

PRM 19/3039

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NEW FILE COVER

CONFIDENTIAL FILING

Problems associated with UK dependence
on Imported Minerals

Stockpile of Strategic Materials

In attached folder:
Report on Strategic Minerals

INDUSTRIAL POLICY

August 1979

Referred to	Date	Referred to	Date	Referred to	Date	Referred to	Date
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PREM 19/3039

CLOSED

TO BE RETAINED AS TOP ENCLOSURE

Cabinet / Cabinet Committee Documents

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The documents listed above, which were enclosed on this file, have been removed and destroyed. Such documents are the responsibility of the Cabinet Office. When released they are available in the appropriate **CAB** (CABINET OFFICE) CLASSES

Signed J. Gray

Date 3/2/2017

PREM Records Team

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10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

22 August 1990

See Note.

UK MINERAL STOCKPILE

The Prime Minister has considered the Trade and Industry Secretary's minute of 20 August and the attached paper about the UK mineral stockpile. She accepts the principal recommendation that the DTI should undertake a phased sale of the minerals in the stockpile over a 2-3 year period, leaving relatively late the more sensitive minerals, so that we can reconsider if there was any dramatic change in security of supply.

I am copying this letter to Simon Gass (Foreign and Commonwealth Office), John Gieve (H.M. Treasury), Simon Webb (Ministry of Defence), Phillip Ward (Department of the Environment), John Neilson (Department of Energy), Martyn Waring (Department of Employment) and Sonia Phippard (Cabinet Office).

Yours sincerely,

C. D. POWELL

Martin Stanley, Esq.,
Department of Trade and Industry.

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Prime Minister

PRIME MINISTER

In the light

(a) of the improved political situation in South Africa, and
(b) industry's refusal to fund or share in funding, the Mineral Stockpile

UK MINERAL STOCKPILE

The UK mineral stockpile was set up in 1982 as an insurance against disruption of the supply of certain key minerals from South and Southern Africa. Following a review in 1987 a reduction in the size and scope of the stockpile was agreed, and you asked to be kept informed of any future developments.

Agreed to its phased sell-off over

An ad hoc inter-Departmental review group of officials, chaired by the Cabinet Office, has conducted a further review of the stockpile. I attach a copy of its report. The principal recommendation is that my Department, which manages the stockpile, should undertake a phased sale of these minerals over a 2-3 year period.

2 1/3 years?

CBO

2 1/2

I commend this recommendation to you and colleagues, for the following main reasons:

Shed - on the new 7 MT this p44

- i The limited degree of dependence on supply from South Africa,
- ii The change in the political climate there - it could be even more difficult if the ANC got over
- iii In order to avoid artificial distortion of the market, disposal of the stockpile should be over a 2-3 year period. Such a phased sale could leave relatively late the more sensitive minerals, enabling us to reconsider if there was any dramatic change in security of supply.

agreed no





the department for Enterprise

- iv Industry would naturally prefer the retention of the stockpile, but is not itself prepared to make any contribution towards its cost. That reflects the judgment of industry on the commercial importance they attach to this facility.
- v Disposal of the stockpile will enable savings of around £3m per annum in the disposal period, mainly from receipts dependent on market prices. These would be particularly welcome against the background of the current PES round.

We therefore have an arrangement which has served its purpose; which can be abolished without undue risk in circumstances which enable us to reconsider if necessary; and which offers scope for useful PES savings. If you and colleagues are content, I shall proceed accordingly.

I am sending copies of this letter and its attachments to Douglas Hurd, John Major, Tom King, Chris Patten, John Wakeham, Michael Howard and Sir Robin Butler.

P L

20 August 1990

DEPARTMENT OF TRADE AND INDUSTRY

JW1AWB



CONFIDENTIALREPORT OF THE AD HOC GROUP OF OFFICIALS ON THE UK STRATEGIC MINERAL STOCKPILEA RECOMMENDATION

The Committee recommends to Ministers that HMG's Strategic Mineral Stockpile should be sold-off over a 2-3 year period.

B INTRODUCTION

2 An interdepartmental group of officials, under the Chairmanship of the Cabinet Office, has been meeting since January 1990 to review policy on HMG's Strategic Mineral Stockpile. (Its composition and terms of reference are at Annex A). Earlier reviews were carried out in 1986 and 1987. The Group's conclusions and recommendations contained in this report are fully supported by the Department of Trade and Industry in its capacity as lead Department.

