

# Artificial Intelligence – How Can it be Used?



Eric Swisher

ALL4

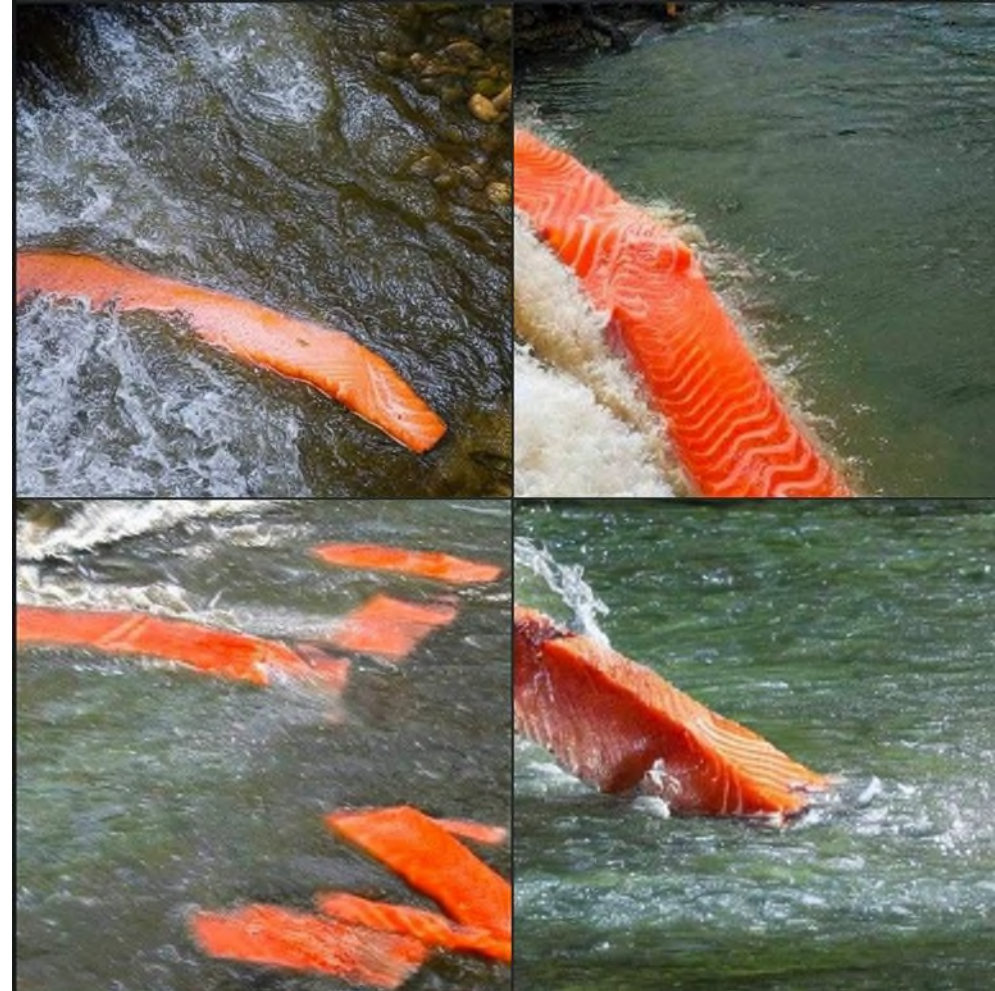
Technical Director - CMS Technical Team

[eswisher@all4inc.com](mailto:eswisher@all4inc.com)

610.422.1117

# AI Generated

- “Salmon swimming in a river”





# Artificial Intelligence (AI)

- Currently we define the rules to achieve Objective.
  - IF [Data Set > 5], [Do Something], [Otherwise Do Something Else]
- Now AI defines the rules and we define the objective.
  - “Provide a summary of the [Data Set] for data > 5 in tabular format”
  - “Develop a formula in Excel that...”





# How do you feel about AI?

- Empowered
- Enthused
- Overwhelmed
- Concerned
- Other?

