

## ENCLOSURE 1

Activity of wastes disposed at each of the 10 locations at Chatham (including modelled activity to 1986 and 2012 based on Cobalt-60).

~~RESTRICTED~~

### APPENDIX A - ACTIVITY HOLDINGS OF BURIAL PITS

<u>Pit No</u>	<u>Start Date</u>	<u>Closure</u>	<u>Buried Activity GBq</u>	<u>Activity 1986 GBq</u>	<u>Activity 2012 GBq</u>
1	30.10.09	23.05.71	103.4	14.3	0.44
2	13.06.71	16.05.74	134.8	27.7	0.87
3	12.05.74	23.12.74	43.9	9.6	0.30
4	31.08.74	09.02.76	85.4	21.8	0.68
5	10.02.76	07.07.80	115.3	52.2	1.63
6	24.08.77	01.10.84	129.4	103.4	3.23
7	01.12.76	07.07.80	117.6	53.3	1.67
8	03.11.84	1986	17.4		
9	10.11.84	1986			
10	19.05.86	-	1.38		

Activities quoted in GBq

1 GBq = 27m Ci  
37 GBq = 1 Ci

Restricted activities are calculated by assuming all waste was buried on the day of closure and any activity is due to Co-60 alone.

A-1

~~RESTRICTED~~

## ENCLOSURE 2

GRD.

E 61



Department of the Environment  
Room Queen Anne's Chambers  
28 Broadway London SW1H 9JU

Telephone 01-330 4300 ext

Naval Home Division  
Ministry of Defence  
Main Building  
Whitehall  
LONDON SW1 2HB

Your reference

H/HO/690/1/73

Our reference

WD1/LG1/RAS/108

Date

9 July 1975

Dear [REDACTED]

RADIOACTIVE WASTE DISPOSAL  
H M DOCKYARD CHATHAM

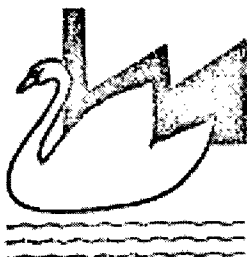
1. Further to your letter of 24 June, and [REDACTED] reply of 1 July, it is understood that the arisings of low activity solid wastes have unexpectedly increased at Chatham dockyard resulting from the current refitting of nuclear submarines, and a temporary increase in the level of radioactivity of the waste to be buried on the site is required up to the end of 1975.
2. As you are aware an authorisation was granted in 1968 to allow the burial of low activity waste within the dockyard up to a total of 1 curie in any one year; and on the understanding that MOD would retain control over the burial site for at least twenty-five years after the last burial there of radioactive waste.
3. In order to alleviate the immediate accumulation problem that has arisen in the dockyard, and on the understanding that the conditions set out in the letter of 22 May 1968 authorising the disposal of waste by burial in the dockyard are adhered to, approval is given to the variation of condition (c) in that letter for the year up to the end of 1975 only in that the total level of radioactivity in the waste disposed of is not more than 2 curies.
4. We would like to be kept fully informed of the consideration being given to disposing of radioactive wastes by other means as mentioned in para 2 of your letter of 24 June, and we would be pleased to assist in any way we can.
5. The Kent County and Medway District Councils have been informed of the variation in the authorisation.
6. A copy of this letter has been sent to [REDACTED], Ministry of Agriculture, Fisheries and Food, and to [REDACTED] MOD Chatham.

Yours sincerely



## ENCLOSURE 2

PJ

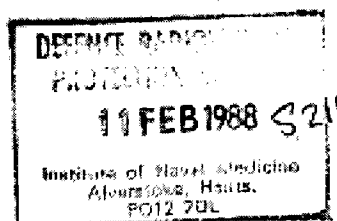


251/50/27  
NP 19

HER MAJESTY'S  
INSPECTORATE OF POLLUTION  
Romney House 43 Marsham Street London SW1P 3PY

Room Direct Line 01-212- Switchboard 01-212 3434 GTN 212

Room 1605  
COB1  
HM Naval Base  
Portsmouth  
Hants, PO1 3NH



Your Reference A2510/15  
Our Reference RW/RAS/108  
Date 8 February 1988

Dear Sir

**HM DOCKYARD, CHATHAM -  
REVOCATION OF APPROVALS FOR THE DISPOSAL OF RADIOACTIVE WASTE**

1. I refer to previous correspondence about the approvals issued to the Ministry of Defence (Navy) by the Department of the Environment and, previously, by the Ministry of Housing and Local Government for the disposal of radioactive waste from HM Dockyard, Chatham (now Ministry of Defence, Gillingham).

