

ISO 21105-1:2019-11 (E)

Performance of buildings - Building enclosure thermal performance verification and commissioning - Part 1: General requirements

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and Definitions	1
4	Commissioning process	3
5	Risk assessment to determine the level of BECx	5
6	Levels of BECx program	7
7	Phases of BECx program	8
7.1	General	8
7.2	Predesign phase	8
7.2.1	General	8
7.2.2	Predesign scope of work	9
7.2.3	BECx project team	9
7.2.4	Owner's project requirements - building enclosure	9
7.2.5	BECx introductory meeting	10
7.2.6	BECx budget	11
7.2.7	BECx tasks	11
7.2.8	BECx plan	12
7.2.9	Basis of design review	12
7.2.10	BECx progress report	12
7.3	Design phase	12
7.3.1	General	12
7.3.2	Design phase meeting	12
7.3.3	Level 1 (basic) BECx design review	13
7.3.4	Level 2 (intermediate) BECx design review	14
7.3.5	Level 3 (comprehensive) BECx design review	15
7.3.6	BECx specification	16
7.3.7	OPR and Cx plan updates	16
7.4	Construction phase	16
7.4.1	General	16
7.4.2	Construction phase documentation requirements	17
7.4.3	Level 3 (comprehensive) review of bid documents	17
7.4.4	Construction phase introductory meeting	17
7.4.5	Checklists	17
7.4.6	Building enclosure maintenance manual	17
7.4.7	Construction phase BECx program tasks	17
7.5	Occupancy phase	20
7.5.1	General	20
7.5.2	BE assembly maintenance manual	20
7.5.3	Facility staff training	20
7.5.4	Ten-month warranty review	20
7.5.5	Building enclosure monitoring/on-going commissioning	20

7.5.6	Building enclosure continuing facility requirements (CFR)	21
7.5.7	Final (updated) BECx report	21
Annex A (informative)	Building enclosure risk factors	22