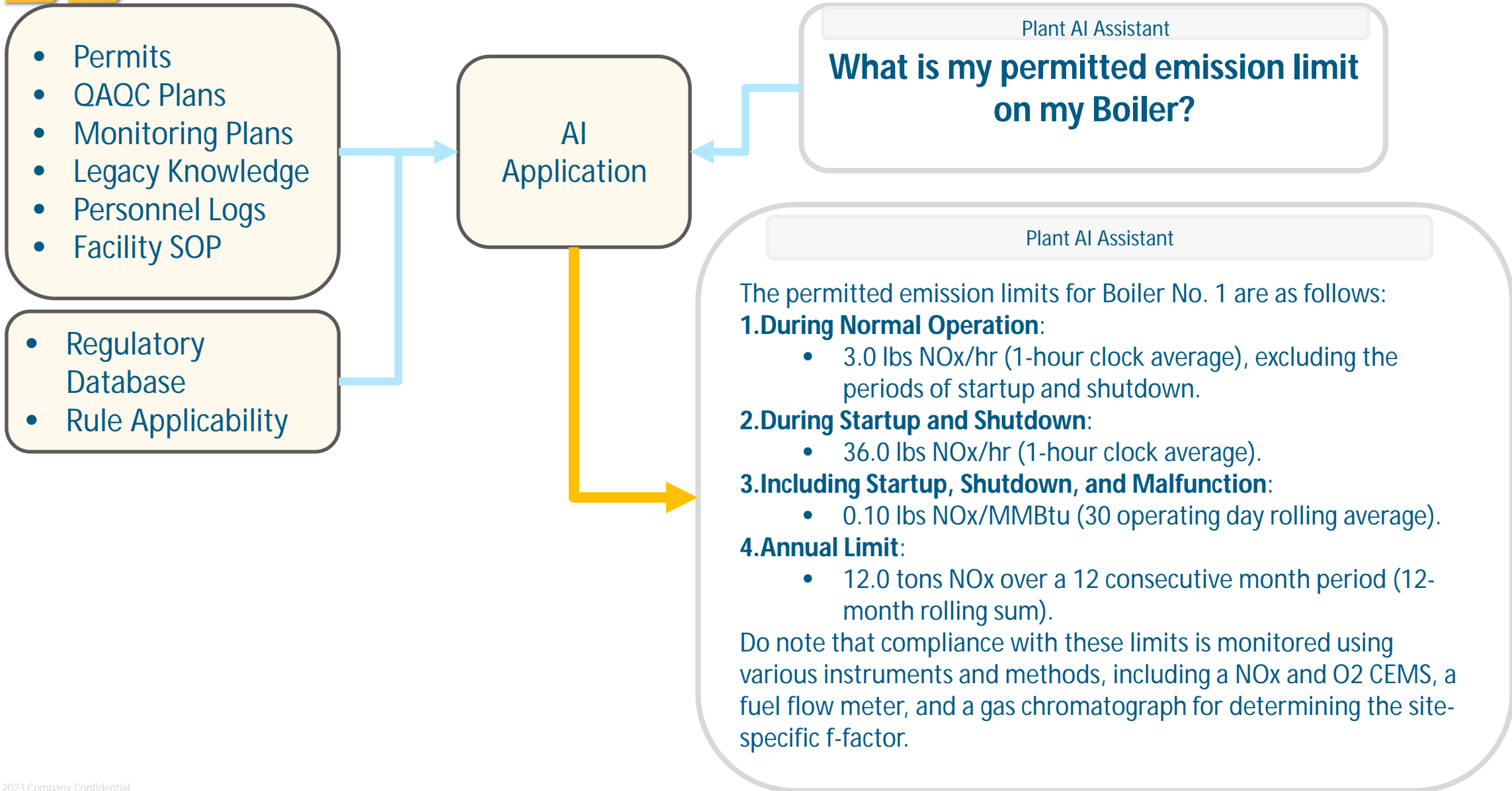


# Build Plant Specific AI Knowledge Center

- What is my permitted emission limit on my Boiler?
  - Where does it come from?
  - How is it enforced?
  - Have we ever exceeded it before?
    - What were the reasons and corrective actions for that event?
- What do I need to complete after I replace a H<sub>2</sub>S analyzer on the Flare?
  - Where did that information come from?
- I failed a Cylinder Gas Audit (CGA) on an SO<sub>2</sub> CEMS. What should I check?
  - Maintenance records

