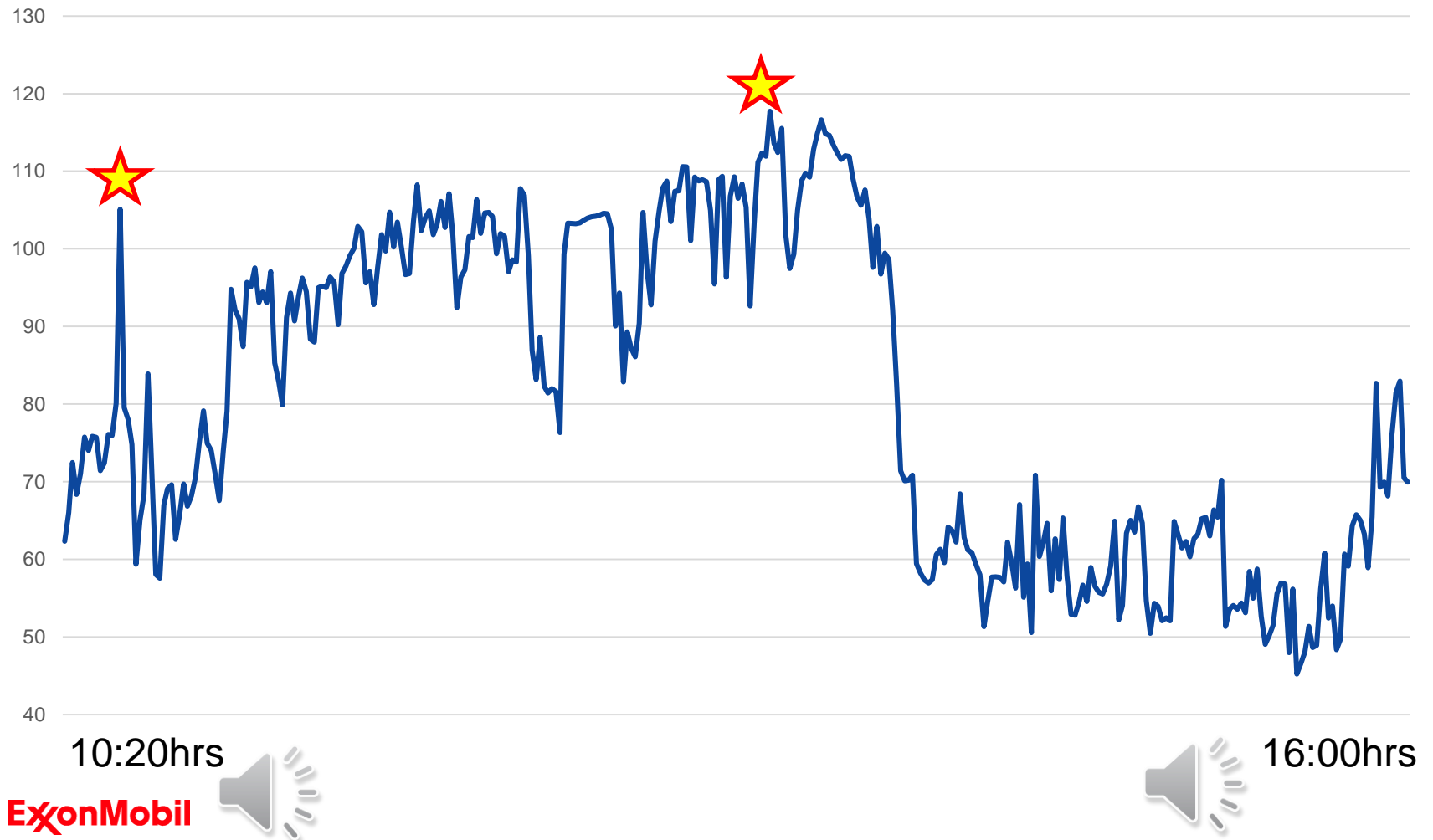
# Scenario 3

- Noise assessment during equipment start-up
- Unexpected peak at the beginning of the exposure



