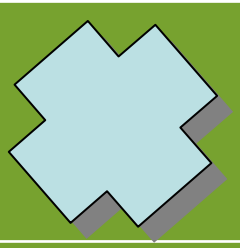
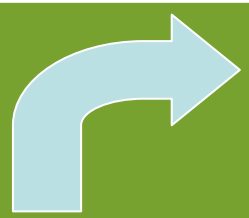
Sellafield Radioactive Waste Disposals: Consultation on proposed changes to permit

Briefing for WCSSG (Jan 2010)

Background

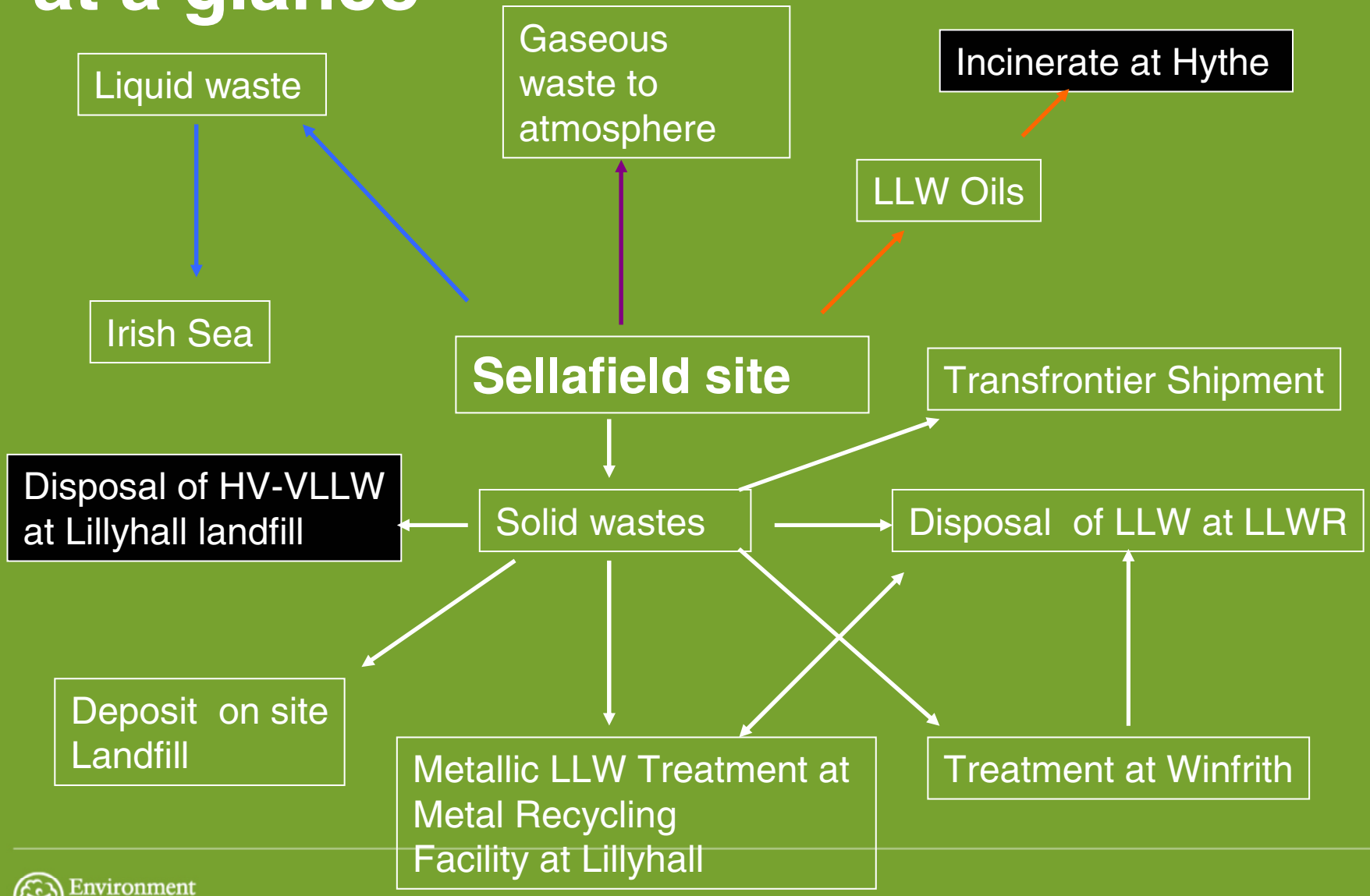
- Radioactive Substances Act authorisation (permit) held by Sellafield
- Strict controls on radioactive waste disposals – limits and conditions
- Annual periodic review
- Normally consult statutory consultees and inform others
- Wider consultation this time due to a proposal to increase a site limit

Summary of main proposals

			
Decrease in: ➔Six site limits for aerial and liquid discharges ➔Twenty facility (or plant) limits To reduce the gap between actual discharges (which have reduced) and the limits i.e. unnecessary 'head room'	**Increase in:** ➔Site limit for antimony-125 in aerial discharges	**Removal of:** ➔Two plant limits no longer needed ➔Throughput related aerial tritium limits for Thorp	**New disposal routes for:** ➔ High volume very low level (HV-VLLW) waste to Lillyhall landfill ➔ Low level waste oils to an incinerator in Hythe, Hampshire

Environment Agency

Main disposal routes and proposals at a glance



Environment Agency

Main Changes to Liquid Discharges

Changes	4 site limit decreases 10 plant limit decreases
Reason	Reduced future rates of reprocessing mean that future discharges will be reduced
Impact	Radiation exposures of public already well below legal limits. Potential **reduction** of about 5%

