H-Canyon Exhaust Air Tunnel

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H-Canyon Exhaust Air Tunnel

- Confines and conveys the H-Canyon process air to the Sandfilter
- Meets Natural Phenomena Hazard (NPH) Seismic Design Criteria SDC-3
- Credited to mitigate consequences during and after a design basis earthquake
**H-Canyon Exhaust Air Tunnel - Qualification**

- Inspections raised questions on Existing Tunnel Qualification calculations
  - Potential Inadequacy in the Safety Analysis declared
  - H-Canyon operating under a Justification for Continued Operations (JCO)
  - Non-Linear Analysis initiated

- **Non-Linear Analysis in progress**
  - More complex modeling and analysis
  - Will document Tunnel qualification & demonstrate ability to credit Tunnel in Safety Basis
  - Will be used as basis for comparison of future inspections
  - Analysis forecasted completion - Summer 2019

- **Non-Linear Analysis does not provide a rate of degradation**
  - Exploring new technologies to aid in development of a rate
  - Proposed an Alternative Control Strategy for long term H-Canyon Operations
H-Canyon Exhaust Air Tunnel - Alternative Control Strategy

- Long term strategy for continued H-Canyon Operations
- Eliminates Safety Basis reliance on Tunnel for Seismic Events
- Similar to existing JCO Strategy
  - Prevents releases caused by Seismic Event vs mitigating release with Tunnel
  - Credits existing and some new passive preventive design features and administrative programs
  - Controls the hazard closer to the source
  - Takes advantage of reduced Material at Risk (MAR)
  - Alternative Control Strategy working in parallel with Non-Linear Analysis
- Forecast for approval Summer 2019, and implementation Fall 2019
H-Canyon Exhaust Air Tunnel – Conclusion

- Existing Safety Basis program (Structural Integrity Program) identified a potential inadequacy in H-Canyon Exhaust Tunnel
- H-Canyon Operations were suspended
- H-Canyon Operations resumed safely under a Justification for Continued Operations
  - Tunnel proven safe by calculation for Non-Seismic Events
  - Seismic Events credit passive preventive design features & administrative programs
  - No increased risk to public or onsite workers
- Multiple paths/options
  - Non-Linear Analysis
    - Restoration of the Exhaust Air Tunnel as credited preventer for Seismic Events
  - Alternative Control Strategy
    - Credit seismically qualified passive preventive design features and administrative programs
    - Eliminates the need to credit the Exhaust Air Tunnel for H-Canyon Seismic Events
- H-Canyon operations are and will be shown safe to continue with no impacts to workers, public or the environment.
Questions