

Activity	Environmental Aspects	Possible Impacts	Severity of Impacts
<b>Storage of Hazardous substances and Dangerous goods.</b>	Spillage of hazardous chemicals	Spillage of hazardous chemicals may result in : *soil and water pollution; *affect on flora/fauna or human health; *affect on landscape and natural beauty; *compliance issues, breach of licences resulting in fines and/or goal; *Huge costs for remediation of the site; *Community concern;	high
	Fumes or emissions due to Fire or explosion in storage area	Fumes or emissions due to fire or explosion in storage areas of hazardous chemicals/dangerous goods may result in : *air pollution; *soil and water pollution; *affect on flora/fauna or human health; *affect on landscape and natural beauty; *compliance issues, breach of licences resulting in fines and/or goal; *Huge costs for remediation of the site; *Community concern;	high
<b>Handling of Hazardous substances and Dangerous goods.</b> (spillage, solid and liquid waste, accidents, fire, etc)	Hazardous waste generation	Mismanagement of hazardous waste may result in : *soil and water pollution; *affect on flora/fauna or human health; *affect on landscape and natural beauty; *compliance issues, breach of licences resulting in fines and/or goal; *Huge costs for proper disposal of the waste;	high
	Airborne emissions	Unchecked airborne emissions from hazardous chemicals can cause: *Exposure to Lab user; *Exposure to onsite and offsite residents; *Affect on flora/fauna or human health; *Compliance issues, breach of licences resulting in fines and/or goal; *Community concern;	high
	Emissions to Water	Mismanagement of Liquids effluents may result in: *Contamination of surface waters; *Contamination of Ground waters; *Storm water pollution; *Soil Contamination; *Affect on Ecosystem and human health; *breach of the Sydney Water Trade Waste Agreement; *Fines and Compliance issues;	high
	Spillage of hazardous chemicals	Spillage of hazardous chemicals may result in : *soil and water pollution; *affect on flora/fauna or human health; *affect on landscape and natural beauty; *compliance issues, breach of licences resulting in fines and/or goal; *Huge costs for remediation of the site; *Community concern;	high
	Fumes or emissions due to Fire or explosion in laboratory	Fumes or emissions due to fire or explosion in a lab may result in : *air pollution; *soil and water pollution; *affect on flora/fauna or human health due to emissions; *affect on landscape and natural beauty due to emissions; *compliance issues, breach of licences resulting in fines and/or goal; *Huge costs for remediation of the site; *Community concern;	high
<b>Storage and handling of Radioactive substances.</b>	Radioactive waste generation	Mismanagement of radioactive substances can cause: *soil and water pollution; *affect on flora/fauna or human health; *affect on landscape and natural beauty; *compliance issues, breach of licences resulting in fines and/or goal; *Expensive storage requirements for the waste till it neutralizes; *Can raise concern in community;	high
	Accidents/Spillage of radioactive substances	Spillage of Radioactive substances may result in : *soil and water pollution; *affect on flora/fauna or human health; *affect on landscape and natural beauty; *compliance issues, breach of licences resulting in fines and/or goal; *Huge costs for remediation of the site; *Can raise concern in community;	high

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<b>Storage and handling of Biological / pathological substances.</b>	Biological / pathological / infectious/ Medical waste generation	Mismanagement of Biological/pathological waste may result in : *soil and water pollution; *affect on flora/fauna or human health; *affect on landscape and natural beauty; *compliance issues, breach of licences resulting in fines and/or goal; *Huge costs for proper disposal of the waste;	high
	Accident/spillage of biological/pathological substances	Spillage of Biological/pathological substances may result in: *Adverse affect on human health; *Soil and water pollution; *affect on flora/fauna; *affect on landscape and natural beauty; *Compliance issues, breach of licences resulting in fines and/or goal; *Huge costs for remediation of site; *Additional negative impacts on the point of disposal offsite; *Can raise concern in community;	high
<b>Transport of hazardous substances/dangerous goods/radioactive subs/biological subs</b>	Accidents, release in environment	Accidental release of these hazardous substances may result in : *soil and water pollution; *affect on flora/fauna or human health; *affect on landscape and natural beauty; *compliance issues, breach of licences resulting in fines and/or goal; *Huge costs for remediation of the site (e.g. heavy metal contamination); *Community concern; *Irreversible damage to the ecosystem (via storm water pollution which directly goes to the sea in Sydney)	moderate to high
<b>General Activities</b>	Mixed waste generation	Mismanagement of municipal waste can cause: *Soil and/or water contamination *Affect flora/fauna or human health; *Affect landscape and natural beauty; *Heavy costs for the removal of waste; *Burden on landfill;	low
<b>Equipment, lighting etc</b>	Energy consumption, Atmospheric emissions	Excessive energy consumption may result in: *depletion of natural resources; *contribution to the green house gas emissions; *deleterious environmental impacts at the power generation source (both air and water emissions); *Huge energy costs;	low
	Environmental Noise	Excessive noise generation can cause: *community concern; *effect on lab inhibitor's health; *Can result in compliance issues and fines.	low
<b>Water Usage</b>	Water consumption	Excessive water consumption may result in: *depletion of water resources; *effects on eco system; *Water costs;	low
<b>Office materials usage such as paper, plastic, printer cartridges, white goods etc</b>	Waste generation	Excessive use of paper and other resources may result in: *Declining non-renewable resource stocks for current and future generations; *contribution towards the increasingly unsustainable use of renewable resources *increased landfill space requirements; green house gas emissions (methane from landfill, energy during life cycle of the goods).	low

**Note:** The severity of the Environmental impacts is assessed on bases of the risk posed to the environment/public. Main criteria used for determining the significance of impact are frequency/probability; magnitude; duration; location and timing; concerns of the community. (Australian standard HB 206 pp 22)

**References:**

Brookhaven National Laboratory (2001), "Identification of significant environmental aspects and impacts", Standard Based Management System (SBMS), available at: [https://sbms.bnl.gov/sbmsearch/subjarea/31/31\\_SA.cfm](https://sbms.bnl.gov/sbmsearch/subjarea/31/31_SA.cfm) Accessed March 2, 2006

Australian Standard HB 206 (2004), " Handbook: Initial environmental review", Standards Australia International, Sydney

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