

## Project Type: Pharmaceutical manufacturing facility expansion project

Novo Nordisk: HI 23K Risk Log 20230313

## Risk Log

10414907-010 Merged

Date 2023.03.13  
Init MIT/NIRAS

ID	Workshop Ranking	Category	Theme	Description of Risk	Root causes	Likelihood converted	CONSEQUENCE						Mitigation action plan	Deadline	Responsible		
							Schedule	Likelihood converted2	LxS	Cost	Likelihood converted3	LxC	Quality	Likelihood converted4	LxQ		
1	1	Organizational and PM risks	Changing requirements	Scope changes Unforeseen user requirements cannot easily be implemented. User expectation must be aligned and agreed. Novo business development different than expected, building too small or too large.		50,0%	5 3-6 months	4	20	2 000 000 kr.	2	10	No risk for business continuity	1	5	Make explicit what is in scope and what is not (align expectations). Change log to be discussed in client meetings (scope agreements). Strengthen NN governance (filter). Clarify roles and responsibilities (NN, PLH, NIRAS). Onboarding of new project participants and users. Design reviews. Communicate interdependences and consequences (schedule, cost, quality). Work-package owners approval process (design review). Formal process and interdisciplinary assessment/review of scope-changes. Lead: Kirsten/PLH (R&R/Organization) with Henrik/NN. Review and change process (PLH). PQMP Quality and outcome (NN document).	Kirsten & Henrik
2	2	Technical risks	Authorities	Building permit not ready in October where construction is planned to commence No dispensation for height. LCA not compliant with BR requirements.		50,0%	5 1-3 months	3	15	2 000 000 kr.	2	10	Downtime 1 week or more	5	25	Speed up building permit application. Right input to authorities. VVM (NN), LCA (NIRAS), and environment (frogs). Good process (ongoing) – keep going! Lead is agreed.	
3	3	Organizational and PM risks	Communication	Complex communication means wrong decisions are discovered late		50,0%	5 < 1 week	1	5	200 000 kr.	1	5	No risk for business continuity	1	5	Clearer communication channels. Update organizational charts and areas of responsibilities. See item "Scope Change" (id 1).	
4	4	Technical risks	Construction and execution	Construction and execution. Concrete project E2 does not match E3-projects, additional holes required etc. Interfaces in contracts between contractors not well defined, missing deliveries. The client must perform a high degree of construction management after E2 (trade contractors and main contractor)		25,0%	4 1-3 months	3	12	2 000 000 kr.	2	8	Downtime 1 week or more	5	20	Interface E2/E3. Interface logs for contractors. Careful planning of schedule overlap between trades. Increase manning in client organization	
5	5	Organizational and PM risks	Ressources	Lack of resources to complete the project Design team key project member stops (job change, sickness etc.)		50,0%	5 < 1 week	1	5	2 000 000 kr.	2	10	No risk for business continuity	1	5	Map out resources on activities and ensure back-up and documentation. Clear priorities. Focus on good communication. (Obs Marianne Mølgaard, IES, IT, Superbrugere, "Kerneholdet")	
6	6	Technical risks	Services/Utilities	External heating and cooling utilities may be delayed Site utility capacity and infrastructure not sufficient		12,5%	3 1-3 months	3	9	2 000 000 kr.	2	6	Downtime 1 week or more	5	15	Develop plan-B for the specific heating requirements. Careful planning. Interface coordination with existing site. Coordinate with CFA. Use existing utility capacity as back-up.	
7		External and business risks	Long lead items	Delivery times of important equipment longer than expected. Long lead items may not arrive in time		25,0%	4 3-6 months	4	16	2 000 000 kr.	2	8	Downtime 1 week or more	5	20	Speed up DD or ask the contractor to perform DD.	
8		Other	Weather conditions	Extreme weather conditions (including natural disasters) during production or in-use		25,0%	4 1-3 months	3	12	2 000 000 kr.	2	8	Downtime 1 week or more	5	20		
9		Technical risks	Authorities	Risk of too little space for laydown, parking etc (exterior area too small)	Lack of alignment in strategy	5,0%	2 1-3 months	3	6	2 000 000 kr.	2	4	No risk for business continuity	1	2	Cfa to speed-up application regarding rural area (landzone) south of plot	
10		Technical risks	Soil conditions	Groundwater level		12,5%	3 < 1 week	1	3	50 000 000 kr.	4	12	Downtime < 1 hour	2	6		
11		Technical risks	Stability chambers	Conditions in stability chambers cannot be delivered Water or other intrusion in stability chambers		0,5%	1 < 1 week	1	1	100 000 000 kr.	5	5	Downtime 1 week or more	5	5	NB: IFP can borrow space in BRDs facilities (SC + 30C) until 2028. Also, rental of Novozymes area with interim containers on 2M with IFPs reference-samples is possible until January 2025 (prolongation is possible). Building permit is valid until January 2027 after which it must be removed.	
12		External and business risks	Contractor	Insolvency of contractor / subcontractor		0	0	0	0		0	0		0	0		
13		Organizational and PM risks	Governance	no clear timeplan for delivery		0	0	0	0		0	0		0	0		
14		External and business risks	Negotiation delay	change of order negotiation delay		0	0	0	0		0	0		0	0		
15		Technical risks	Soil conditions	Soil bed for location contains surprises	There is a risk that decisions are not taken or delayed due to a too small	0	0	0	0		0	0		0	0		
16		External and business risks	Commissioning	Equipment commissioning delay		0	0	0	0		0	0		0	0		