2. It is noted that the decommissioning of the dockyard has been completed and that most of the resulting waste has been disposed of. Accordingly, the undermentioned approvals are hereby revoked with effect from the date of this letter.

<u>Date of Approval</u>	<u>Summary of Approval</u>
- 28 February 1968	- discharge of liquid waste to River Medway
- 15 March 1971	- disposal of solid waste and sludge to the Atomic Energy Research Establishment, Harwell
- 2 November 1972	- discharge of laundry effluent to public sewers
- 4 September 1980	- burial of solid waste with special precautions on-site near the Gillingham Gate

3. It is further noted that the Ministry of Defence (Navy) has given the following undertaking:

"With regard to the approval issued by the Department of the Environment on 4 September 1980 for the burial of solid low-level radioactive waste near the Gillingham Gate at the site shown on the plan attached /entitled 'Shore Establishment Machinery Organisation (Gillingham)'/ the Ministry of Defence (Navy) hereby undertakes that it will retain control over the burial site at least until 8 October 2011, ie, a date 25 years after the date of the last burial there of radioactive waste."

4. The following approvals will remain in force for the time being:



**ENCLOSURE 2**

<u>Date of Approval</u>	<u>Summary of Approval</u>
- 15 June 1972	- disposal of solid waste to a tip (no special precautions)
- 20 October 1975	- discharge of hand-washing water etc to public sewers
- 4 November 1981	- disposal of solid waste containing beta/gamma emitting radioisotopes (principally cobalt 60) to British Nuclear Fuels plc, Drigg, Cumbria
- December 1983	- disposal of solid radium and tritium luminised waste from Chatham Dockyard and other naval establishments to British Nuclear Fuels plc at Drigg, Cumbria

The waste described in the approvals dated 1981 and 1983 is stored at Ministry of Defence, Gillingham pending disposal to Drigg.

5. Those to whom this letter has been copied are listed in the annex.

Yours faithfully

  
HM Inspector of Pollution

**ENCLOSURE 2**

JL

ANNEX

The Chairman, Naval Nuclear Technical Safety Panel, Ministry of Defence,  
Room 1836, Express State Building, London SW6 1TR

██████████ Directorate General Ship Refitting, Ministry of Defence, Brecon  
Building, Block C, Foxhill, Bath, BA1 5AB