C BACKGROUND

3 Because certain sectors of UK industry were heavily dependent on South and Southern Africa for the supply of key industrial minerals (primarily the steel and aerospace industries), Ministers decided in September 1982 that there should be a national stockpile of such materials as a contingency against disruptions in supply. Such a stockpile was, and still is, intended to cover short-term (ie 3-6 months') needs in peace-time and although some defence applications would be covered, it was not specifically defence-oriented. (See also Annex B). Since its establishment in 1983, there has been no occasion on which the stockpile has been called on to offset supply problems.

4 Although it was the Government's general view that industry should maintain adequate stocks of its own, it was recognised that the cost of establishing such a stockpile quickly would be a considerable burden on the industries concerned. In any case, attempts to attract private sector finance were not successful. The Treasury therefore made available £35.5m and a stockpile of various forms of cobalt, chromium, manganese and vanadium was established.

5 Since then the policy has been reviewed by Ministers on a number of occasions. In 1986, the Prime Minister asked the Cabinet Office to chair a review and in 1987 there was a further review. These both led Ministers to agree that although a stockpile should be retained the less vulnerable contents should be sold off. The Stockpile's current composition, size

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and value are at Annex C.

6 DTI is responsible for managing the stockpile (including funding) and for policy considerations. Assistance is given by a management agent and an independent adviser. Storage is contracted out to a private sector company, Forgemasters Steels Ltd. (DTI Ministers are aware and are being kept informed of the stockpile link in the context of this company's current involvement in export control investigations). An Advisory Committee on Stockpiling comprising the key consuming companies and the DTI's agents meets periodically. In addition, to the capital value of the stockpile annual external management costs total £338K - see Annex C. There remains no financial contribution from industry.

C 1990 REVIEW

7 In pursuing the objectives of the review (see Annex A), the Committee examined a number of key areas and whether the main considerations within these had changed since the 1987 review.

(a) Sensitive materials and UK stockpiling policy

(i) Criticality and supply vulnerability

8 The Committee examined a number of raw materials, both those in the existing stockpile and others, which had previously been considered (a) critical to the needs of UK industry (ie an essential material) and (b) vulnerable to disruptions in supply (ie few and potentially unstable sources) - see Annex B. This involved consultations with a range of industrial sectors about the Stockpile and its funding (see paragraph 10).

9 Annex D gives a summary criticality analysis drawing out the main points of sensitivity for each of the stockpile materials and, for comparison also gives data on two basic raw materials - chrome ore and manganese ore - not included in the stockpile. From the analysis several important points relevant to the review can be highlighted:

(i) the UK is directly reliant on South Africa only for two of the stockpiled materials - chrome (52% of supply) and manganese metal (61%);

(ii) both of these are used primarily in the manufacture of stainless steel whose uses are not wholly critical ie includes domestic consumer goods;

(iii) all other materials are sourced from elsewhere although these sources are themselves dependent to varying

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degrees on South African ores or, in the case of Zimbabwe, on South African rail links;

(iv) only two of the materials are critical to the aerospace industry and in each case quantities held in the stockpile are small and could be protected during a run-down: chrome metal (105 tonnes) and vanadium aluminium (45 tonnes); but thermic chrome (in stockpile) is produced in the UK (a major exporter) and is less vulnerable than electrolytic chrome (not in stockpile);

(v) for some of the materials, supply disruptions could be eased in the short term by substituting other accessible materials (eg low for high carbon ferrochrome) without a significant loss of performance, though at a higher cost; stocks of key ores (eg manganese and chrome ores) held by industry were also at higher levels;

(vi) it will therefore be possible to phase any sales from the stockpile so that the less critical materials (eg large stocks of high and low carbon ferrochromes) are gradually disposed of first and the more critical (chrome metal and vanadium aluminium) are retained until later.

For those materials which were examined but not in the stockpile (see Annex B), with the exception of electrolytic chrome metal (see paragraph 9(iv) above), none was considered either critical or supply vulnerable.

(ii) Industry views

10 Some forty industrial sectors were approached. The metallurgical industries and non-specialist end-users had by and large no interest in the materials in question and certainly could not identify any mineral in the stockpile as being especially critical. Only three sectors (steel castings, aerospace alloys and some defence suppliers) indicated even a moderate dependence on these materials. They remained of the view that the stockpile should continue to be maintained primarily in the national interest and was only secondarily a commercial stockpile. They acknowledged that in their own commercial interests it was normal practice to build up stocks of key materials when events dictated it. However, normal commercial stockpiles did not extend to unforeseen and extreme circumstances which industry considered to be the main function of HMG's Strategic Stockpile. Accordingly, industry was unwilling to fund the maintenance of the stockpile either in whole or in part.

