This illustrative report involves real data and real statistical analysis. It is for illustration only. This work was not commissioned and is based on hypothetical circumstances.

Court-Evidentiary Style Report
Prepared pursuant to Rule 702, Federal Rules of Evidence

Title

Foreseeable Injury Mechanisms in a U.S. Private-Sector Water Utility (NAICS 22): A Temporal Stability Analysis

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Executive Summary

This report examines the temporal and structural stability of severe occupational injury mechanisms within a U.S.-based private-sector water utility, using OSHA Severe Injury Reports from 2015–2025. Statistical analyses indicate that core injury patterns remained consistent across pre-COVID, COVID-era, and post-COVID operational periods. These persistent patterns provide empirical evidence supporting the foreseeability of specific injury mechanisms in water utility operations under Daubert admissibility standards.

Scope of Engagement

This analysis was conducted independently and without attribution of legal fault or regulatory compliance status. The scope was restricted to descriptive evaluation of temporal pattern stability in injury data relevant to a private-sector water utility operating within NAICS Sector 22 (Water Utilities), for the purpose of evaluating injury foreseeability.

Expert Qualifications

This report was prepared by **John A. Honeycutt, PhD**, an expert specializing in occupational risk surveillance, injury taxonomy, and hazard pattern stability. Analytical methods conform to standards outlined in *Daubert v. Merrell Dow Pharm.*, 509 U.S. 579 (1993), including methodological transparency, replicability, and relevance to sectoral decision-making.

Methodology

- **Data Source**: OSHA Severe Injury Reports (SIR), 2015–2025.
- **Unit of Analysis**: Event–Source (EVT×SRC) combinations.
- **Analytic Phases**: Pre-COVID (Jan 2015–Mar 2020), COVID-era (Mar 2020–Apr 2023), Post-COVID (Apr 2023–Mar 2025).
- **Statistical Tests**:
    - Chi-square test of homogeneity (distributional change)
    - Cramér's V (effect size)
- **Interpretive Thresholds**:
    - Alpha = 0.05
    - Stability defined as lack of significant distributional change (p > .05)

Evidence Considered

- OSHA Severe Injury Reports
- NAICS classification for Sector 22 (Water Utilities)
- Crosswalked EVT×SRC taxonomies
- Publicly available pandemic declarations and operational guidance

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Findings

Temporal Stability of Injury Mechanisms

- No significant redistribution of injury types was found:
    - Pre-COVID vs COVID: (^2(56) = 52.15, p = 0.621)
    - Pre-COVID vs Post-COVID: (^2(60) = 60.96, p = 0.441)
    - COVID vs Post-COVID: (^2(38) = 40.54, p = 0.359)
- Effect sizes were modest: Cramér's V (–0.53)

Top Recurring Injury Mechanisms (EVT×SRC)

- Struck by powered machinery
- Contact with weather-related temperature extremes
- Interaction with parts/components

Geographic Consistency

- Anonymized water utility sample vs national water sector:
    - (^2) tests: No significant difference
    - Cosine similarity: ~0.94
    - Spearman rank correlation: (= 0.794, p = 0.006)

Comparative Insight

- Water utility ≠ Oil/Gas (Cosine ~0.39; Rank correlation (= -0.14))

- Risk structures are sector-specific

Conclusions

The severe injury profile of this anonymized private-sector water utility reflects a stable and recurrent set of exposure conditions. These conditions persisted across major operational disruptions, suggesting that injury mechanisms such as equipment-related incidents and environmental hazards are structurally embedded and reasonably foreseeable. The analysis satisfies Rule 702 requirements by offering reproducible, peer-relevant insight into injury foreseeability.

Statement of Truth

I declare that the opinions expressed in this report are based on analysis of publicly available data and conform to accepted methods within the occupational safety and epidemiology fields. The findings presented are my true and impartial professional judgment to the best of my knowledge and ability.

Signed: **John A. Honeycutt, PhD**
Date: _____

Appendices (Suggested)

- **Appendix A**: EVT×SRC Codebook
- **Appendix B**: Summary Chi-Square Output Tables
- **Appendix C**: Rank Alignment Diagrams
- **Appendix D**: Source References and Federal Classification Links

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Figures (To be included)

- Figure 1. Schematic of EVT×SRC injury mechanism
- Figure 2. Stability matrix of utility over time (≅ symbol legend)
- Figure 3. Rank alignment between utility and U.S. water sector
- Figure 4. Comparative chart: Utility vs Oil & Gas (divergent hazard profiles)

Legal Context Reference

This report adheres to the foundational principles of admissible expert testimony under: - *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993) - FRE 702 (Testimony by

Expert Witnesses) - FRE 703 (Bases of Expert Opinion Testimony) - FRE 705 (Disclosure of Facts or Data)