ISO/TR 7015:2023-04 (E)

Ergonomics - The application of ISO/TR 12295, ISO 11226, the ISO 11228 series and ISO/TR 23476 in the construction sector (civil construction)

Cont	ents	age
Forewo	ord	v
Introdu	uction	vi
1	Scope	1
2	Normative references	1
3	Termsanddefinitions	1
4	General outline of work processes in an annual multi-task analysis in civil construction	
4.1 4.2	General structure of a multi-task analysis Study of tasks distribution over the year on groups of workers who are homogeneous in terms of risk exposure	1
4.2.1	General	3
4.2.2 4.2.3	Macrocycle durationPhase and task identification	6
4.2.4	Identification of the different homogeneous groups	10
5	First levels: pre-mapping of danger and discomfort through key questions and quick assessment	12
5.1	Foreword	12
5.2	The pre-mapping model	
6	Analytical study of work processes in annual multi-task analysis: description of a typica working day for each month and quantitative task distribution over the year	
6.1	General	
6.2	Phase A - Description of a typical working day	
6.3		
6.4	Phase B - Estimation of total number of hours worked every month of the year	17
0.4	Phase C - Assignment of tasks to a homogeneous group (or individual worker) and calculation of proportional tasks duration in each individual month	17
7	Annual multi-task risk assessment of biomechanical overload for the upper limbs	
7.1	General	20
7.2	Phase A - Analysis of each individual task using the OCRA checklist to calculate the intrinsic risk score and prepare the tasks basic risk evaluation for each crop	20
7.3	Phase B - Application of mathematical models and preliminary preparation of artificial working day representative of the whole year and of every month of the same year	20
8	Annual multi-task risk assessment for working postures	
8.1	The meaning of postural tolerance	22
8.2	Analysing the tolerability of working postures for the spine when performing manual lifting tasks, and for the upper limbs when performing repetitive movements and manua lifting: specific International Standards	
8.3	Analysing spinal working postures without manual load lifting and lower limb postures (primarily static)	23
8.4	The TACOS method: contents and criteria for back and lower limb posture analysis	
8.5	Posture analysis of a multi-task job performed on a full-time or part-time basis with yearly job rotation	
9	Annual multi-task risk assessment of manual material handling (MMH) and carrying	32

10	Annual multi-task risk assessment of pushing and pulling	35
11	Manual material carrying (MMC) risk assessment	37
12	Conclusions	38
Annex A	(informative)Initialidentificationandpreliminaryassessment(pre-mapping) ofpotentialrisks:criteriaandpresentationofaspecificsimpletoolthatallowsits application	40
Annex B	(informative) Criteria and mathematical models for analysing exposure to biomechanical overload in multitask jobs featuring complex macro-cycles (e.g. weekly, monthly, annual turnover)	
Annex C	(informative) Criteria to evaluate working postures of the spine and lower limbs using the TACOS strategy in daily or other macro-cycle multi-task analysis: brief presentation	
Bibliogra	phy1	17