





TITLE	KFV-SR-050
Reference No.:	1
Revision:	KGA-067
Associated Documents:	

Nuclear Project Management -Construction Of Transient Interim Storage Facility.

Department	Group	Id number	Activity / Product / Service / Process / System	Aspect	Hazard / Potential Incident	Impact	Risk Category	Initial Frequency	Initial Probability	Initial Severity	Initial Risk Value	Initial Risk Classification	Mitigation	Legal Requirements	Final Frequency	Final Probability	Final Severity	Final Risk Value	Final Risk Classification	Completed	Reviewed	Authorised	Date		
<p>Although captured in the mitigations below, prior to performing ANY activity, ALWAYS consider the following: HP TOOLS, i.e. self checking, pre-job / post job brief, peer checking, procedure use, place-keeping, questioning attitude, effective communication, coaching, handover and authorisation and knowledge; OTHER CONTROLS, i.e. monitoring, measurement & inspection; Operational control i.e. procedures; SHE programme; Engineering control</p>													<p>Applicable Legal & other requirements & applicable sections (Eg: National Environmental Management Waste Act no. 59 of 2008, Section 19); National water act, Section X; National Environmental Management Act, Section Y)</p>												
			OPERATIONAL/ ENGINEERING CONTROL (i.e. bund wall, equipment, procedures)		MONITORING & MEASUREMENT (i.e. inspection, monitoring)		ADMINISTRATIVE/ PROGRAMME (i.e. training, protective measures)																		
NPM	Civils	Activity 001	Site establishment	Access of persons	PIT training, Full Medicals, Drug test, Criminal check, Identity document and proof of address	No Access allowed (Resulting in loss of production)	P	2.0	0.5	1.0	3.5	Low Risk	Have to complete and pass all FFD related training	FFD administrator to assist with the process	All FFD related training to be obtained for access	General Safety Regulations 2c(1)(2)	2.0	0.0	0.5	2.5	Very Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 002	General entry into Eskom Koeberg premises	Walking on Eskom premises or off plant areas	Road / pavement obstructions or animals. Uneven walking surfaces	Injury	P	2.5	0.5	3.0	6.0	Medium Risk	Pedestrians have right of way on the road. Wear visible clothing when walking in the dark	HP Tools, Self checking (Star, 2M-Rule)	Walk on pavements wherever possible. Keep eyes on where you are walking. Apply 2M-Rule. Situational awareness	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)Section 14	2.5	-1.0	2.0	3.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 003	Driving inside Eskom Koeberg Power station	Driving vehicle on site	Risk of injuring pedestrians due to collision	Injury/Fatality	P	2.5	0.0	3.0	5.5	Medium Risk	Always buckle up when vehicle is in motion. Pedestrians and animals always have the right of way. No persons are allowed at the back of a delivery truck or pick up truck	Driver to adhere to speed limit 50 km/hr and onsite 30 km/hr	Drive Defensively and cautiously. Competent and valid licence driver to be compliant. Reduce the speed limit taking weather conditions like rain, mist and lack of good lighting into account	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993). CR23(d)(ii)	2.5	-0.5	1.0	3.0	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 004	Transporting of materials	Material not properly secured	Materials damage	Property damage	A	2.0	0.5	3.0	5.5	Medium Risk	Materials to be tied down to avoid damaging it	Driver to adhere to speed limit 50 km/hr and onsite 30 km/hr. Driver to check that the load is secure before driving off with the load	Drive defensively and being cautious all the times. Driver to be cautious with load when transporting of goods, tools or materials	Construction Regulation 23(2)(h)	2.0	-0.5	2.0	3.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 005	Walking around plant areas	Climbing of stairs	Trip and fall	Injury	P	2.5	0.5	3.0	6.0	Medium Risk	Adhere to warning sign(s) displayed at staircases. Situational awareness. Always have 3 point contact when ascending or descending the stairs	Job Observations. HP Tools	Make use of handrails and never run up or down a staircase.	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) Regulation 8(1)	2.0	-0.5	3.0	4.