

Executive Summary

This Appropriate Person Report includes a comprehensive study of land ownership and history at Dalgety Bay. Donibristle airbase opened in August 1917 with the Royal Airforce (RAF) taking over in 1918. The airfield, HMS Merlin, was commissioned in 1939 as a Royal Naval Aircraft Repair Yard and decommissioned in 1959 before being sold off through the 1960s. Subsequently, Dalgety Bay New Town and industrial premises were built in the area. All interested parties, former or current owners or occupiers of the land, have been identified and contacted where appropriate. This Report should be read in conjunction with the Scottish Environment Protection Agency (SEPA) recently published Risk Assessment Report (Dale, P. 2013) and the Ministry of Defence contractors intrusive investigation report: AMEC Factual Investigation Report (AMEC, 2013c).

It is concluded that the luminising of aircraft instrument dials using paint containing radium-226 was routinely undertaken at HMS Merlin. This was common practice at such sites and is supported by witness statements. It is also understood that solid wastes arising were incinerated and disposed on site. Again this was common practice and witness statements recount the burning of dials and other cockpit parts with ashes being disposed near the shore.

This Report reviews historic aerial photographs of the site along with historic OS maps. These indicate the presence of a deposit of material in 1945 on the shore to the east of New Harbour which is later mapped as a refuse tip by OS in 1963/64. A second area mapped as a refuse tip by the same date is located at what is now Sealstrand. Both appear to be connected to what was the Salvage Section on the airbase.

Intrusive investigations undertaken by Ministry of Defence, witnessed by SEPA, and studies, including ground penetrating radar surveys, undertaken on behalf of SEPA identify a deposit of made ground at the Headland. This consists mainly of radioactive ash and clinker and associated radioactive and inert artefacts. Studies of the historic coastline and trial pit data suggest this material was deposited before 1959 when the site was operating as an airbase.

A second area of radioactive ash and clinker, also believed to be deposited before 1959, was identified to the landward side of the Demarcated Area, the Boat Park and the Slipways.

Aerial photographs show erosion of the Headland over time and accretion of sediments in the bay. Dalgety Bay Sailing Club emplaced rock armour at the Headland to reduce the extent of the erosion.

Analysis of historic spot height data and maps suggests it is unlikely that there were any major terrestrial disturbance of contaminated material by the developers or subsequent land owners at the Dalgety Bay New Town or associated industrial premises, with development proceeding on a plot by plot basis.

The contamination is the result of disposal of contaminated ash during the lifetime of HMS Merlin and this has been identified at depth in the Headland, Boat Park and Demarcated areas with no evidence that this material, deposited prior to 1959, has been significantly disturbed other than by coastal action.

Contamination on the foreshore at Dalgety Bay is the result of erosion of deposited material and subsequent re-working and re-deposition of contaminated marine sediments resulting from coastal erosion, as process which is considered to be a normal part of life.

SEPA does not consider that development companies associated with the New Town are an Appropriate Person as contamination was already present in the Headland when construction of the town commenced and was not subsequently disturbed.

The Dalgety Bay Sailing Club is considered not to be an Appropriate Person as it did not cause or exacerbate the contamination on the foreshore by constructing the clubhouse, emplacing the rock armour or extending the Boat Park area.

SEPA considers the Ministry of Defence to be the sole Class A Appropriate Person for the identified significant pollution linkage present in the Slipways Area, the Boat Park and the Demarcated Area.