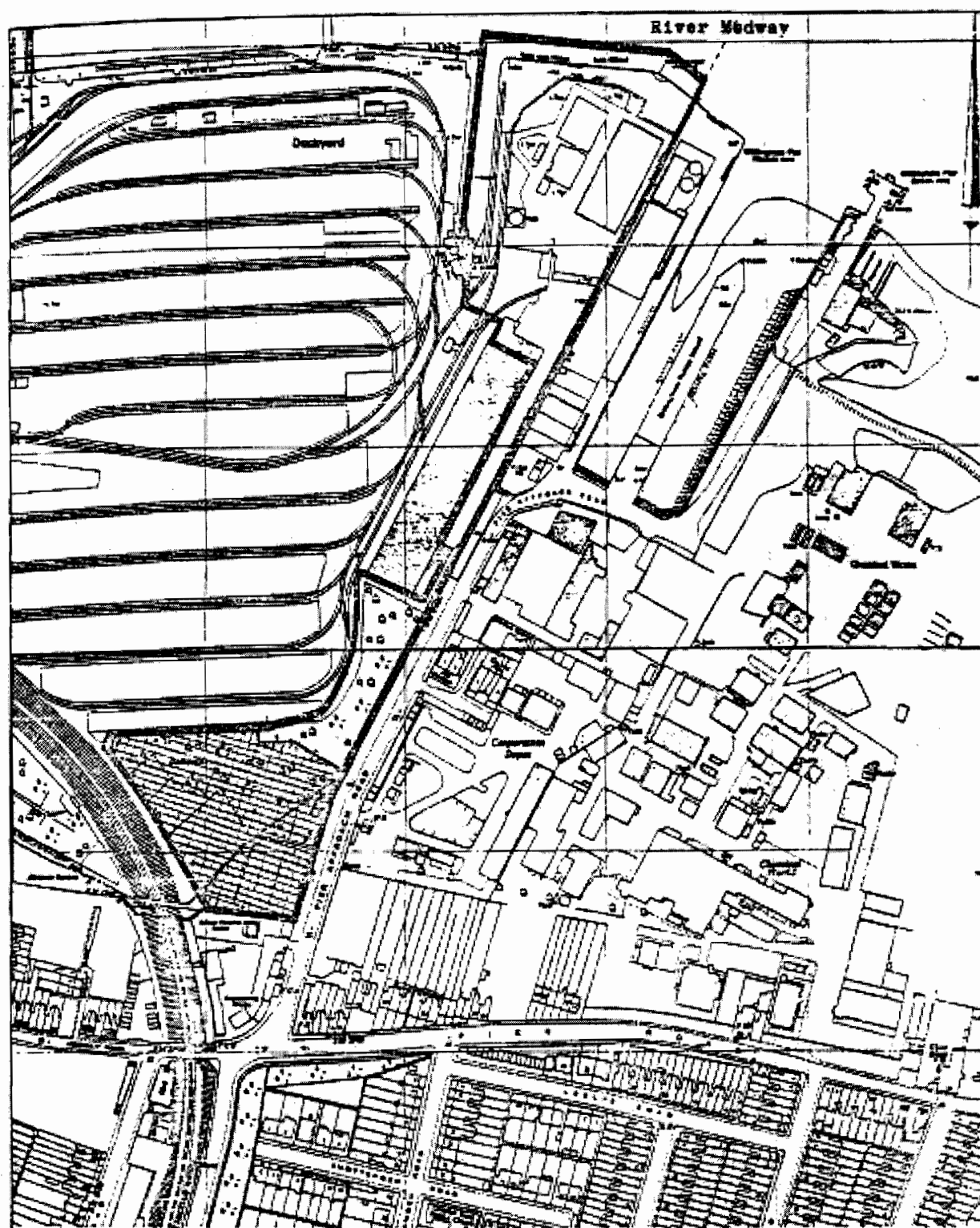
██████████ RSO, SEMO(G), Collier Dock, Old Dockyard, Gillingham, Kent,  
ME7 1NN

Head of the Defence Radiological Protection Service, Institute of Naval  
medicine, Crescent Road, Gosport, Hants PO12 2DL

██████████ Ministry of Agriculture, Fisheries and Food

## ENCLOSURE 2

## SHORE ESTABLISHMENT MACHINERY ORGANISATION (GILLINGHAM)



Denotes boundary  
of SEMO(G)

Denotes area of  
burial site

SCALE: 1:2675 (Approx)

Disposal of waste RE (NCP) 14.4.77

Solid Liquid Waste from MND Licence 56 Crich

CL

PDRW(77)28

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD

RADIOACTIVE SUBSTANCES ACT, 1960

CERTIFICATE OF AUTHORISATION FOR THE DISPOSAL OF RADIOACTIVE WASTE

1. This is to certify that Rolls Royce Limited (hereinafter called "the Company") is authorised under sections 6(1) and 6(3) of the Act, with effect from 14 April 1977 to dispose of radioactive waste falling within paragraph 2 of this Certificate on or from the Company's licensed site at Raynesway, Derby (hereinafter called "the premises"), subject to the conditions specified in paragraphs 3, 4, 5, 7 and 8 of this Certificate.
2. The waste referred to in the preceding paragraph is -
  - a. solid and liquid radioactive waste of any description;
  - b. substances and articles which are radioactive waste solely because they have been contaminated by contact with, or proximity to, the wastes described in sub-paragraph a, of this paragraph or with the radioactive materials from which those wastes arose.
3. The disposal of solid waste falling within paragraph 2 of this Certificate is authorised subject to the conditions specified in paragraph 8 of this Certificate and to the following conditions -
  - a. that the waste is disposed of by removing it to, or causing or permitting, its removal to, the place provided by the Company for the deposit of refuse at Hilt's Quarry, Crich, near Belper, Derbyshire (hereinafter called "the quarry");
  - b. that in all the waste so disposed of at any one time the sum total of microcuries of all the radionuclides present divided by the number of grammes of the waste does not exceed  $10^{-2}$ ;
  - c. that the sum total of microcuries of all the radionuclides (including those which are decay products of others present) in any one salvageable article constituting or comprised in the waste does not exceed 1;
  - d. that all the waste, other than tinamel, is as far as is practicable contained in sealed inner bags, or otherwise well wrapped, within closed metal outer containers; and
  - e. that immediately on arrival at the quarry the sealed inner bags, or wrapping, containing the waste, and the tinamel are buried beneath not less than 1.5 metres of earth or refuse which
    - i. is not radioactive waste; or
    - ii. is radioactive waste and is disposed of, in accordance with an authorisation under section 6 of the Act, with and in the same manner as waste of a similar nature but which is not radioactive waste;
    - iii. is radioactive waste which is excluded from the provisions of section 6(1) and (3) of the Act absolutely.

