

LIMITS FOR THE ACCUMULATION & DISPOSAL OF RADIOACTIVE WASTE

Environmental Permitting (England & Wales) Regulations 2016 (EPR)

WELLCOME TRUST CENTRE FOR HUMAN GENETICS, ORC

Effective 1st June 2020

The following tables detail:

- The limits (activity, volume and time) for accumulation of radioactive waste on the premises.
- The limits for the total quantity of radioactive material that can be disposed of from the premises by specified route.

The limits must not be exceeded unless prior written agreement has been obtained from the University Radiation Protection Officer.

The department's limits are based on a division of the overall site limits contained in the University's Permit to keep, use, accumulate and dispose of radioactivity on and from the multiple departments on the combined Old Road Campus & Churchill Hospital site (no. EPR/FB3898DS/V004). A copy of the Permit is displayed and contains conditions that must be complied with.

Accumulation Limits

Limits for accumulation of ORGANIC LIQUID radioactive waste (MBq)		Max volume of accumulated OL waste in department	Max period of accumulation (from generation to removal from site)
^3H	15 MBq	0.2 m ³ (or eight $\frac{3}{4}$ full drums; with 50% air space in each)	12 months
^{14}C	3 MBq		
$^{123}\text{I} / ^{125}\text{I} / ^{131}\text{I}$	0		
Alpha emitters	0		
Other non-alpha	6 MBq		

Limits for accumulation of SOLID radioactive waste (MBq)		Max volume of accumulated solid waste in department	Max period of accumulation (from generation to removal from site)
³ H	120 MBq	1 m ³ (or twenty ¾ full drums)	12 months
¹¹ C	0		
¹⁴ C	60 MBq		
¹⁸ F	0		
³² P / ³³ P	60 MBq		
³⁵ S	1100 MBq		
⁶⁴ Cu	0		
⁸⁹ Zr	0		
^{99m} Tc	0		
¹¹¹ In	0		
¹²³ I / ¹²⁵ I / ¹³¹ I	10 MBq		
¹⁷⁷ Lu	0		
Alpha emitters	0		
Others with T _{1/2} < 4d	0		
Other non-alpha	30 MBq		

Limits for accumulation of **GASEOUS radioactive waste (MBq)**

No accumulation of gaseous waste permitted

Limits for accumulation of **AQUEOUS radioactive waste (MBq)**

No accumulation of aqueous waste permitted

Disposal limits

MONTHLY AQUEOUS limits (MBq)	
³ H	360 MBq per month
¹⁴ C	10 MBq per month
³² P / ³³ P	105 MBq per month
³⁵ S	1785 MBq per month
⁵¹ Cr	100 MBq per month
⁶⁴ Cu	0
^{99m} Tc	0
¹¹¹ In	0
¹²³ I / ¹²⁵ I / ¹³¹ I	150 MBq per month
Alpha emitters	0
Other non-alpha	0

ANNUAL OL limits (MBq)	
³ H	25 MBq per year
¹⁴ C	5 MBq per year
¹²³ I / ¹²⁵ I / ¹³¹ I	0
Alpha emitters	0
Other non-alpha	12 MBq per year

ANNUAL SOLID limits (MBq)	
³ H	240 MBq per year
¹⁴ C	120 MBq per year
³² P / ³³ P	120 MBq per year
³⁵ S	2200 MBq per year
^{99m} Tc	0
¹¹¹ In	0
¹²³ I / ¹²⁵ I / ¹³¹ I	20 MBq per year
Alpha emitters	0
Other non-alpha	60 MBq per year

GASEOUS disposal limits		
Isotope	ANNUAL limit (MBq)	DAILY limit (MBq)
¹²⁵ I	24 MBq per year	2 MBq per day
Any other isotope	0	0

SENIOR RPS RESPONSIBLE FOR RADIOACTIVE WASTE DISPOSAL AT THE WELLCOME TRUST CENTRE:

John Reader

....oversees the accumulation and disposal of radioactive materials and waste by the department to ensure that the above limits are not exceeded and conditions of the site EPR Permits are complied with.

Advice on any aspect of compliance with these limits and the EPR Permits may also be obtained from Paul Kayente (University Radiation Protection Officer) on 01865 270802.