

# Pipeline Control Room Management

API RECOMMENDED PRACTICE 1168  
SECOND EDITION, FEBRUARY 2015

REAFFIRMED, OCTOBER 2021



American  
Petroleum  
Institute

## Special Notes

API publications necessarily address problems of a general nature. With respect to particular circumstances, local, state, and federal laws and regulations should be reviewed. The use of API publications is voluntary. In some cases, third parties or authorities having jurisdiction may choose to incorporate API standards by reference and may mandate compliance.

Neither API nor any of API's employees, subcontractors, consultants, committees, or other assignees make any warranty or representation, either express or implied, with respect to the accuracy, completeness, or usefulness of the information contained herein, or assume any liability or responsibility for any use, or the results of such use, of any information or process disclosed in this publication. Neither API nor any of API's employees, subcontractors, consultants, or other assignees represent that use of this publication would not infringe upon privately owned rights.

API publications may be used by anyone desiring to do so. Every effort has been made by the Institute to assure the accuracy and reliability of the data contained in them; however, the Institute makes no representation, warranty, or guarantee in connection with this publication and hereby expressly disclaims any liability or responsibility for loss or damage resulting from its use or for the violation of any authorities having jurisdiction with which this publication may conflict.

API publications are published to facilitate the broad availability of proven, sound engineering and operating practices. These publications are not intended to obviate the need for applying sound engineering judgment regarding when and where these publications should be utilized. The formulation and publication of API publications is not intended in any way to inhibit anyone from using any other practices.

Any manufacturer marking equipment or materials in conformance with the marking requirements of an API standard is solely responsible for complying with all the applicable requirements of that standard. API does not represent, warrant, or guarantee that such products do in fact conform to the applicable API standard.

Users of this Recommended Practice should not rely exclusively on the information contained in this document. Sound business, scientific, engineering, and safety judgment should be used in employing the information contained herein.

All rights reserved. No part of this work may be reproduced, translated, stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission from the publisher. Contact the Publisher, API Publishing Services, 200 Massachusetts Avenue, NW, Washington, DC 20001.

## Foreword

Nothing contained in any API publication is to be construed as granting any right, by implication or otherwise, for the manufacture, sale, or use of any method, apparatus, or product covered by letters patent. Neither should anything contained in the publication be construed as insuring anyone against liability for infringement of letters patent.

Shall: As used in a standard, “shall” denotes a minimum requirement in order to conform to the specification.

Should: As used in a standard, “should” denotes a recommendation or that which is advised but not required in order to conform to the specification.

This document was produced under API standardization procedures that ensure appropriate notification and participation in the developmental process and is designated as an API standard. Questions concerning the interpretation of the content of this publication or comments and questions concerning the procedures under which this publication was developed should be directed in writing to the Director of Standards, American Petroleum Institute, 200 Massachusetts Avenue, NW, Washington, DC 20001. Requests for permission to reproduce or translate all or any part of the material published herein should also be addressed to the director.

Generally, API standards are reviewed and revised, reaffirmed, or withdrawn at least every five years. A one-time extension of up to two years may be added to this review cycle. Status of the publication can be ascertained from the API Standards Department, telephone (202) 682-8000. A catalog of API publications and materials is published annually by API, 200 Massachusetts Avenue, NW, Washington, DC 20001.

Suggested revisions are invited and should be submitted to the Standards Department, API, 200 Massachusetts Avenue, NW, Washington, DC 20001, [standards@api.org](mailto:standards@api.org).

## Contents

	Page
<b>1 Scope</b> .....	<b>1</b>
1.1 Purpose .....	1
1.2 General .....	1
<b>2 Normative References</b> .....	<b>1</b>
<b>3 Terms, Definitions, and Abbreviations</b> .....	<b>1</b>
3.1 Definitions .....	1
3.2 Abbreviations .....	3
<b>4 Personnel Roles, Authorities, and Responsibilities</b> .....	<b>3</b>
4.1 General .....	3
4.2 Pipeline Controller Authorities and Associated Responsibilities .....	3
4.3 Interfacing with the Public .....	5
4.4 Non-Controller Operations Authorities and Associated Responsibilities .....	5
<b>5 Guidelines for Shift Turnover</b> .....	<b>6</b>
5.1 General .....	6
5.2 Shift Turnover Process .....	6
5.3 Shift Turnover Procedure .....	6
5.4 Shift Turnover Information Exchange .....	7
5.5 Information to Exchange .....	7
<b>6 Provide Adequate information</b> .....	<b>10</b>
6.1 General .....	10
6.2 Supervisory Control and Data Acquisition (SCADA) System .....	10
6.3 Point-to-Point Verification .....	10
6.4 Internal Communication .....	11
6.5 Testing Backup SCADA Systems .....	11
<b>7 Fatigue Management</b> .....	<b>12</b>
7.1 General .....	12
7.2 Work Schedule .....	12
7.3 On-shift Breaks .....	13
7.4 On-shift Stimulation .....	13
7.5 Education .....	13
7.6 Pipeline Control Room Environment .....	13
7.7 Exercise Equipment .....	13
7.8 Fatigue-mitigation Room .....	13
7.9 Hotel/Sleep Facilities .....	13
7.10 Transportation Service .....	13
<b>8 Change Management</b> .....	<b>14</b>
8.1 General .....	14
8.2 Inclusion of Pipeline Control Room Representative .....	14
8.3 Systems/Processes Undergoing Change .....	14
8.4 Notification and Training .....	14
8.5 Emergency Change Management .....	14

## Contents

	Page
<b>9 Operating Experience</b> .....	<b>15</b>
<b>10 Training</b> .....	<b>16</b>
10.1 General .....	16
10.2 Roles and Responsibilities .....	16
10.3 Shift Turnover .....	16
10.4 Fatigue Mitigation .....	16
10.5 Alarm Management .....	17
10.6 Change Management .....	17
10.7 Operating Experience .....	17
10.8 Team Training .....	17
10.9 Other Training .....	18
<b>11 Workload of Pipeline Controllers</b> .....	<b>18</b>
<b>Bibliography</b> .....	<b>19</b>

# Pipeline Control Room Management

## 1 Scope

### 1.1 Purpose

The purpose of this recommended practice is to provide pipeline operators, and pipeline Controllers with guidance on industry best practices on control room management to consider when developing or enhancing processes, procedures, and training. This document was written for operators with continuous and non-continuous operations, as applicable.

### 1.2 General

This document addresses pipeline safety elements in Pipeline Control Rooms for hazardous liquid and natural gas pipelines in both the transportation and distribution sectors:

- personnel roles, authorities, and responsibilities;
- guidelines for shift turnover;
- provide adequate information;
- fatigue mitigation;
- change management;
- training;
- operating experience; and
- workload of pipeline Controllers.

## 2 Normative References

This document contains no normative references. A list of documents associated with API RP 1168 is included in the bibliography.

## 3 Terms, Definitions, and Abbreviations

### 3.1 Definitions

For the purposes of this document, the following definitions apply.

#### 3.1.1

##### **abnormal operating condition**

##### **AOC**

A condition identified by the operator that may indicate a malfunction of a component or deviation from normal operations that may:

- a) indicate a condition exceeding design limits; and/or
- b) result in a hazard(s) to persons, property, or the environment.