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(iii) Other supply considerations

11 The MoD reported that they were unlikely to experience significant problems during any short-term disruption in supplies (even if this coincided with a period of international tension) as the armed forces would draw on equipment and spares already manufactured. Similarly, the Department of Energy reported that a stockpile to protect against short-term disruption was not of particular benefit to the nuclear power industry. Nor, as far as the Department of Environment were concerned, would there be any real problems for the construction industry who would be too far down the supply chain and to a certain degree cushioned from any effects. Given that industry generally believed it would not experience significant difficulties, the Department of Employment confirmed that the evidence did not point to the conclusion that significant redundancies would result.

(b) Security of supply: the political situation in South Africa.

12 Does the political situation in South Africa continue to pose a potential threat to supply? The last review concluded that it did but since then, and particularly over the past 12 months, the situation in South Africa has changed considerably suggesting a degree of cautious optimism. President de Klerk has taken a number of major steps designed to normalise political activity, most notably the release of Nelson Mandela, and to create a climate for negotiation. There are now direct talks between the South African Government and the African National Congress (ANC) and the main players, President de Klerk and Mr Mandela seem confident that an agreement can be reached. In present circumstances there is no pressure for further international sanctions against South Africa; existing sanctions are already crumbling.

13 South Africa will remain a high-risk scenario for the foreseeable future. Both the South African Government and the ANC are some way ahead of their constituencies. Extremism is growing at both ends of the political spectrum; an unpredictable event such as the assassination of de Klerk or Mandela could derail the process of peaceful negotiation. Nevertheless it is reasonable to conclude on current evidence that the concerns over political stability which led to the establishment of the stockpile have eased. The ANC retains a formal commitment to socialist economic policies, including nationalisation of the mines. But this is becoming rapidly more nuanced as ANC ideologies are exposed to contact with South African economic realities. Wholesale nationalisation under a future democratic government looks increasingly

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unlikely. In any case, the result of any form of state involvement in management of the mines is thought much more likely to result in an increase in price rather than in problems of supply. Developments will however need to be monitored closely.

(c) Stockpiling policies of other countries

14 All major Western industrialised countries are highly dependent to varying degrees on South Africa for supplies of strategic minerals, but their stockpiling policies differ greatly. None maintains a uniquely government-funded stockpile for purely non-military crisis purposes. The US Government funds and manages an enormous stockpile of a highly defence-oriented nature. France holds a larger Government-funded stockpile than our own, and for more uniquely defence-oriented purposes. Sweden holds a large stockpile to safeguard supplies in the event of war; the Swiss Government does not hold a stockpile, but offers fiscal incentives to try to encourage industry to maintain its own supplies; Japan operates a smaller-scale shared cost/responsibility scheme. The Federal Republic of Germany (FRG) and the Netherlands hold no government supplies of strategic minerals.

15 There has never been acceptance in the FRG that Government should have responsibility in this area. Not only does the Federal Government not accept that there is sufficient risk of disruption, but it believes that government stockpiling is inflexible and expensive. FRG companies are expected to provide for crisis and this policy, it is maintained, ensures that decisions are taken by those organisations best-placed to make the most responsible commercial decisions - the companies themselves.

D OPTIONS

16 In the light of the above considerations, the Committee examined four options for future UK stockpiling policy:

- (i) retain the stockpile as now;
- (ii) retain the stockpile but with some industry
- iii) retain a smaller, more targetted stockpile, possibly with some industry funding;
- (iv) undertake a phased sell-off of the stockpile over a period of 2-3 years.

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17 (i) Retain the stockpile as now

This seemed the least convincing of the options. Industry was generally not as reliant on many of the materials held in the stockpile as it once was (or any other materials). The problems of criticality (especially for end consumers) and supply vulnerability are limited (technical evidence supported this) and the threat to supply from instability in South Africa had eased. Industry would also build its own stocks when shortages were foreseen.

18 (ii) Retain the stockpile but with some industry funding.

It might, however, have been possible to consider retention if the stockpile were both co-managed and funded with industry. Unfortunately, discussions with industry on this point were not fruitful (see paragraph 10 above). It was their view that HMG should continue to fully fund the stockpile. They saw practical difficulties in cost-sharing but were not prepared to make any financial contribution, even if a sell-off of the stockpile were in prospect. This response from industry leads the Committee to recommend against this option.

19 (iii) Retain a smaller, more targetted stockpile, possibly with some industry funding.