## ENCLOSURE 3

4. The disposal of solid waste falling within paragraph 2 of this Certificate is authorised subject to the conditions specified in paragraph 8 of this Certificate and to the following conditions:-

- a. that it is burnt on the Company's licensed site at such a place and in such a manner as to ensure that the gas or vapour arising from the burning is discharged into the open air at such points and in such a manner as to prevent, so far as is reasonably practicable, the entry of gas or vapour into any part of any premises;
- b. that in all the residual material the sum total of microcuries of all the radionuclides present divided by the number of grammes of the residual material does not exceed  $10^{-2}$ ; and
- c. that the residual material is disposed of in accordance with the conditions specified in paragraph 3 of this Certificate.

5. The disposal of solid waste falling within paragraph 2 of this Certificate is also authorised subject to the conditions specified in paragraph 8 of this Certificate and to the following conditions -

- a. that the waste is disposed of by removing it for burning, or causing or permitting its removal for burning, in the Derby County Borough Council's incinerator at Raynesway, Derby (hereinafter called "the Council's incinerator"); and
- b. that when the waste is removed to the Council's incinerator it is accompanied by a representative of the Company, who shall ensure that the waste is disposed of satisfactorily;
- c. that in all the waste removed to the Council's incinerator -
  - i. the sum total of grammes of uranium does not exceed 10 in any one day and 40 in any one calendar month; and
  - ii. the sum total of microcuries of all other radionuclides which emit alpha particles does not exceed 10 in any one day;
  - iii. the sum total of microcuries of all radionuclides which do not emit alpha particles, taken together, does not exceed 100 in any one day and 400 in any one calendar month; and
- d. that each consignment of waste removed to the Council's incinerator is accompanied by a declaration, signed on behalf of the Company, that it complies with the conditions specified in sub-paragraphs c.i, c.ii and c.iii of this paragraph.

6. After incineration, any residual ash resulting from the burning is to be dealt with in the following manner, that is to say, deposited by the Derby County Borough Council at, on or in the tip, dump or pit, used for the deposit in substantial quantities of waste which is not radioactive waste.

7. The disposal of waste falling within paragraph 2 of this Certificate, such as cannot be disposed of under the conditions specified in paragraphs 3, 4 and 5, is authorised subject to the conditions specified in paragraph 8 and to the condition that the waste is disposed of by removing it to, or causing or permitting its removal to the premises of Rolls-Royce and Associates Limited at Raynesway, Derby.



9

## ENCLOSURE 3

8. The further conditions subject to which the disposal of waste is authorised are -

- a. that in all the waste disposed of in any one year by the means specified in paragraphs 3 and 4 of this Certificate the sum total of kilogrammes of uranium does not exceed 15;
- b. that, in respect of waste disposed of by any of the means specified in this Certificate, the Company keeps and retains for inspection by any person authorised by the Minister in that behalf, records of disposals showing -
  - i. the description of the waste disposed of, the sum total of grammes or kilogrammes of uranium, and the names of and the sum total of millicuries or microcuries of all other radionuclides (excluding those which are decay products of others present) contained in the waste at the time of its disposal; and
  - ii. the means and date of its disposal;
- c. that as soon as possible after the end of each calendar month 2 copies of particulars of disposals made during that month are supplied to the Minister in such form as may be approved by him;
- d. that such samples of the waste, and of anything which the Minister considers may possess radioactivity attributable to its disposal, are taken as may be specified by the Minister.
- e. that, if the Minister so directs:-
  - i. samples taken in pursuance of the last preceding sub-paragraph are examined by such methods as the Minister may approve, and
  - ii. those samples are retained for such period as the Minister may specify for examination by or on behalf of any person authorised by the Minister in that behalf; and
- f. that records are kept showing the results of examinations undertaken in pursuance of the last preceding sub-paragraph and the methods of examination used, and retained for inspection by any person authorised by the Minister in that behalf.