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 006	Walking around plant areas	snakes	Snake bite	Illness	P	1.0	0.5	5.0	6.5	Medium Risk	Only the snake Catcher to handle snakes. Contact JURINA LE ROUX on extension 1257 / 1258 or 083 6633 467	Observe snake sign posting. Apply 2M-Rule. Situational awareness	SHE Talks. Operating Experience. It is important to check what the snake looked like (colour, size, etc.) to assist Medical Service or treating Physician to know what anti-venom to administer. Call emergency services on extension 4222	Occupational Health and Safety Act, 1993(Act. No.85 of 1993) Section 14. General Duties of Employer Subsection:(a)-(d) read with Section:21 General Prohibitions Subsection:(c)	1.0	-0.5	3.0	3.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 007	Walking around plant areas	Insect	Insect bites	Pains, illness	P	1.5	0.5	3.0	5.0	Medium Risk	She Talks and encourage persons to wear long sleeve overall jackets in the scorching weather	Discuss weather conditions in Toolbox talks	She Talks. Individuals to be aware of their status regarding allergies and inform the group you work in case of emergency.	Occupational Health and Safety Act, 1993(Act. No.85 of 1993) Section 14. General Duties of Employer Subsection:(a)-(d) read with Section:21 General Prohibitions Subsection:(c)	1.5	-0.5	2.0	3.0	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 008	Moving materials	Improper handling of materials	Back injury	Injury	P	2.5	0.0	3.0	5.5	Medium Risk	Materials handling guide :- refer to KGA-114.	Safety Officer to do adequate inspections. Self checking and assess weight(s) and size(s) of package(s)	Apply proper lifting techniques by bending knees slightly when lifting object. Use appropriate Personal protective equipment (PPE) (eg. Kidney belts)	Man Dir 009. Materials handling training. Eskom Guide KGA-114	2.5	-0.5	1.0	3.0	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 009	Emergency Planning	Evacuation and mustering during emergencies	Personnel not listening to announcements	Un-accounted personnel	P	0.0	-0.5	4.0	3.5	Low Risk	Muster Supervisor visible. Sign posting. Muster areas and evacuation routes identified	Accountability list	Regular Emergency Exercise	HAZACT(R247:GRP IV Hazards relating to Ionising Radiation) Chapter 3 Sec 7,8- Provision of means to monitor and control exposure to ionising radiation; Sec.21,22- Management of exposure and dose tracking	0.0	-0.5	2.0	1.5	Very Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01

NPM	Civils	Activity 010	Breaking of concrete floor	Walking on the open trenches	Slip trip and fall	fracture and abrasion injuries	P	3.0	1.0	3.0	7.0	High Risk	Adequate protection by a barrier or fence at least one meter from the trenches	Job Observations. HP Tools. Pre-job brief	Wear correct PPE (steel boot cap). STAR Principle and Toolbox talk	Construction regulation 13(2) € General Safety Regulations 2 (1)	3.0	-0.5	0.0	2.5	Very Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 011	Digging trenches	Dust accumulation whilst performing activities on site	Dust inhalation	Lung problems	P	2.5	0.0	3.0	5.5	Medium Risk	Materials handling guide -> refer to KGA-114.	Supervisor to do adequate inspections. Self checking and assess weight(s) and size(s) of package(s). Make use of shyster for heavy materials	Apply proper lifting techniques by bending knees slightly when lifting object. Use appropriate PPE (eg. Kidney belts)	Man Dir 009. Materials handling training. Eskom Guide KGA-114	2.5	-0.5	1.0	3.0	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 012	Man machine interface	Supervisor Absence	Can result into broken legs or fatality	Fatality or irreversible disabilities	P	2.0	1.0	5.0	8.0	High Risk	Supervisor to be present supervising the activity when vehicle move in the designation area for delivery or pick up	Apply 5M-Rule. Toolbox Talks. Pre-Job Briefing	Supervisor to inspect work area before commencing of delivery or pick up from truck. Barricade activity is to be aligned with activities changes.	Construction Regulation 23(1)(e) 2(a)	2.0	0.5	2.0	4.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 013	General Activity	Entering noise zones greater than 85db	NIHL	Injury	P	2.0	0.5	5.0	7.5	High Risk	Regular Noise Surveys must be done to assess the noise levels	Audiogram testing to be done regularly	Wear correct PPE (earplugs). Ensure earplugs are correctly inserted into the ear. STAR and pre-job briefing	NIHL Regulations 3,5,8,9	2.0	0.0	0.0	2.0	Very Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 014	Overhead Activities	Climbing up and down the step or extended ladder	Loose balance and fall off ladder or ladder give way under you	Injury, fractures	P	2.5	0.5	2.0	5.0	Medium Risk	Pre-job briefing. Barricade work area.	