Prima facie there are some chromium and vanadium materials which are both important to industry (eg in aerospace) and supply vulnerable, and might be regarded as a core list, on the basis of which this option could be considered. But in the view of Departments, key industrial interests would not suffer in the event of a short-term disruption in supplies of these materials. Furthermore the relevant sections of industry made clear that they would not be prepared to consider any cost-sharing arrangement even if the size of the stockpile were reduced. For both these reasons, the Committee concluded that this was not a realistic option.

20 (iv) Undertake a phased sell-off of the stockpile over a period of 2-3 years.

In the light of all the considerations set out above, this option appeared to the Committee as having the merit of providing a flexible response to changes which had occurred since the stockpile was established. It would also be consistent with Government policy that the private sector was best placed to take market decisions of this kind and that the continued use of public funds was generally inappropriate. A

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phased sale of the stockpile over a period of 2-3 years would also enable the following considerations to be satisfied:-

- (a) monitoring of political developments in South Africa and an ability to respond if the situation should deteriorate;
- (b) market sensitivity as this
 - (i) is the length of time it would take to dispose of the stockpile's contents without the danger of distorting or disrupting world mineral and metal markets;
 - (ii) would enable the materials to be sold when market conditions indicated that the best prices could be obtained;
 - (iii) would allow account to be taken of any significant changes in world production and supply;
- (c) materials sensitivity as some in the stockpile are less vulnerable to supply disruption than others and could, subject to (b) above, be sold off first with the more vulnerable held in reserve until later.

E CONCLUSION

21 The conditions which existed at the time of the last review in respect of the criticality of materials, supply vulnerability, the level of private stocks and the political situation in South Africa, have changed sufficiently so as to question the need to retain a national stockpile of key materials funded by the Government. In view of the fact that UK industry would also be unwilling to help fund such a stockpile and in order to retain some flexibility, the Committee recommends to Ministers that the DTI should begin to sell-off the materials contained in the UK Strategic Mineral Stockpile and to complete this over a 2-3 year period along the lines of paragraph 20 above.

JULY 1990

1990 REVIEW OF STOCKPILING POLICY

COMPOSITION OF THE AD HOC GROUP OF OFFICIALS

Under the chairmanship of the Cabinet Office, the Group comprised officials from:

- Foreign and Commonwealth Office (FCO)
- HM Treasury
- Ministry of Defence (MoD)
- Department of Trade and Industry (DTI)
- Department of Energy (DEn)
- Department of Environment (DOE)
- Department of Employment (DEmp)

TERMS OF REFERENCE

Aims of the Review

To assess whether HMG should continue to maintain a stockpile of strategic minerals; and, if so, to recommend which materials and what quantities should be held in a Government stockpile.

Objectives

It will be necessary to:

- i assess how critical the materials currently contained in the stockpile are to the needs of UK industry;
- ii estimate how far these materials might be vulnerable to serious disruption in supply, (geological, economic and political factors should be considered);
- iii assess whether UK industry is equally reliant on other raw materials which are also vulnerable to disruption in supply;

- iv estimate the possible effect on UK industry of a disruption in supplies of these materials;
- v evaluate the place of a government-maintained stockpile within current HMG policy, (including a comparison with the policies of other governments);
- vi identify where the responsibility for maintaining adequate stocks of raw materials should lie.

NOTES ON CRITICALITY AND SUPPLY VULNERABILITY

1. Criticality is the degree to which a commodity is essential to a particular process or manufacture, or to a final consumer. The technical criticality of a material may thus be assessed at any one of what may be several processing stages in its passage from raw material to finished article.
2. Supply vulnerability describes the degree to which the supply of an imported material is vulnerable to disruption, usually because sources of supply are limited.

3. Materials studied

The metals and minerals considered by the Committee comprised a first group of:

- chromium, manganese, vanadium and cobalt. The first three of these materials are currently held in various forms (see Annex C) in the stockpile. Cobalt was originally in the stockpile but has since been sold off. The supplies of these four materials are to varying degrees concentrated in southern Africa;

and a second group of:

- antimony, molybdenum, nickel, niobium, platinum group metals, tantalum, titanium and tungsten. With the exception of tungsten, all these materials were classified by the 1982 Select Committee on the European Communities in its report on strategic minerals as "less important" (but nevertheless worthy of consideration because they were supplied almost entirely by countries outside the European Community).