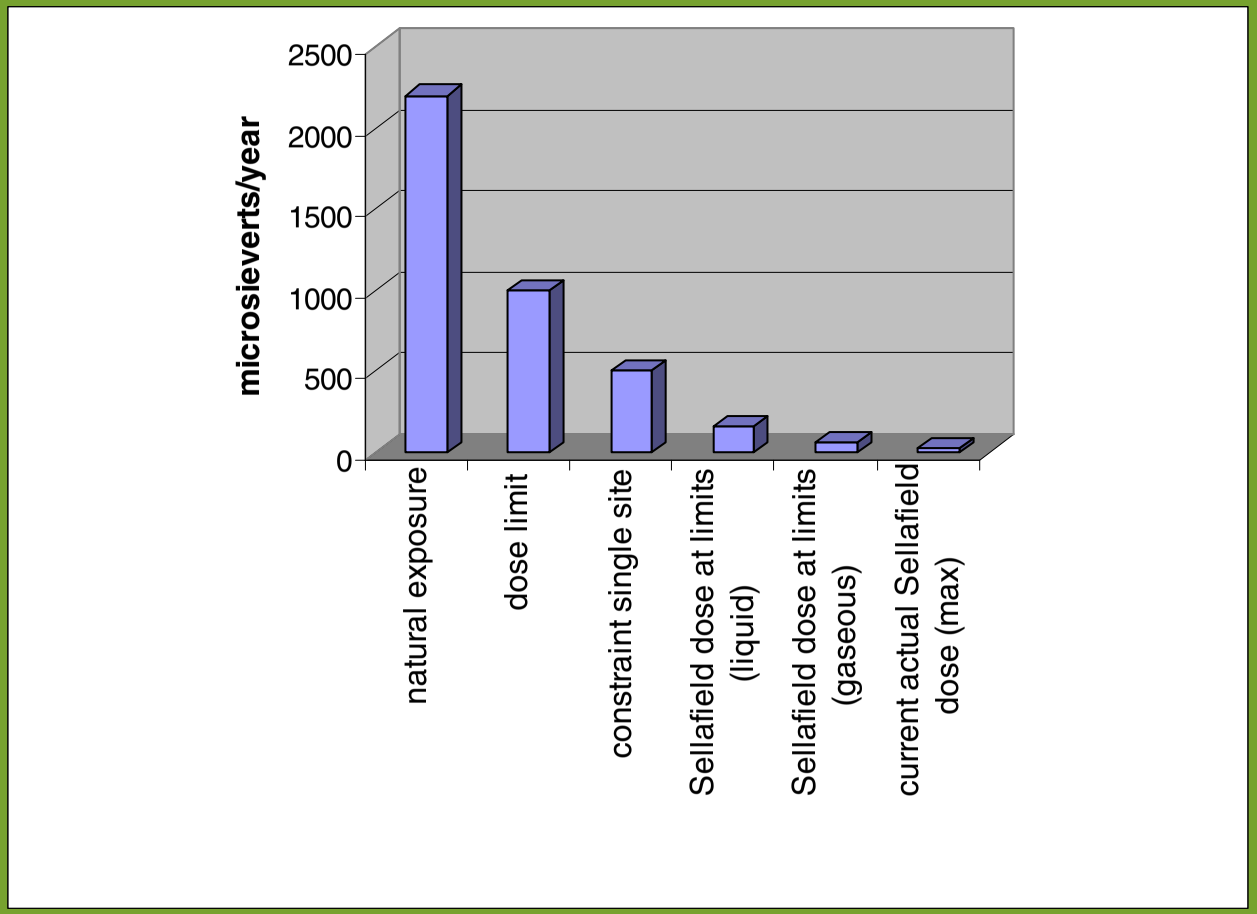
Main Changes to Aerial Discharges

Changes	Increase in 1 site limit (for antimony-125) Decrease in 2 site limits Decrease in 10 plant limits
Reasons	Increase in antimony-125 discharge limit to avoid undue constraint on reprocessing which will cause greater impacts Reduced future rates of reprocessing mean that discharges of other radionuclides reduced
Impact	Radiation exposures of public already well below legal limits. Potential reduction in overall radiation exposure by about 3%. [increase in antimony-125 discharge alone will result in about 0.4% increase in radiation exposure]

Other Main Changes

New routes	Transfer of small volumes of trace radioactive oil to Hythe incinerator Transfer of HV-VLLW to Lillyhall landfill for disposal
Reason	Hythe incinerator has RSA authorisation and already treats trace radioactive oils from nuclear industry and no practicable alternative at present Lillyhall landfill has applied separately to EA for an authorisation to dispose of HV-VLLW
Benefits	Removal of some stored oils will allow decommissioning projects that result in waste oil to progress Use of a specified landfill for HV-VLLW will allow on-site landfill and LLWR to be reserved for more radioactive low level waste

Radiation exposure in context



Radiation exposure in context

- Average natural radiation dose to people is about 2,200 microSieverts per year
- Public dose limit for artificial sources is 1,000 microSieverts per year
- Dose constraint of 500 microSieverts per year from any one site
- Exposures from Sellafield discharges, if made at discharge limits, are well below the legal dose limits
- Discharges generally lot lower than discharge limits

How to comment?

All comments need to be provided by 8 February 2010.

- By email to NRGNorth@environment-agency.gov.uk
- By post to Nuclear Regulation Group (North), (Sellafield and Windscale Authorisation), Environment Agency, Ghyll Mount, Gillan Way, Penrith, Cumbria CA11 9BP
- By Fax to 01768 865606

If you have any questions, phone 01768 215729