



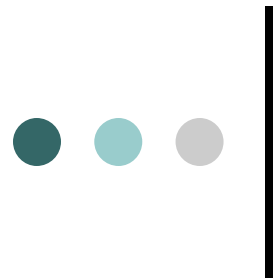
# Conclusions/Recommendations from the EPRI Foreign Object Task Force

Helen Cothron



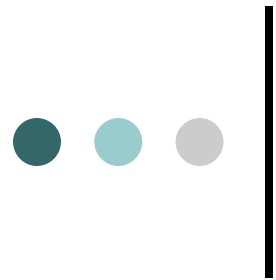
# Charter

- Due to a number of foreign material events in the industry, EPRI SGMP initiated a Foreign Object Task Force
  - Consisted of representative from Engineering, NDE, Chemistry, and INPO
  - Two meetings and several conference calls
  - Reviewed OE from recent years
  - Reviewed SGDD data
  - Requested information from plants that had experienced problems with foreign objects
- Task was to study the events, investigate causal factors, common causes, and develop lessons learned
  - Identify guidance changes or additions



# Findings of the Team

- Degrading trend in number of parts in recent outages is a result of preheater inspections and South Texas' cable problem
- Degrading trend in OE and low level events is probably a result of reporting increase which has been encouraged
- None of the 14 OE reviewed exceeded performance criteria
  - 10 had no leakage
  - A few had no tube damage



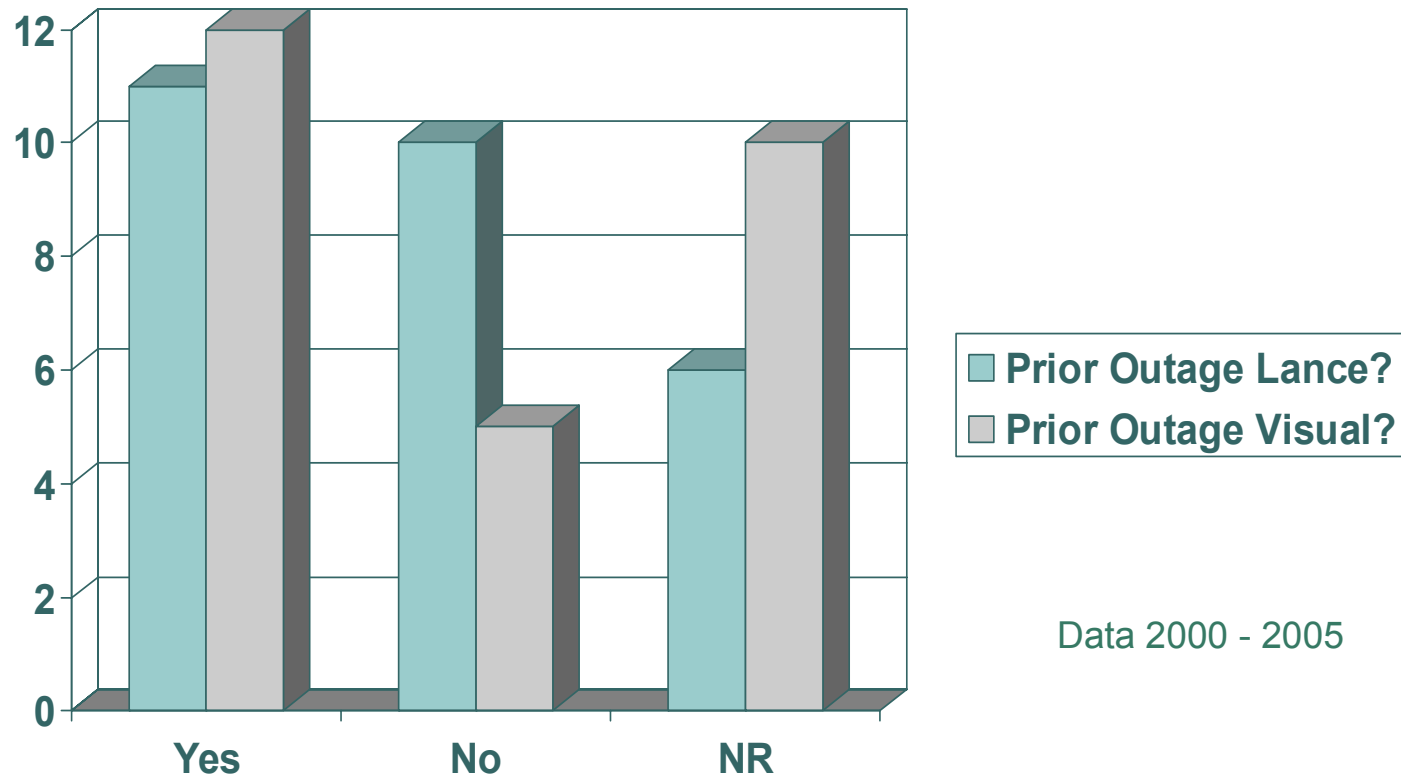
# Findings of the Team

- Adverse trend or not, foreign material events continue to challenge the industry
  - Several events were due to lack of control of foreign material by vendor during replacement activities
    - Material left in the SGs during fabrication
    - Material entering the SGs during the replacement activities
  - Majority of events are caused by degraded equipment
    - Flexitallic gasket material, valve seat parts, and wire fragments from a stabilizing cable.
  - Although FME practices are important, this problem can not be fixed by focusing on FME practices