9. In this Certificate:-

"the Act" means the Radioactive Substances Act 1960;

"the Company's licensed site" means the site at Raynesway in the County Borough of Derby occupied by Rolls-Royce (1971) Limited and licensed by the Secretary of State for Trade and Industry under section 1 of the Nuclear Installations Act 1965;

"radioactive waste" has the same meaning as in the Act;

"the Minister" means the Minister of Agriculture, Fisheries and Food; and any reference to the sum total of millicuries or microcuries is a reference to the sum total ascertained by measuring by any generally accepted method or,

where it is not reasonably practicable to ascertain the sum total by measuring the sum total estimated in any generally accepted manner.

In witness whereof the Official  
Seal of the Minister of Agriculture,  
Fisheries and Food is hereunto  
affixed on 14 April 1977



Authorised by the Minister

This Certificate contains the material particulars of the authorisation under the Radioactive Substances Act 1960 for the disposal of radioactive waste of the descriptions specified in the Certificate on or from the premises specified therein.

The authorisation does not authorise the disposal of waste in contravention of any other enactment or any order, regulation or other instrument made, granted or issued under any enactment, in contravention of any rule of law or in breach of any agreement.

From: [REDACTED] HEALTH PHYSICIST (SUPPORT)  
HP BRANCH  
NUCLEAR POWER DEPARTMENT  
HM NAVAL BASE ROSYTH  
Dunfermline Fife KY11 2YA



Telephone Inverkeithing 41-2121 ext [REDACTED]

(For the attention of [REDACTED])

Scottish Development Department  
HM Industrial Pollution Inspectorate for Scotland  
21 Hill Street  
EDINBURGH  
EH2 3JY

Please address reply to Department  
Indicated below signature  
Your reference

Our reference WOPM/251/2983

Date 8 February 1983

Dear [REDACTED]

AUTHORISATION FOR THE DOCKYARD BURIAL SITE

We appear to have lost the original letter dated 15 August 1966, and amendments dated 24 November 1966 and 16 December 1968 which detail the arrangements agreed by SDD and MOD(N) for disposal of low activity solid waste at the dockyard active waste burial site.

A letter dated 5 January 1976 described the arrangements. "1000 ft<sup>3</sup> solid waste of less than 100 mCi total activity to be buried within the dockyard, the waste to be shredded and washed and bagged such that maximum activity per bag is 100  $\mu$ Ci. Burial depth to be 3 ft and disposal records, including position within the dockyard burial site to be maintained".

Can you furnish us with copies of the original agreements? Would the description in paragraph 2. cover all requirements for this type of disposal? An early reply would be appreciated.

Yours sincerely

[REDACTED]  
HEALTH PHYSICIST (SUPPORT)

FAVED

23/10/86



SCOTTISH DEVELOPMENT DEPARTMENT  
HM INDUSTRIAL POLLUTION INSPECTORATE FOR SCOTLAND

Pentland House, 47 Robb's Loan, Edinburgh EH14 1TY

Telephone [REDACTED] Extension [REDACTED]  
Ansafone [REDACTED]  
Replies to be addressed to the Chief Inspector

[REDACTED]  
Health Physicist (Support)  
H P Branch  
Nuclear Power Department  
HM Naval Base  
ROSYTH  
Dunfermline, Fife, KY11 2YA

Your reference WPT/451/ 0/83  
Our reference 14/12/5/3  
Date 29 April 1983

Dear [REDACTED]

AUTHORISATION FOR THE DOCKYARD BURIAL SITE

Thank you for your letter dated 8 February addressed to Hill Street, our old address. Please note the change of address on your records.

Please find attached all the documents you request including an extra document and map dated 26 April 1966. This document is referred to in the 15th August 1966 document.

You also ask would the description in paragraph .2 of your letter cover all the requirements for this type of disposal? The answer to your question should be yes, but if you have any doubts about a specific example, please bring it to my attention in case it is contrary to the thinking at the time the agreement was made. Agreements are made in the hope that they will always be acceptable to both parties, but later experience may require changes to such agreements. I would hasten to add, that one of my tasks for this year is to review our agreements, which is obviously now required particularly as the burial ground is full.

I trust that this answers all the questions in your letter.

Finally, I would apologise for the delay in replying which is due entirely to my mistake.

