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Optimal Pipe Inspection Paths Considering Inspection Tool Limitations

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Highlights

- Operational and budget limitations must be considered when planning for robotic in-pipe inspections.
- A general optimization formulation is presented for this problem, and three heuristics are tested.
- In smaller networks, the selected path is less sensitive to the choice of solution method.
- In larger and more realistic distribution systems, the Evolutionary Program performs best.
- The optimization framework presented can be extended to model technology specific considerations.

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