# Findings of the Team

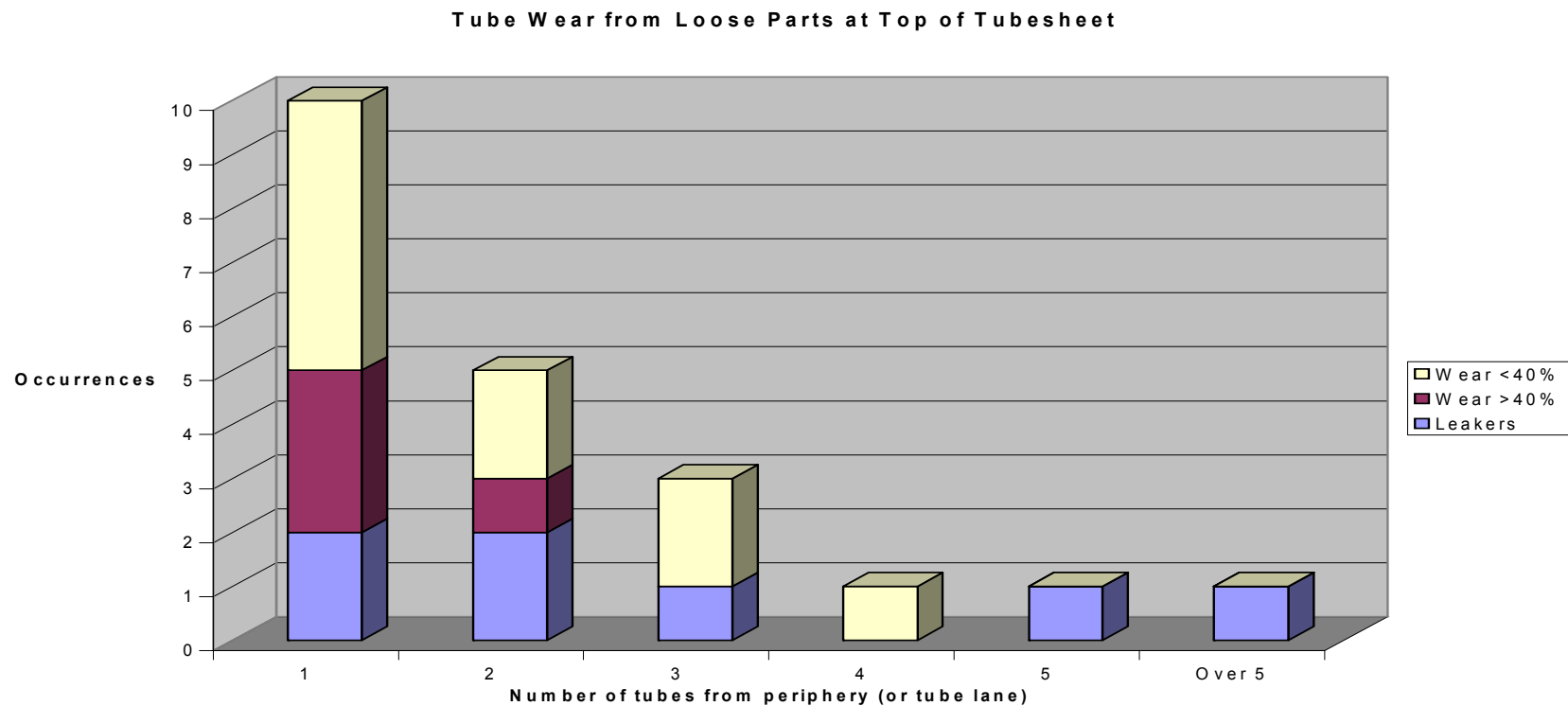
- There is not a clear correlation between events and skipping secondary side inspections





# Findings of the Team

- 90% of foreign material wear is on the 3 tubes nearest the periphery



# ● ● ● | Results of Task Force

- Recommendations were incorporated into Section 10 of the Integrity Assessment Guidelines
- Several long-term projects were proposed for funding through EPRI SGMP
  - Feasibility study for parts trapper in the feed train – Funded '06
  - Foreign object handbook – R0 funded, R1 on project schedule for '07
    - Wear rate calculations will be in revision 1
  - Eddy current techniques for wear – Funded '06