Yours sincerely

Inspector



SCOTTISH DEVELOPMENT DEPARTMENT  
HM INDUSTRIAL POLLUTION INSPECTORATE FOR SCOTLAND  
21 Hill Street Edinburgh EH2 3JY

Telephone [REDACTED]

FOR THE ATTENTION OF [REDACTED] SENIOR HEALTH PHYSICIST

Nuclear Power Department  
HM Dockyard  
ROSYTH  
Dunfermline  
Fife

Your reference

Our reference

Date

5 January 1976 /

doc 6

Dear [REDACTED]

RADIOACTIVE SUBSTANCES ACT 1960

Following discussions with [REDACTED] and [REDACTED] of your Department, it appeared that there was a need to summarise the present situation with respect to agreements made under the administrative arrangements between Ministry of Defence (Navy) and HM Industrial Pollution Inspectorate regarding the disposal of radioactive waste from Rosyth. As I see it, the situation is as follows:-

Liquid Waste

(a) Low activity liquid waste.

Not more than 30 Ci per year to be discharged from the East Jetty at a strength measured in picocuries/ml. This agreement was originally accepted by letter from SDD to MOD(N) dated 10/12/64 and modified to present total authorised disposal 29/7/68 and by implication at present specific activity of  $10^{-3}$  uCi/ml on 15/10/69.

(b) Medium activity liquid waste, including toxic materials. Not more than 100 uCi per 3 months to be disposed of over side at a ship's speed greater than 6 kts at a rate of not more than 100 mCi per nautical mile, within the underwater weapons practice range off Fife Ness.

(c) Radioactive potassium chromate.

As for medium activity liquid waste but at a solution concentration of not greater than 2000 ppm and not more than 25 tons per year.

The agreement is dated 21/4/66 and modified 22/9/66 but is not believed to have been used since 1969.

Solid Waste

(a) Low activity solid waste.

1000 ft<sup>3</sup> solid waste of less than 100 mCi total activity to be buried within the dockyard, the waste to be shredded and washed and bagged such that maximum activity per bag is 100 uCi. Burial depth to be 3 feet and disposal records, including position within the dockyard burial site to be maintained.

This agreement was accepted in a letter dated 15/8/66, modified by letters dated 24/11/66 and 16/12/68 between SDD and MOD(N).

Nuclear Power Department  
Rosyth

5 January 1976

(b) Medium activity solid waste.

300 ft<sup>3</sup> made up of scrap metal, filters, solid sludge etc to a total activity of 2 Ci per annum to be disposed of to the National Disposal Service along with 500 ft<sup>3</sup> per annum of mixed trash, total activity 1 Ci per annum.

This was agreed by SDD in a letter to MOD(N) dated 13/11/70.

(c) High activity solid waste, including resin catch tanks.

When this material is to be disposed of by sea dumping direct from Rosyth, a designated procedure worked out between DAFS, MOD(N) and UKAEA must be followed, and on this basis authorisation for such disposals is contained in a letter from SDD to MOD(N) dated 4/12/70.

However when such material is transferred to Harwell for sea dumping, approval seems to be less clearly defined and may be inferred only from minutes of meetings eg letter ex MOD dated 16/5/68 para 5 and from the original draft authorisation for medium activity waste contained in a letter from SDD to MOD dated 16/10/70. It may be that this is an oversight following the splitting-up of the UKAEA when British Nuclear Fuels Ltd took over the NDS and the operation of the Drigg site only. Perhaps you may care to comment on this point.

I understand that a number of drums for sea dumping are to be capped off in the near future and perhaps it may be appropriate to consider any points arising then.

I look forward to hearing from you in due course.

Yours sincerely

  
Inspector



## SCOTTISH DEVELOPMENT DEPARTMENT

21 Hill Street, EDINBURGH, 2

Telephones: 226-5208 Ext.

Our references:  
Your references:

RS/2/2/5/5  
K/SNO/36/66

16th December, 1966

Dear [REDACTED]

Disposal of Solid Radioactive Waste from H.M. Dockyard, Rosyth

I understand you have taken over from [REDACTED]

... I enclose a copy of a letter which our Chief Radiochemical Inspector has received from the Senior Health Physicist, Nuclear Power Department, Rosyth. The annual limit of 10 millicuries for solid radioactive waste to be buried on site at Rosyth was agreed in the exchange of correspondence between [REDACTED] Ministry of Defence and [REDACTED] Scottish Development Department in 1966. In particular [REDACTED] letters dated 26th April and 12th May 1966 refer.

