

The impact of each activity on each receptor was assessed according to magnitude on a scale of -10 to 10, where negative values indicate a negative influence on the receptor, and importance on a scale of 0 to 10, which encompasses the probability of occurrence, frequency of the impact etc. The numbering system is used as a relative measure, where more negative numbers correspond to impacts having a higher negative magnitude. Susceptible receptors and corresponding activity are deduced and addressed if both magnitude and importance are of minor severity. **As per the following table:**

			Project Phases																Assessment																																		
Receptor Category	Component	Activities Receptor	Construction												Operation				Construction		Operation																																
			Transport of equipment/ machinery- truck driving		Temporary storage/unloading of equipment and materials		Site preparation: Area delineation & Fencing		Working in outdoor environment		Excavation		buildings construction		placement wiring and electrical connections		Waste Generation		PRS operation		odorous unit (replacing or refueling tanks)		Waste Generation		Routine inspection and maintenance		Magnitude	Importance	Magnitude	Importance																							
			M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I																													
PHYSICAL	Soil	Soil Degradation					-3		2				-2		2												-7	6	0	0																							
		Soil Pollution			-2		1								-1		1		-5		5		5		5		5		-8	7	-15	15																					
		Landscape			-2		2		-3		5			-2		5												-9	17	0	0																						
	Air	Emission of Gases	-2		2				-2		2			-3		2			-2		2						-2		3		-1	1	-13	12	-7	10																	
		Emission of dust	-4		3				-4		3				-6		6			-3		4					-6		4				-3	3	-23	20	-9	9															
	Water	Surface water pollution																																		0	0	-9	9														
	Noise	Background noise level	-2		2		-2		2		3				-4		1																					-24	22	-2	1												
BIOLOGICAL	Flora	Trees and plants	-1		1																																		-4	3	-6	6											
	Fauna	Dogs, Cats, Pigeons	-1		1		-1		1																																-9	9	6	6									
SOCIO-ECONOMIC		OHS Workers	-2		2		-5		4		-2		1		-6		6		-5		4																						-2	2	-38	27	-8	5					
		Infrastructure and underground utilities																																													-1	1	0	0			
		Traffic	-3		2																																											-5	3	0	0		
		Community Health , Safety & Security	-2		2		-1		1																																								-2	2	-12	12	-16
Total			-17	15	-13	13	-25	19	-6	6	-29	31	-19	22	-17	15	-27	18	-20	21	-20	21	-20	21	-20	21	-6	5	-153	139	-66	68																					

Further, the **Buroz** Relevant Integrated Criteria and is used to determine the total importance, I, of the impact for each activity on all receptors and of the project overall.

On the basis of the value of the importance of impact, I, obtained, the severity of the impact of an activity is assessed.

Criterion	Definition	Scoring Scale
Intensity (IN)	Degree of destruction of activity on receptor	1 (lowest)-12 (highest)
Extension (EX)	Theoretical area of influence of the impact	1 (localized) – 8 (widespread)
Momentum (MO)	Period of time for manifestation of the impact	4 (immediate: <1 year) – 2 (medium: 1-5 years)- 1 (long term: > 5 years)
Persistence (PE)	Duration of the effect of the impact	1 (fleeting, < 1 year), 2 (temporary, 1-5 years), 4 (permanent, >5 years)
Reversibility (RV)	Possibility of returning to pre-activity initial conditions by rebuilding or natural means	1 (short term, < 1 year)- 2 (medium term, 1-5 years) – 4 (long term, > 5 years or irreversible)
Recoverability (MC)	Possibility of reconstruction with corrective measures	1 -2 (full and immediate recovery)- 4 (partial recovery and medium term)- 8 (unrecoverable)
Synergy (SI)	Reinforcement ability of manifested effects	1(No synergy of actions on a receptor) -2 (moderate synergism)-4 (high synergy)
Accumulation (Ac)	Progressive increase of the effect	1 (no cumulative effect)-4(cumulative effect)
Effect (EF)	Directionality of impact-the cause (action)-effect (impact)	4 (direct)- 1 (indirect)
Frequency (PR)	Regularity of manifestation of the effect	4 (continuous) – 2 (irregular)-1 (periodic)
Importance of Impact (I)	$I = \pm (3 \times IN + 2 \times EX + MO + PE + RV + SI + AC + EF + PR + MC)$	

The table below is based on the Buroz's Relevant Integrated Criteria:

Activities \ Receptor	Construction									Operation and maintenance			
	Transport of equipment/ machinery- truck driving	Temporary storage/unloading of equipment and materials	Site preparation: Area delineation & Fencing	Working in outdoor environment	Excavation	buildings construction	Installation of mechanical equipment	placement wiring and electrical connections	Waste Generation	PRS operation	odorous unit (replacing or refilling tanks)	waste generation	Routine inspection and maintenance
Type of impact									-				
Intensity (IN)/12	2	12	12	9	12	12	6	6	6	6	10	9	8
Extension (EX)/8	6	2	2	2	2	2	1	1	1	1	2	4	4
Momentum (MO)/4	4	4	4	4	4	4	4	4	4	4	4	4	4
Persistence (PE)/5	1	1	1	1	1	1	1	2	4	1	1	2	1
Reversibility (RV)/4	1	1	1	1	1	1	1	4	1	1	1	1	1
Sinergy (SJ)/4	1	1	1	2	1	1	1	1	4	1	1	1	2
Acumulation (AC)/4	1	1	1	2	1	1	1	1	4	1	1	4	1
Effect (EF)/4	4	4	4	4	4	4	1	1	4	1	4	4	4
Frequency (PR)/4	2	2	1	3	1	1	1	1	4	1	1	1	1
Recoverability (MC)/8	1	1	1	4	1	4	4	4	1	1	4	1	1
Importance of impact (I)	33	55	54	52	54	57	34	38	46	31	51	53	47
Sub-Average (I)	47.0									45.5			
Total-Average (I)	46.3												

None/ irrelevant	0	25
Minor Severity	26	50
Medium Severity	51	75
Major Severity	76	300