Continuous visual supervisory and safety inspections. Job observations	Wear appropriate PPE (dust mask)	Man Dir 009. Construction Regulations ((1)(a-e) General Safety Regulations 2€	2.5	-0.5	1.0	3.0	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 015	General Activity	Working at heights	Falling	Injury or fatality	P	2.5	0.0	5.0	7.5	High Risk	May proceed to work on scaffold if tagged with a GREEN TAG. Hook up at heights	Scaffold to be inspected by a competent inspector. Safety inspections periodically.	Working at heights training. Competent scaffold erectors. Fall protection plan	Construction Regulation 16(1),10(1)(a-c),10(2)(1)(a-e)	2.5	-1.0	2.0	3.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 016	Backfill and layer works using automated machines	Untrained operator	Loose control of machine or equipment whilst operating	Injury	P	1.5	1.0	3.0	5.5	Medium Risk	Safe Work Procedure on handling of machines or plant equipment to be briefed in Toolbox Talks and Pre-job Briefings	Operator or driver to use pre-start checklist prior to use and findings of such inspections are recorded and kept in a register	Only competent operators allowed to operate equipment and machinery	Construction Regulation 23(1)(d)(i,ii)(h)	1.5	-0.5	2.0	3.0	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 017	Medically unfit Driver	Could lead to vehicle accidents	Injury to operator/driver or persons	Injury	P	2.0	1.0	4.0	7.0	High Risk	All Drivers/operators to undergo Medicals and declared fit by a Medical Practitioner	All employees to be inducted and checked the validity of medicals and driver history	OH&S Practitioner to issue Permit in the form of Annexure 3	Construction Regulation 23(1)(i). Driver to have a medical certificate of fitness to operate a construction vehicle	2.0	0.5	2.0	4.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 020	Concrete Vehicles reverse into concrete pump	Could lead to property damage and serious injury to driver	Property damage and a delay in the work flow plan	Equipment damage	A	2.0	1.0	3.0	6.0	Medium Risk	Crash barriers, adequate edge protection blocks to be put into place on excavation wall	Flagmen and spotter to be in place preventing the vehicle from reversing into trench	Safe work procedure to be adhered to when doing concrete pouring	Construction Regulation 23(1)(g)(j)	2.0	-0.5	2.0	3.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 021	Concrete Vehicles reverse into Flagmen	Can result in broken legs or a fatality	Work stop and production loss	Fatality or irreversible disabilities	P	2.0	1.0	5.0	8.0	High Risk	Crash barriers, adequate edge protection blocks to be put into place on excavation wall	2 Way communication with flagmen when driver is reversing	All driver to do site induction pertaining deliveries	Construction Regulation 23(2)(b)(j)	2.0	0.5	2.0	4.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 022	Concrete vehicle reversing	Truck may reverse into excavated area	Vehicle damage and property damage	Equipment damage	A	2.0	1.0	3.0	6.0	Medium Risk	Crash barriers, adequate edge protection blocks to be put into place on excavation wall	Flagmen and spotter to be in place preventing the vehicle from reversing into trench	Safe work procedure to be adhered to when doing concrete pouring. Marking of reverse area as control	Construction Regulation 23(1)(g)(j)	2.0	0.5	2.0	4.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 024	Concrete pouring	Re-bars walking	Uneven surfaces	Trip and fall	P	2.0	0.5	3.0	5.5	Medium Risk	Site induction procedure on PTO's and housekeeping	Foreman to monitor work area and do removal of waste and debris at appropriate intervals	SHE representative to update. SHE representative checklist regarding housekeeping	GSR 2(3)(a)(e) (f)	2.0	-0.5	2.0	3.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 025	Swing of Chute	Incorrect handling of chute	Chute may swing against person handling it. Knock person or finger pinching	Injury	P	2.0	1.0	3.0	6.0	Medium Risk	Attention to Safe Work Procedure when handling the chute. Wear Heavy Duty Rubber Hand Gloves for concrete pouring	Site Foreman to Supervise and chute handler to use handles when handling chute. Keep clear of nip and pinch points. 2 Persons to set up chute. 2 Way communication	Materials handling training to be adhered to	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) Regulation 8(1)(2)(b)	2.0	0.5	1.0	3.