HMG STRATEGIC MATERIAL STOCKPILE
COMPOSITION, VALUE AND MANAGEMENT COSTS

MATERIAL	STOCKPILE LEVEL METRIC TONNES (a)	STOCKPILE VALUE (a)
FERRO VANADIUM	285.3	£ 2,053,855
HIGH CARBON FERROCHROME	3,589.5	£ 1,440,445
LOW CARBON FERROCHROME	4,088	£ 4,146,750
MANGANESE METAL	400	£ 472,000
CHROME METAL	105	£ 297,360
VANADIUM ALUMINIUM	44.9	£ 374,688
NITRIDED FERROCHROME	200	£ 374,255
AMMONIUM POLY VANADATE	126.7	£ 283,082
VANADIUM PENTOXIDE	151.3	£ 594,007
STOCKPILE TOTAL	8990.7	£10,036,442

(a) Figures as at 31/5/90 provided by DTI's Stockpile Management Agents.

In addition to the capital value of the stockpile, the cost to public funds of its management is as follows:

	Cost per annum (£k)
MANAGEMENT AGENT	83
STORAGE AGENT	209
INDEPENDENT ADVISER	11.5
TECHNICAL ADVICE	34.5
TOTAL	338

Private industry (requesting companies or otherwise) make no financial contributions to the stockpile's management.

STRATEGIC MINERALS STOCKPILE: CRITICALITY ANALYSIS

MATERIAL	IMPORTS 1989	MAIN SOURCE OF SUPPLY	SOUTH AFRICA %	ALTERNATIVE SOURCES	INDUSTRIAL USES	STOCKPILE PROVISION	PERIOD COVERED	PRIVATE STOCKS
	Metric tonnes					Metric tonnes value		
Chrome Ore	118,035	South Africa	95		Chrome chemicals (oxide) for plating.	<u>NOT HELD IN STOCKPILE</u>	-	12 months
Chrome metal	300	Japan (from South African ores) for electrolytic	-	Advances being made in ceramic materials but at present no immediate substitute	Rolls Royce - incorporated in high performance alloys for jet engines.	105 £297K Nc ELECTRO- LYTIC	3 months	4 weeks
Ferro- chrome:	(1988)							Charge 10,000
High carbon (including charge carbon)	Charge 69,000 Other 26,000	South Africa Zimbabwe via South Africa	52 (54)	Finland/Sweden Low carbon - though more expensive	Mainly British Steel. Steel and cast iron, primarily stainless steel (90% use).	3590 £1.4m	3 months	Other 2-6 weeks
Low carbon	8,000	Zimbabwe via South Africa	72 both		But only 60% of stainless steel uses are critical eg food processing and preparation and chemical plants. Non-critical household goods.	4088 £4.1m Nitride ferro 200 £374K	6 months	2-3 weeks
Manganese ore	272,115	Brazil 58% South Africa	38	Brazil or import ferro- manganese.	British Steel to make ferro- manganese.	<u>NOT HELD IN STOCKPILE</u>	-	British Steel holds several months.
Manganese metal	2616 (1988)	South Africa	61	Other European countries. But refined manganese or oxide critical to aluminium.	Alloying for stainless steel, aluminium.	400 £472K	5 months	'Consig- nment stocks' 2-3 months supply
Ferro vanadium	565 (1988)	FRG 47% Austria 34%	-	Processed largely from South Africa vanadium ore but other sources include China and USSR.	Construction industry. High strength low- alloy steels. Carbon steels.	285 £2m	6 months	7 weeks
Vanadium aluminium	N/K	FRG 100%	-		Critical additive to titanium - for jet engines and air frames.	45 £375k	6 months	Not known.
Vanadium pentoxide	181	Austria 58%			Intermediate for vanadium processing	151 £594K		
Ammonium poly vandate		South Africa	38			127 £283K	6 months	Not known



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cc DTI CO
LPSO Mallaby
MOD DTM
WPO DTN
HMT
FCO JOE
FILE
WPO

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

29 July 1987

Dear Peter.

STRATEGIC MINERAL STOCKPILE

The Prime Minister has seen the Chancellor of the Duchy's minute of 28 July about the disposal of excess stocks of vanadium in the strategic mineral stockpile. She agrees with the action proposed.

I am sending copies of this letter to the Private Secretaries to the members of OD, to the Private Secretaries to the Secretaries of State for Energy, Environment and Employment, and to the Private Secretary to Sir Robert Armstrong.

Yours sincerely,

CHARLES POWELL

Peter Smith, Esq.,
Office of the Chancellor of the Duchy of Lancaster.

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dg

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MR POWELL

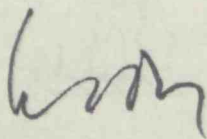
c Mr Woolley

Strategic Mineral Stockpile

IN PM'S BOX?