As a result of the recent discussion between our Radiochemical Inspector, and the Senior Health Physicist it appears that the 10 millicurie figure was an error and that the figure should have been 100 millicuries. X

... Apart from this amendment we understand that there will be no change in the total bulk of solid radioactive waste requiring burial and that the conditions remain as given in our letter of 20th December to the local authorities concerned (see copy attached).

... As this is a material amendment we must, I think, tell the local authorities of this change and I therefore attach a draft letter which I shall send to Fife County Council and Dunfermline Town Council, subject to any comments or alterations which you may wish to suggest.

I am copying this letter and enclosure to the Nuclear Power Manager, Rosyth.

Yours faithfully,

[REDACTED]  
[REDACTED]  
Naval Home Division,  
Ministry of Defence,  
Main Building,  
Whitehall,  
London, S.W.1.

## SCOTTISH DEVELOPMENT DEPARTMENT

43 Jeffrey Street, EDINBURGH 1

Telephone: Waverley 8433, ext.

Our reference: RS/2/2/5/5  
Your reference: X/2/2/5 6/66

24th November, 1966

SOL 11)

Dear [REDACTED]

Thank you for your letter of 12th October, 1966 to [REDACTED] who has been moved to other work within the Department. I have taken over from him on this file.

We are disposed to accept your suggestion that the figure of five feet minimum for the burial of low-level solid radioactive waste at the tip within the Dockyard should be reduced to a three feet minimum. I am, however, clearing this aspect with Ministry of Housing and Local Government who are, of course, interested as they may be called upon in the future to deal with similar problems in respect of English Dockyards.

You have made no reference in your letter to [REDACTED]'s proposal that some of the low level waste might be disposed of at "dustbin level". [REDACTED] has, however, spoken to [REDACTED] about this possibility and we understand that you have been advised by [REDACTED] that it would be difficult to organise effective mixing in the Dockyard's own inactive waste dumps and of course there is no refuse disposal service provided by the local authority. In the circumstances we do not wish to pursue this question further.

I am enclosing draft letters which we propose to send to Fife County Council and Dunfermline Town Council. If you have no objection to the contents we will write as proposed once we have cleared the minimum burial level with the Ministry of Housing and Local Government.

Yours sincerely,

[REDACTED]  
Shore Division (Naval)  
Ministry of Defence,  
Old War Office Building,  
Whitehall,  
London, S.W.1.



## ENCLOSURE 4

Action Overleaf

## SCOTTISH DEVELOPMENT DEPARTMENT

13 JERICO STREET, EDINBURGH 1

Telephone: ANVCH 8133, EX. 205

15<sup>th</sup> August, 1966.

Solid.

Dear [REDACTED]

Thank you for your letter of 28th July about the proposed alternative area for sea dumping of low active liquid waste from Rosyth. There should be no difficulty about this but the matter is at present with D.A.F.C. for consideration. Meantime it would be helpful if the following point could be clarified. When we discussed what might be said to the Firth of Forth Fishermen's Association about the timing of the first discharges of waste you indicated that there would be no discharges before 1967 and that discharges might not in fact start before 1968. However, Mr. Pirse was told in passing by [REDACTED] at a recent meeting of the Rosyth Local Liaison Committee that it was expected that a discharge of potassium chromate waste would need to be made before the end of this year. Perhaps you would let me know what the position is on this and how you think I.A.F.S. should now refer to the timing of discharges in their letter to the Fishermen's Association. Also, if agreement is reached on discharges taking place at the new area proposed, I am not clear on how this should be referred to in the letter to the Association. Would you see any difficulty about a general reference to "the anti-submarine weapon practice range off the Firth of Forth" plus a reference to the actual limits? I may say that we would not think it necessary to write to the River Purification Board Fife County Council or Dunfermline about discharges to take place over an area so far out to sea as the anti-submarine weapon practice range.

Referring to [REDACTED] letter to me of 26th April about the proposed disposal of solid radioactive waste by burial on redundant land in the North West corner of the Dockyard, I am writing to let you know that in all the circumstances we are agreeable to this proposal. While we would prefer to see the dispersion of low-level radioactive waste of this type in an organised substantial tip for general refuse which is likely to last for a fair number of years we know of no local tip which meets all these requirements.