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 026	Concrete pouring	incorrect handling of Poker drive unit	Knock or fall on persons	Injury	P	1.5	0.5	3.0	5.0	Medium Risk	Safe Work Procedure on handling poker unit to be briefed in Toolbox Talks and Pre-job briefings	Site Foreman /SHE representative(s) to assess and review materials handling	Persons to use Vibrating Hand gloves and wear appropriate PPE	GSR 2(3)(a)(e)	1.5	-0.5	2.0	3.0	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 028	Concrete pouring	Handling concrete without wearing gloves	Working without hand gloves	Skin dermatitis	P	2.0	0.5	3.0	5.5	Medium Risk	Safe Work Procedure on handling poker unit to be briefed in Toolbox Talks and Pre-job briefings	SHE representative and Foreman to assess and review materials handling	Person wear appropriate PPE (Gumboots). Adhere to SWP and PTO on activity.	GSR 2(3)(a)(e)	2.0	-0.5	2.0	3.5	Low Risk	A Khudumyane	Y Nompumza	M Van Rooyen	2022-08-01

NPM	Civils	Activity 029	Handling and carrying of scaffold materials	Material handling	Ergonomics	Back injuries	P	3.0	0.5	3.0	6.5	Medium Risk	Assess load before lifting of the load. Apply 2 MAN Rule when carrying boards etc. Allow for short breaks depending on size of job	Ergonomics assessment on work scope. Assess work related back injuries and re-evaluate SWP	HSE- Site inductions and safety awareness sessions. Toolbox talks. Pre-job briefings. HP Tools	Occupational Health and Safety Act.85 of 1993 section 8(1)	3.0	-0.5	1.0	3.5	Low Risk	A Khudunyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 030	Handling, carrying, erecting and dismantling of scaffold materials	Incorrect handling of scaffold materials	Pinch points	Injury, lacerations, bruising	P	3.0	0.5	2.0	5.5	Medium Risk	Competent appointed supervisor to be present as the activity takes place at all times	Materials Handling training. Supervisor to do briefing prior to task. Discuss challenge(s). Check CR's and OE on operations and re-evaluate SWP.	All scaffolding erectors to be trained, competent and certified on Materials handling. Apply 2M-Rule and situational awareness	Occupational Health and Safety Act 85 of 1993 section 8(1)(2),14(a)	3.0	0.5	1.0	4.5	Low Risk	A Khudunyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 031	Passing of materials whilst erecting the scaffold	Handling and stacking of scaffolding materials	Knocking the nearby equipment's	Property damage	A	3.0	0.5	3.0	6.5	Medium Risk	Adequate stacking and erecting methods to be used. Defective or broken scaffold material to be guaranteed and removed from system	Effective communication methods to be used. Peer checking and Pre/Post job briefing to apply	Working at heights training. HP Tools. Toolbox talks. STAR 2M-Rule. Make use of twist and pull method	Construction Regulation 16(2),OHS Act.85 of 1993 section 8(1)	3.0	-0.5	2.0	4.5	Low Risk	A Khudunyane		M Van Rooyen	2022-08-01
NPM	Civils	Activity 034	Human Factor	Fatigue	Depression. Sleeping on job	Injury / Reduced decision making ability	P	2.0	0.5	3.0	5.5	Medium Risk	Prescribed working hours per shift	Medical Surveillances	SHE Talks on fatigue	Basic condition of Employment Act,1997 Sec. 50(1) (b)	2.0	0.0	1.0	3.0	Low Risk	A Khudunyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 036	Waste disposal	Incorrect disposal of hazardous and non-hazardous waste and scrap	Damage to the Environment	Environmental pollution	E	2.5	-0.5	1.0	3.0	Low Risk	Adhere to KAE-012 process for Hazardous & non-Hazardous waste & scrap disposal	SHE Representative / Safety Officer to monitor	Environment awareness and impact on micro-organism, plant and animal life. Keep all records of waste / scrap disposal	National Environmental Management: Waste Act No.59 of 2008	2.5	-1.0	1.0	2.5	Very Low Risk	A Khudunyane	Y Nompumza	M Van Rooyen	2022-08-01
NPM	Civils	Activity 037	Construction site	Poor Housekeeping	Debris and waste block egresses and access to work areas	Trip and fall	E	2.5	0.0	3.0	5.5	Medium Risk	All waste and debris is to be placed in waste separation bins provided on site and once full to be taken to Site waste disposal area	Safe Work Procedures according Inspections and awareness. Post Job Briefing	Foreman are to manage and control disposal of all waste on site at appropriate intervals	Construction Regulation 27(b)(d)(f)	2.5	-0.5	2.0	4.0	Low Risk	A Khudunyane	Y Nompumza	M Van Rooyen	2022-08-01
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