The suggestion in the Chancellor of the Duchy of Lancaster's minute of 28 July to the Prime Minister that excess stocks of vanadium should be disposed of is fully in line with the last report by officials (paragraph 1.4 of the paper attached to my minute of 18 May to the then Trade and Industry Secretary). It is also in line with your letter of 8 July to Peter Smith, conveying the Prime Minister's agreement to other disposals from the stockpile this year.

2. I attach a draft reply.



C L G Mallaby

29 July 1987

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56

Draft letter from Charles Powell to

Peter Smith Esq
Office of the Chancellor of the Duchy of Lancaster

Strategic Mineral Stockpile

The Prime Minister has seen the Chancellor of the Duchy's minute of 28 July about the disposal of excess stocks of vanadium in the strategic mineral stockpile. She agrees with the action proposed.

2. I am sending copies of this letter to the Private Secretaries to the members of OD, to the Private Secretaries to the Secretaries of State for Energy, Environment and Employment, and to the Private Secretary to Sir Robert Armstrong.

Ch

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CCPC
(2)

Prime Minister

CDD
28/7

TO:

PRIME MINISTER

FROM:

KENNETH CLARKE

28 July 1987

STRATEGIC MINERAL STOCKPILE

at trap

1 You asked to be kept informed of plans for the disposal of the more vulnerable materials in the strategic mineral stockpile.

2 The report of the Group of Officials circulated in May proposed the disposal of excess stocks of vanadium above the recommended target. This was subject to a final assessment of the effect on vanadium supplies of any fall in South African steel production following the imposition of EC sanctions, and any other relevant developments.

3 We are satisfied having consulted the major UK industrial users that any knock-on effects from the EC ban imposed in September 1986 would have become evident by now.

KC3AAL

1



Furthermore, the prevailing view is that the EC ban has in practice had no discernible effect on vanadium supplies which remain freely available. We have no reason to expect the position to change in the foreseeable future.

4 In the circumstances I intend to authorise officials to implement the agreed recommendation to dispose of stocks of vanadium in excess of the 6 months' target.

5 I am copying this minute to members of OD, Secretaries of State for Energy, the Environment and Employment, and to Sir Robert Armstrong.

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K C

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10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

8 July 1987

See Peter

STRATEGIC MINERAL STOCKPILE

The Prime Minister has seen the Chancellor of the Duchy of Lancaster's minute of 7 July seeking authority to proceed with disposals from the Strategic Mineral Stockpile. The Prime Minister is content for these disposals to be made on the basis previously agreed. She would like to be kept regularly in touch with plans for any subsequent disposals.

I am copying this letter to the Private Secretaries to members of OD, the Private Secretaries to the Secretaries of State for Energy, the Environment and Employment and the Private Secretary to Sir Robert Armstrong.

you search
Chris [unclear]

(C. D. POWELL)

Peter Smith, Esq.,
Office of the Chancellor of the Duchy of
Lancaster



TO:

PRIME MINISTER

FROM:

KENNETH CLARKE

7 July 1987

STRATEGIC MINERAL STOCKPILE

1 I have seen the report of the Group of officials circulated by Mr Mallaby (Cabinet Office) on 18 May, and the ensuing correspondence.

2 There was general agreement to the proposals in the report for selective partial disposals in 1987/88 of stocks of some of the "more vulnerable" materials. These disposals are based on significant increases in the stocks held by industry and are consistent with your views recorded in your Private Secretary's letter of 20 October 1986. Following on from your Private Secretary's letter of 2 June, I now seek your agreement for officials to proceed with these disposals and confirm that my Department will be following up other stockpile matters in the manner outlined in the report.

Prime Minister

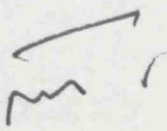
Can agreed last year letter sales from stockpile should be undertaken only so far as industry meanwhile increased its stock of vulnerable raw materials.

This minute now seeks your agreement to disposal of excess stocks where your intention is met. Yes or Agree? can 7/7



3 Looking beyond 1987/88 we see no reason to expect the South African situation or industry's stocks to improve rapidly. A further review later this year in connection with the current PES round, as proposed by Nigel Lawson, seems difficult to justify on present indications, but I would have no objection to such a review if there were any signs of significant change in the situation. Any further review would need to be undertaken on an inter-departmental basis, without necessarily reconvening the Ad Hoc Group.

4 I am copying this minute to members of OD, the Secretaries of State for Energy, the Environment and Employment, and to Sir Robert Armstrong and Mr Mallaby.