[REDACTED] has had discussions at Rosyth with [REDACTED] and others on the suitability of the proposed burial site and [REDACTED] has now been able to assure us that the outstanding question of drainage presents no problem. While reference is made in the letter of 26th April to the site not being disturbed for at least 25 years, it would appear that depending on the actual usage of the site the build-up of radioactivity might be such as to make it necessary to set aside the site for a longer period than this. We assume that this would present no difficulty and that the site will remain in the hands of a Government Department for an indefinite period ahead. Accordingly we approve the disposal by burial at the site of low level solid radioactive waste of the type described in paragraph 2 of the letter of 26th April, 1966, at a rate of up to 1000 cubic feet a year (containing some 10 millicuries of activity) on the understanding that the conditions set out in paragraph 4 of the letter will be complied with in relation to all such disposals.

[REDACTED]  
Shore (Naval),  
Ministry of Defence,  
Old War Office Building,  
Whitehall,  
London, S.W.1.

/We

15<sup>th</sup> August, 1966.

[REDACTED]

We should, however, be glad if the possibility of disposing of some of this low level waste with ordinary refuse from the Dockyard could be considered, since this would reduce the rate of build-up of activity in the burial site. Only slight active waste would of course be suitable for disposal in this way. The waste would need to be placed in containers in which the volume of refuse, whether or not consisting wholly of the radioactive waste was not less than 3 cubic feet, the total activity of waste in each container not more than 10 microcuries, and the activity of any one article in the waste not more than 1 microcurie. We understand that there is no refuse disposal service provided for the Dockyard by the local authority and the suitability of any tip for general refuse operated by the Dockyard would need to be considered, as would the rate of disposal of ordinary refuse to it. When [REDACTED] has had time to look into the question he will no doubt get in touch with [REDACTED]. Fife County Council and Dunfermline Town Council will require to be told about these arrangements for disposal of solid radioactive waste but I intend to defer doing so until the question of disposals at "duethin level" has been cleared up. I shall of course let you have a copy of the letters sent to these local authorities on this subject.

Finally we would like to place on record at this stage that we wish to be consulted in due course about any proposals to dump medium level solid radioactive waste from Rosyth and Faslane in the sea beyond the 1000 fathom line, (paragraph 10 of [REDACTED]'s letter to me of 16th October, 1964, reference NUTSP/R3/302/64 refers).

I am sending copies of this letter to [REDACTED] and [REDACTED].

Yours sincerely,

[REDACTED]



MINISTRY OF DEFENCE

OLD WAR OFFICE ~~XXXX~~ Building, Whitehall, LONDON S.W.1

Telephone: WHITEHALL ~~XXXX~~, ext. 368  
9000

Our reference: N/SNO/S6/66  
Your reference:

26 April 1966

Dear [REDACTED]

DISPOSAL OF SOLID RADIOACTIVE WASTE FROM HM DOCKYARD, ROSYTH

In connection with the refitting of nuclear powered submarines at HM Dockyard, Rosyth, it will be necessary to dispose of quantities of low-level solid radioactive waste.

2. This waste will consist mainly of contaminated polythene and PVC sheeting, and other items such as rags and swabs. The general activity of these materials will not exceed  $10^3$   $\mu$ C/cm<sup>2</sup>, the predominant isotope being Cobalt 60, which has a half-life of about  $5\frac{1}{2}$  years. There will be no fission products. It is expected that, when the Dockyard is working at full capacity, about 1000 cubic feet of waste will require disposal each year.

3. Of the methods of disposal which have been investigated, the best is considered to be to bury the waste on redundant land in the North West corner of the Dockyard, in the area hatched on the enclosed map-cutting. This area is well above the high water mark, and will not be disturbed for at least 25 years.

4. The following conditions would be placed on waste disposal in this way:-

- a. the waste would be reduced in volume by shredding.
- b. the overall contamination level would be reduced by washing or rinsing the waste where appropriate.
- c. the shredded waste would be sealed in polythene bags, each containing not more than 100  $\mu$ C activity, as determined by external monitoring.
- d. each bag would be buried as soon as ready at a depth of not less than 5 ft.
- e. Records would be kept of the location and nature of the waste disposed of.

5. I would be interested to hear your views on the acceptability of the above proposals.

Yours sincerely,

[REDACTED]

[REDACTED]  
Scottish Development Department  
43 Jeffrey Street  
Edinburgh 1

noted on  
not done  
in - meeting  
1. Rump  
2. 2nd 1966  
3. 1st 1966

N.B.  
will bury  
2 ft 11 in  
1 ft 11 in

ENCLOSURE 4