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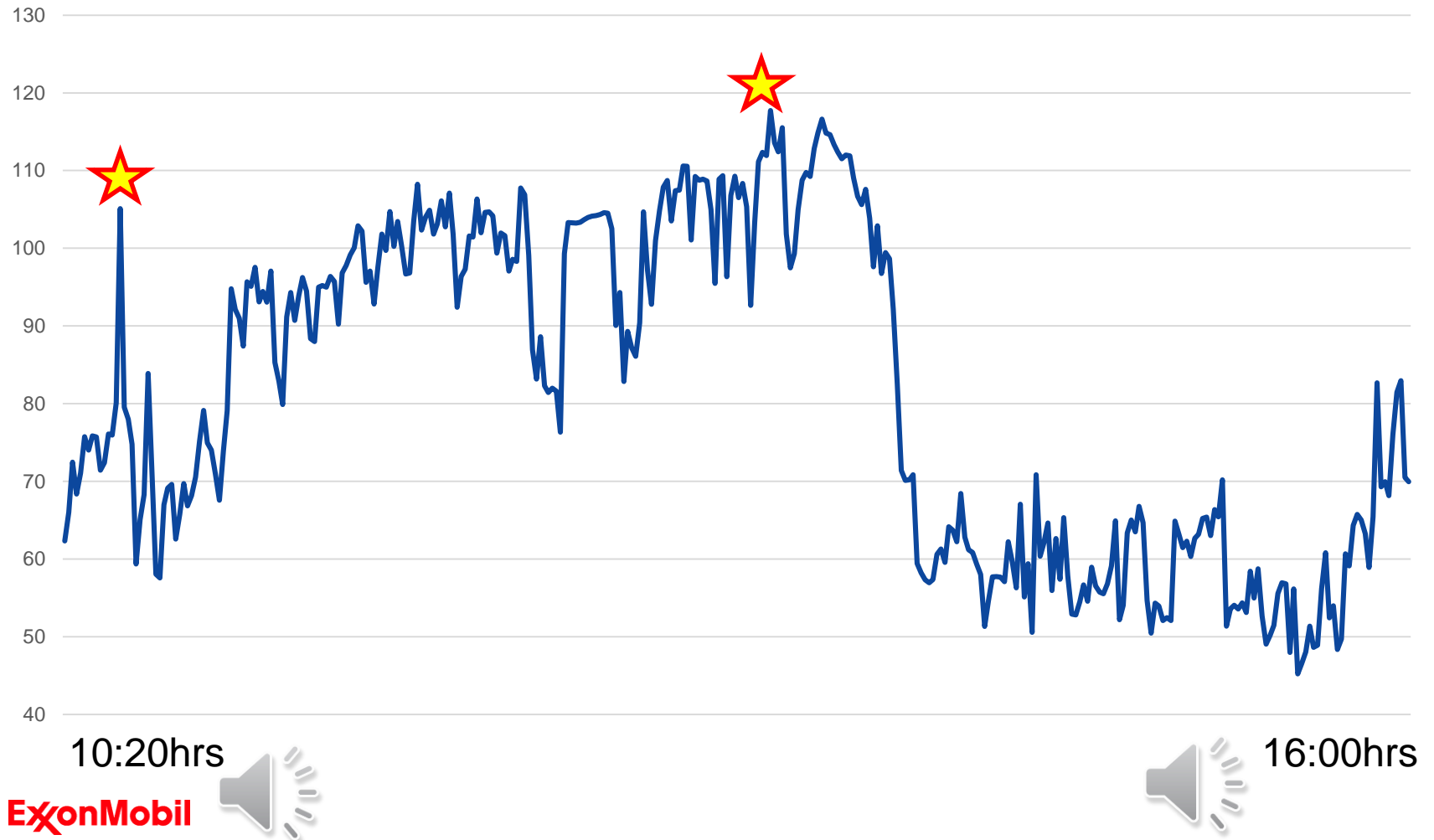
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# Scenario 3

- Noise assessment during equipment start-up
- Unexpected peak at the beginning of the exposure



# Summary

- Where noise cannot be reduced at source, suitable and efficient HPD is provided
- New technology offers:
  - Indication on movement of the unit
  - Identification of noise levels above threshold
  - Graphs of noise vs time
  - Ability to exclude sections
- Step change in the data analysis
- Continue to use the features offered by the new technology
- Observations are still key to conducting an exposure assessment

Questions?