KENNETH CLARKE

Invd POL

STRATEGIC MINERALS

8/79

CCP



MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1
Telephone 01-930 7022

MO 6/1L

3rd June 1987

N Bon

See Michael,

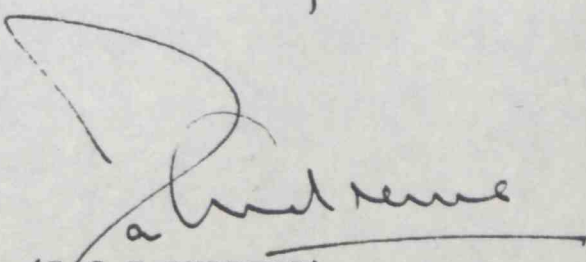
STRATEGIC MINERALS STOCKPILE

file with PAB.3/6

I believe that the Defence Secretary would be content to endorse the recommendations of the report forwarded to your Secretary of State by Mr Mallaby on 18th May. He would wish to be consulted over proposals to dispose of any further stocks of strategic minerals.

I am sending copies of this letter to the Private Secretaries to other members of OD, Geoff Dart (Department of Energy), Robin Young (Department of the Environment) John Turner (Department of Employment), and to Mr Mallaby and Trevor Woolley in the Cabinet Office.

Y minef


(I/C F ANDREWS)
Private Secretary

Michael Gilbertson Esq
Department of Trade and Industry





DEPARTMENT OF TRADE AND INDUSTRY

1-19 VICTORIA STREET

LONDON SW1H 0ET

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GTN 215)

(Switchboard) 01-215 7877

Secretary of State for Trade and Industry

PS/

3 June 1987

Geoffrey Dart, Esq
Private Secretary to the
Secretary of State for Energy
Department of Energy
Thames House South
Millbank
LONDON
SW1P 4QJ

NBPN.

Dear Geoff

STRATEGIC MINERAL STOCKPILE

My Secretary of State has asked me to write to you about Mr Walker's letter of 20 May concerning the report of the review by the Ad Hoc Group of officials on the future of the strategic stockpile forwarded under cover of Mr Mallaby's minute of 18 May.

You will have seen a copy of my letter of 28 May to David Norgrove endorsing the report's recommendations and seeking urgent agreement to their implementation. My Secretary of State notes that in general Mr Walker is content with the report's recommendations.

My Secretary of State also notes the importance which Mr Walker attaches this Department completing the work that it initiated last year on the recommendation of the Ad Hoc Group on formulating policy on the allocation of stockpile materials in the event of a disruption of supply. The work is being carried forward urgently and encompasses detailed consideration on the possible measures that could be required, and on the legal basis for implementing such measures including the Supply Powers Act 1975. It is intended that this work will cover options such as possible restraints on the export of strategic minerals, and controls on their

JF3BCE



distribution within the United Kingdom. He expects to report the outcome of these considerations to colleagues during 1987/88.

I am copying this letter to the Private Secretaries to the members of OD, Nicholas Ridley, David Young, Sir Robert Armstrong and to Mr Mallaby.

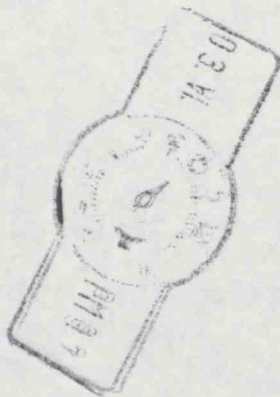
Yours

Paul Steeples

PAUL STEEPLES
Private Secretary

JF3BCE

100 POC - Strategic
Minerals. 8/79



CONFIDENTIAL



10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

2 June 1987

Dear Paul

STRATEGIC MINERAL STOCKPILE

The Prime Minister has seen your letter of 28 May to David Norgrove, and Mr. Mallaby's submission of 18 May on the subject of the strategic mineral stockpile.

She has commented that she would prefer to wait until after the election before officials are authorised to put in hand the disposals envisaged in the report.

I am copying this letter to the Private Secretaries to members of OD, Geoff Dart (Department of Energy), Robin Young (Department of the Environment), John Turner (Department of Employment), Trevor Woolley (Cabinet Office) and Mr. Mallaby.

Love

Andy

P A BEARPARK

Paul Steeples, Esq.,
Department of Trade and Industry

26

CCB4



nbpm

Treasury Chambers, Parliament Street, SW1P 3AG
01-270 3000

29 May 1987

The Rt. Hon. Paul Channon MP
Secretary of State for Trade and Industry

Dear Secretary of State

I have seen a copy of Mr Mallaby's minute to you of 18 May covering the report of the further review of the strategic minerals stockpile which has been carried out by the Ad Hoc Group.

