

RAMESH SINGH



PIPELINE INTEGRITY HANDBOOK

Risk Management and Evaluation

RAMESH SINGH



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DEDICATION

This book is dedicated to the memory of my late father, Kripashanker Singh, from whom I learned to put pen to paper, who taught me to be analytical in my approach, and who instilled in me a sense of discipline and dedication to the work I do.



PREFACE

There are several information sources on the market on this subject; most of them are regulatory requirements and guidelines. In most cases, due their very nature, the regulatory materials are specifically tailored as 'do and don't' lists. This rule of thumb hand book is intended to bring closer the management principles and regulatory requirements and to apply these principles to achieve the best possible results.

While the regulatory requirements are essential, the application of management principles, in the writer's view, uplifts the degree of success of the integrity management efforts of a company. This intends to support the under-supported by giving a practical perspective to the theoretical texts.

The book is aimed at those managers, engineers, and non-engineers, who are responsible for establishing and managing pipeline integrity for public safety. The book is intended to serve as a body of knowledge and as a source of reference.

In writing this book I do not claim originality on all thoughts and words, as this would be impossible on a subject as universal as integrity management. I acknowledge various sources and job positions that have contributed to my experience of the subject, and I am proud of them. Where I have consciously borrowed matters and ideas directly from these experiences and resources, I have acknowledged them as best as I can.

Those individuals who need more detailed information on any specific topic covered in this book should reach out to these acknowledged specialized associations, institutions, and local regulatory bodies for further guidance. There are several published works available from these bodies that can be of immense help in developing in-depth understanding of specific subjects.



ACKNOWLEDGMENT

Writing this book made me realize how dependent a person is in accomplishing a task of this nature. The process started with retrieving several years of notes, handouts, and hand written chits.

I am extremely grateful to the management and team of Gulf Interstate Engineering, Houston (www.gie.com), for creating an environment that encouraged me to write this book. I am also grateful to the clients of Nadoi Management, Inc. who allowed me to use data and pictures from the work that I performed for them.

I am also indebted to the encouragement, support, and help from my friend Olga Ostrovsky. She helped me negotiate the obstacles of writing and editing the drafts. Without her expert help, this book would not have been possible.

Last but not least, I am also grateful to my loving wife, Mithilesh, and my son, Sitanshu, for their support in helping me to accomplish this goal. Mithilesh tolerated my indulgence with the project. Without her support and understanding, this task would not have been possible.

ABOUT THE AUTHOR

Ramesh Singh, MS, IEng, MWeldI, is registered as an Incorporated Engineer with the UK British Engineering Council. He is also a member of The UK Welding Institute. He is a Senior Principal Engineer (Materials, Welding, and Corrosion) for Gulf Interstate Engineering, Houston, TX, USA.

Ramesh is a graduate of the Indian Air force Technical Academy, with diplomas in Structural Fabrication Engineering and Welding Technology. He has been a member and officer of the Canadian Standard Associ-



ation and NACE and has served on several technical committees. He has worked in industries spanning aeronautical, alloy steel castings, fabrication, machining, welding engineering, petrochemical, and the oil and gas industries. He has written several technical papers and published articles in leading industry magazines, addressing the practical aspects of welding, construction, and corrosion issues relating to structures, equipments, and pipelines.

He provides management consultancy in his areas of expertise through Nadoi Management, Inc.



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