for an atomic bomb type of explosion to take place in any submarine.

031 Should a nuclear accident occur in a nuclear submarine the effect would be, at the worse, a small release of radio-activity. The possibility of such an accident occuring is extremely remote but this Scheme has been prepared to ensure that the public will be safeguarded even in such an unlikely event.

032 In the case of nuclear accident to a submarine reactor, the submarine will be converted into a source of radiation but initially only Gamma radiation would be able to penetrate the bulkheads and hull of the vessel. As the heat and pressure in the submarine increase, volatile and gaseous fission products only are forced out and released to the atmosphere. This "cloud" of fission products will pour downwind from the submarine, but, while being diluted in the atmosphere and dispersed by the wind, may produce a hazard if inhaled or if consumed after being deposited on uncovered food and crops. For instance, a cow grazing on contaminated grass may collect radio-active iodine and pass this on in the milk it produces.

033 The Iodine 131 component of the radio-active cloud is relatively so large from a hazard point of view compared with any or all of the other constituents that a plan which provides protection from it ensures protection from the effects of the other constituents. The Iodine 131 hazard arises from internal irradiation of the thyroid by radio-active iodine concentrated therein following inhalation or ingestion. Because the thyroid weight varies considerably as between children and adults, the former cannot accept as much Iodine 131 as the latter. Children should therefore be given priority in any evacuation scheme.

034 It must be realised that airborne radio-activity may spread over large areas and contaminate food and water supplies in addition to crops. Consumption of milk, water, food may therefore have to be controlled or prevented altogether until a full monitoring programme has been carried out.

1967 Safety scheme

The 61 scheme included nuclear weapons and a map of Holy Loch showing 5½ mile radius

Authority	Office	Home
Atomic Energy Authority, Chapelcross	ANNAN 2835 Ext. 300/301	-
Atomic Energy Authority, London Office	WHITEHALL 6262 Ex. 151	
Area Agricultural Defence Officer, Argyll Area.	OBAN 3071	OBAN 2612
Area Agricultural Defence Officer, Clyde Area.	GLASGOW DOUGLAS 9161	BEARSDEN 3384 (Mr. G.S. Lawrie)or MERRYLEE 4838 (Mr. J. Mechie) or HAMILTON 21491 (Mr. G.M.B. Redpath)
A.W.R.E., Aldermaston	READING Trunk Sub 001	-
Base Health and Safety Officer, C.S.B.	HELENSBURGH 4321	
Captain in Charge, Clyde	GREENOCK 24481	GREENOCK 24481
Captain (S/M), 3rd Submarine Squadron	HELENSBURGH 4321 (or through CAPIC CLYDE's Exchange)	-
Chairman, Nuclear Technical Safety Panel	WHITEHALL 9000 Ext. 1458.	-
Chief Constable, ARGYLL	LOCHGILPHEAD 222	ARDRISHAIG 232
Chief Constable, DUNBARTON	DUMBARTON 3311	BEARSDEN 2424
Chief Constable, GREENOCK	GREENOCK 21271/3	GREENOCK 22747
Chief Constable, RENFREW AND BUTE	PAISLEY 3251/2	HALFWAY 5674
Chief of Naval Information	WHITEHALL 9000 Ext. 983	-
CINCUSNAVEUR (British Naval Liaison Officer)	WHITEHALL 9000 Ext. 939	-
Civil Defence Officer, BUTE	ROTHESAY 1160	ROTHESAY 1366
Civil Defence Officer, ARGYLL	LOCHGILPHEAD 268	LOCHGILPHEAD 222
Civil Defence Officer, DUNBARTON.	DUMBARTON 2351	ALEXANDRIA 2593
Clerk, County of Renfrew Joint C.D. Committee.	PAISLEY 5400	THORNLY PARK 2394
Croup C.D.O., Renfrewshire	PAISLEY 2251	KILBARCHAN 2510

Clyde/...