

ISO/TS 19677:2025-07 (E)

Assessing the adverse impact of wildland fires on the environment and to people through environmental exposure

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Wildland fire variables	2
5	Environmental impact of wildland fires	3
5.1	General	3
5.2	Fire testing and data collection	3
5.3	Impact of wildland fire on air	4
5.3.1	Nature of impact	4
5.3.2	Quantification of impact	4
5.3.3	Mitigation of impact	4
5.4	Impact of wildland fire on water	4
5.4.1	Nature of impact	4
5.4.2	Quantification of impact	5
5.4.3	Mitigation of impact	5
5.5	Impact of wildland fire on soil	6
5.5.1	Nature of impact	6
5.5.2	Quantification of impact	6
5.5.3	Mitigation of impact	6
5.6	Impact of wildland fire on vegetation	6
5.6.1	Nature of impact	6
5.6.2	Quantification of impact	7
5.6.3	Mitigation of impact	7
5.7	Impact of wildland fire on wildlife	7
5.7.1	Nature of impact	7
5.7.2	Quantification of impact	7
5.7.3	Mitigation of impact	7
5.8	Impact of wildland fire on exposed human populations	7
5.8.1	Nature of impact	7
5.8.2	Quantification of impact	8
5.8.3	Minimising health threats to exposed human populations	8
5.9	Impact of wildland fire on firefighters	9
5.9.1	Nature of impact	9
5.9.2	Quantification of impact	9
5.9.3	Mitigation of impact	9
5.10	Impact of wildland fire on food production	9
5.10.1	Nature of impact	9
5.10.2	Quantification of impact	9
5.10.3	Mitigation of impact	10
5.11	Impact of wildland fire on land, sea and air traffic	10
5.11.1	Nature of impact	10
5.11.2	Quantification of impact	10
5.11.3	Mitigation of impact	10

5.12	Impact of wildland fire on the built environment	10
5.12.1	Nature of impact	10
5.12.2	Quantification of impact	10
5.12.3	Mitigation of impact	10
6	The impact of firefighting activities	11
6.1	Nature of impact	11
6.2	Quantification of impact	11
6.3	Mitigation of impact	11
Annex A (informative)	Wildland fire incidents and their environmental impact	12
Annex B (informative)	Airborne combustion products identified from wildland fires	15
Annex C (informative)	Firefighting chemical additives and their environmental impact	16
Annex D (informative)	Impact of climate change	17
Bibliography	18