



SAFETY/SECURITY SHARE: Integrating AI into assurance functions

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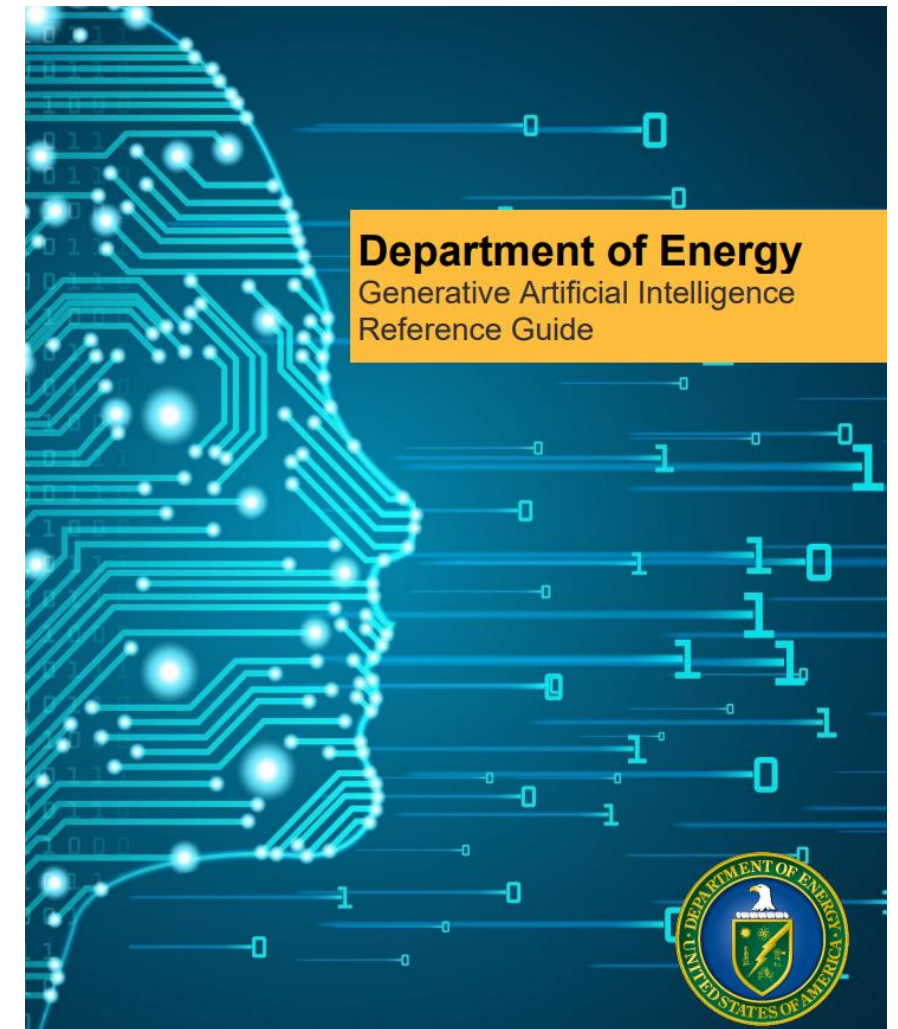
Safe & Secure AI Integration Framework

Risk-Based Implementation

- Begin with low-risk, high-value applications:
 - Automated trend analysis of safety metrics
 - Pattern detection in incident reports
 - Historical data mining for leading indicators
- Maintain human oversight for critical decisions
- Document clear boundaries between AI support and human judgment

Core Governance Controls

- Data validation protocols and audit trails
- Regular verification of AI-generated insights



[DOE's Resource Guide](#)

Implementation Success Factors

Essential Safeguards

- Cross-validate AI findings with traditional methods
- Protect site-specific sensitive information
- Monitor system performance continuously
- Maintain comprehensive documentation
 - Model versions
 - Training parameters
 - Validation results

Expected Benefits

- Faster identification of emerging safety trends
- Enhanced consistency in analysis
- Deeper historical data insights
- Reduced routine data processing time
- Improved predictive capabilities

**Artificial Intelligence (AI)
Usage Guidelines**

Communication Standards and Guidelines

<https://www.energy.gov/eere/communicationstandards/artificial-intelligence-ai-usage-guidelines>



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Thank you

