Chapter 1

Introduction

Stability of two-phase natural circulation systems is not a novel subject in and of itself. However, this work aims to perform analysis on a novel geometry with unique characteristics using rigorous numerical methods. Motivation for this effort is given through the examination of an experimental facility and preliminary data, both experimental and numerical. Then, a literature overview of the field of stability analysis of fluid systems is presented with a broader perspective than that of this work. Finally, the chapter concludes with the end goals of this investigation and an outline of the work.