[Link](#)

# Build Plant Specific AI Knowledge Center

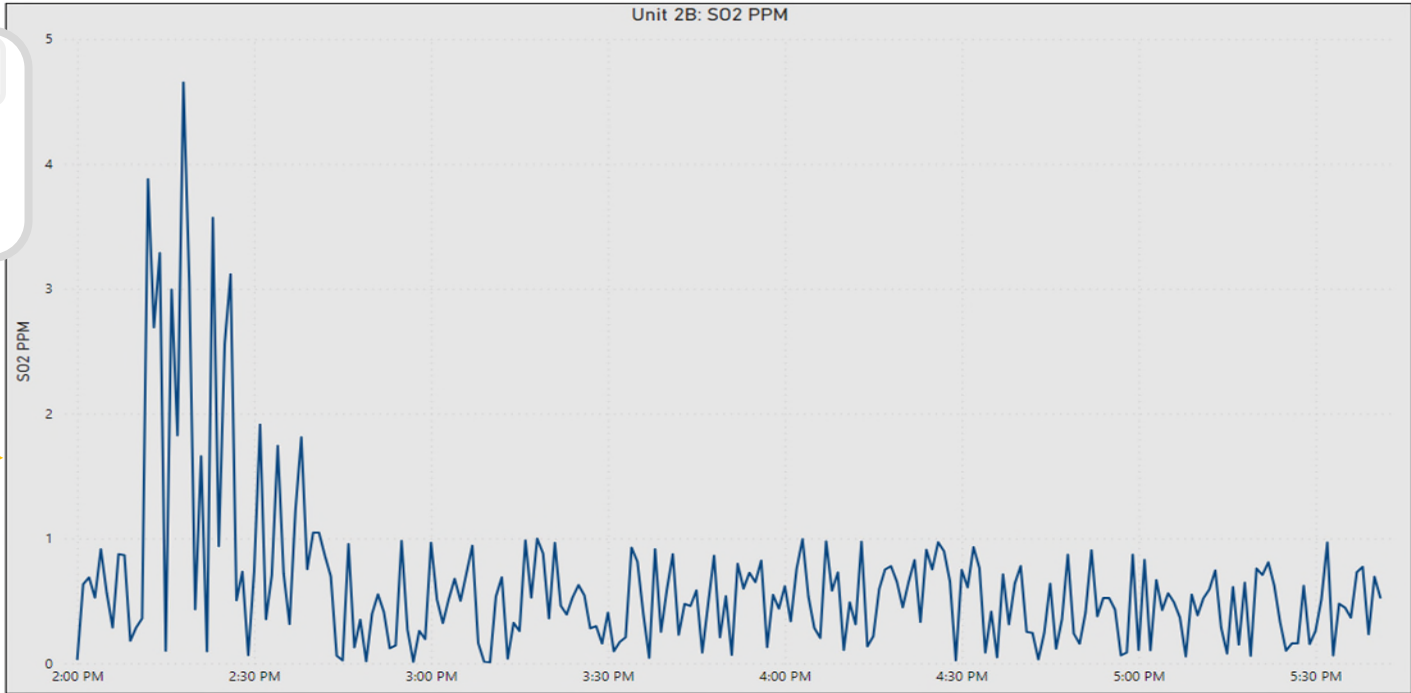


Plant AI Assistant

**Trend last 4 hour of SO2 data  
from Unit 2B?**

Plant  
Historian/  
Data

AI Application

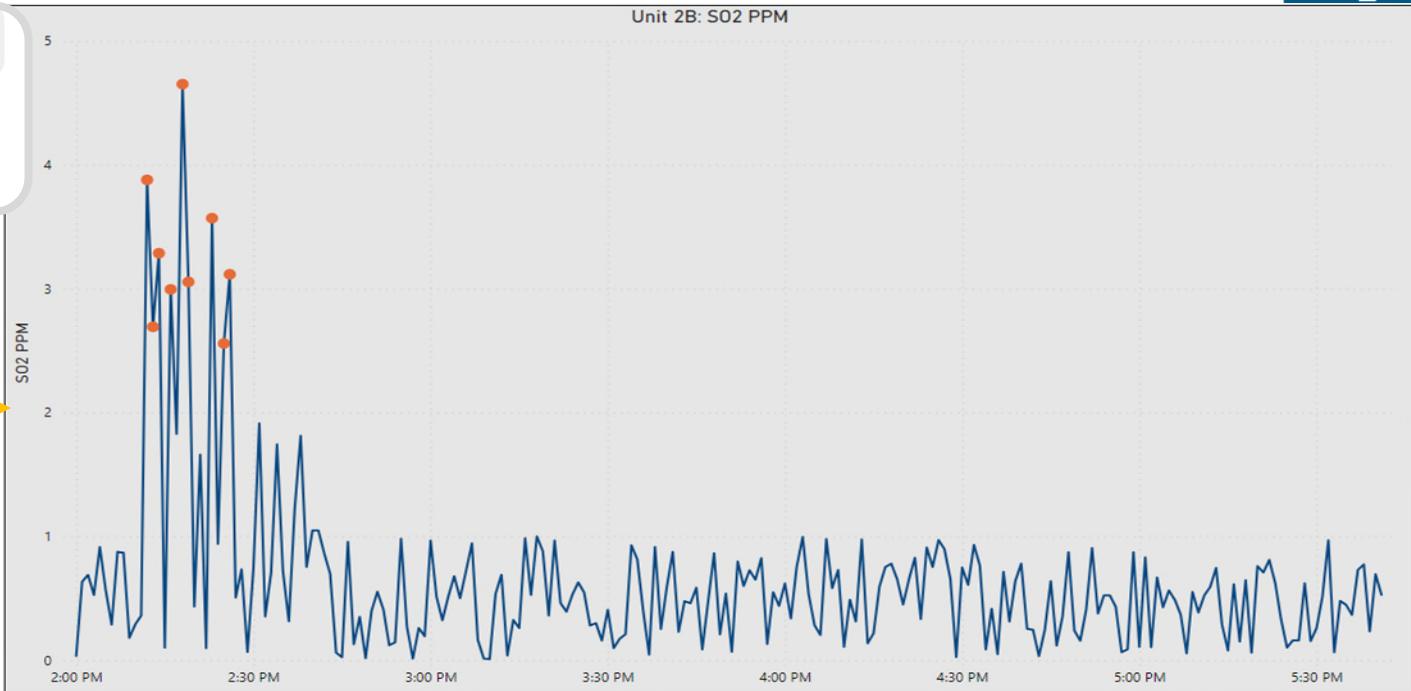


Plant AI Assistant

**Are there any anomalies?**

Plant  
Historian/  
Data

AI Application



# Understand Your Emissions

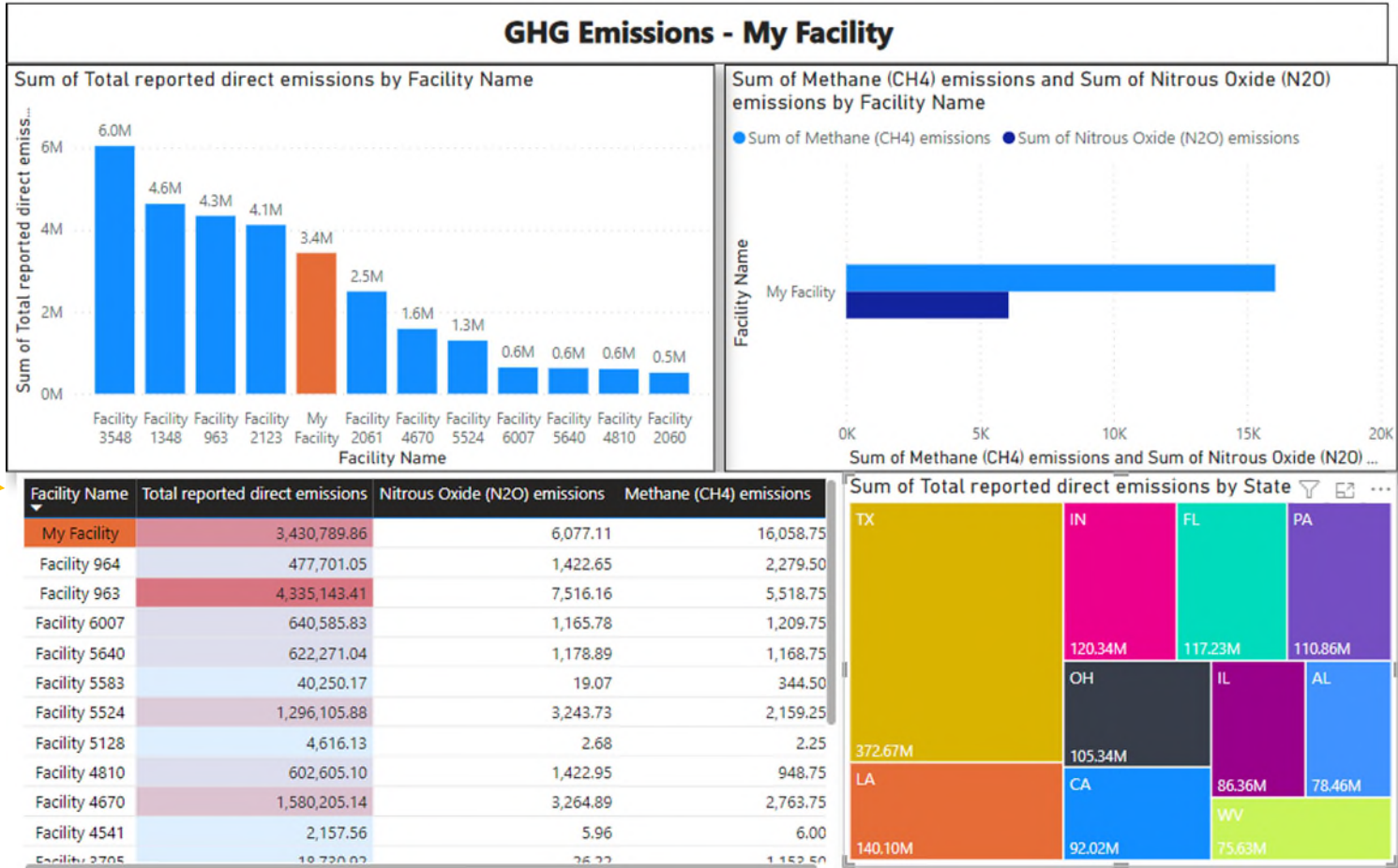


Plant Emissions

AI Application

AI Assistant  
**How does my facility's CO2 emissions compare with the industry?**

- EPA GHG Emissions Inventory
- Public Database
- Public ESG & Sustainability Reports





# Opportunities and Risks

## Opportunities

- Competitive advantage
- Increase productivity
- Become proactive
- Leverage legacy knowledge
- Enhance business performance

Be Creative!!

*AI is a tool. The choice about how it gets deployed is ours.*  
- Oren Etzioni

## Risks

- Competitive **dis**advantage
- Data security and confidentiality
- User behavior
  - Proprietary data leaks
- Increased scrutiny from agency and public



# Develop 'Mindfulness' Around AI

- ❑ Skip the hype and focus on your business case
- ❑ AI is here to assist, not to displace.
- ❑ Develop AI user policy & engage stakeholders
- ❑ Audit your data | High quality data = Better results
- ❑ Train staff and users on AI and data security
- ❑ Engage SME to verify AI
- ❑ Watch product price points to evaluate value



# Questions?



**Eric Swisher**

**ALL4**

**Technical Director - CMS Technical Team**

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