I agree that we should press ahead with the disposals proposed in the report, including the £8 million of less vulnerable materials originally planned for disposal in 1986-87. As you know planned disposals intended to raise £20 million in 1986-87 were not achieved, partly because of decisions following the first report of the Ad Hoc Group and partly because of market conditions. In all, receipts of less than £4 million were achieved and the resulting shortfall was made good as part of your net claim on the Reserve. In approving the Winter Supplementaries John MacGregor made it clear (in his letter of 3 November 1986) that when these minerals were eventually sold the proceeds should return to the Reserve and not be available to fund increases on your programme. Certainly any proceeds from disposals over and above the £13 million included in your Estimates for 1987-88 must, therefore, return to the Reserve.

As I made clear in my minute of 15 October 1986 to the Prime Minister, I am sceptical about the arguments for retaining the stockpile. The people who will be affected by any disruption of supplies of strategic minerals are the users, and since the stockpile is held for industrial rather than defence purposes it is for industry to decide on the right level of stocks and to bear the cost accordingly. It is therefore important to keep the question of future disposals under regular review and I suggest therefore that the Inter-departmental Group be asked to report again in time for the 1988-89 Estimate discussions.

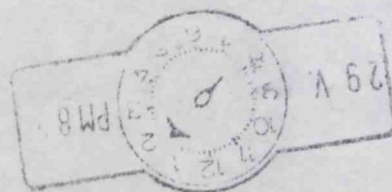
I am copying this letter to members of OD, Peter Walker, Nicholas Ridley and David Young, and to Sir Robert Armstrong.

Yours sincerely

pp NIGEL LAWSON

(approved by the Chancellor
and signed in his absence)

Ind. Pol: Strategic Minerals stockpile August 1979





Secretary of State for Trade and Industry

PS/

DEPARTMENT OF TRADE AND INDUSTRY

1-19 VICTORIA STREET

LONDON SW1H 0ET

Telephone (Direct dialling) 01-215 5422

GTN 215)

(Switchboard) 01-215 7877

CONFIDENTIAL

28 May 1987

David Norgrove Esq
Private Secretary to the
Prime Minister
10 Downing Street
LONDON
SW1A 2AA

Dear David

*I would prefer
to wait until
after 11th June not
to proceed in advance of the election?*

Prime Minister

Content for the disposals

at 11/6

STRATEGIC MINERAL STOCKPILE

My Secretary of State has seen the recommendations of the Ad Hoc Group in the report on the stockpile forwarded under cover of Mr Mallaby's minute of 19 May.

He is content with the proposals for selective partial disposals from the stocks of the more vulnerable materials. The proposals are in keeping with the views expressed by the Prime Minister last October. He is also content with the contingency arrangements identified in the event of sales not yielding the receipts provided for in the Estimates.

He has considered whether, in view of the dissolution of Parliament, it would be right to authorize the proposed disposals. There are operational implications for DTI of leaving the matter over, as explained in paragraph 3 of Mr Mallaby's minute. It also seems unlikely that a future Administration, looking at both the strategic issues and financial implications, would reach different conclusions. He has concluded that officials should be authorized to put in hand the disposals envisaged in the report for 1987/88 and to follow up stockpile matters in the manner outlined in the report. Any subsequent disposals which may become appropriate should be agreed inter-departmentally outside the Ad Hoc Group.

In view of the continuing political risks affecting South Africa and the modest level (3-6 months' supply) at which the stocks of the more vulnerable materials are being maintained, it is

JF3BCD



unnecessary to plan for any further review of the size and composition of the stockpile.

This letter seeks agreement to proceed on this basis.

I am copying this letter to the Private Secretaries to members of OD, the Secretaries of State for Energy, Environment and Employment and Sir Robert Armstrong and to Mr Mallaby.

Yours
Paul

PAUL STEEPLES
Private Secretary

JF3BCD



IND POL' stockpile strategic minerals
Aug '79

CONFIDENTIAL



SECRETARY OF STATE FOR ENERGY

THAMES HOUSE SOUTH
MILLBANK LONDON SW1P 4QJ

01 211 6402

1. CDP

2. pa.

The Rt Hon Paul Channon
Secretary of State for Trade & Industry
1 Victoria Street
LONDON
SW1H 0ET

20 May 1987

De Gaul

STRATEGIC MINERALS STOCKPILE

I am writing in response to Mr Mallaby's minute to you of 18 May covering a report by the Ad Hoc Group of officials.

As you know, my principal concern is with chromium metal, which has important applications in the nuclear power industry. I therefore welcome the statement in paragraph 6.2 of the report that, in an emergency, the life of industrial stocks of this material to meet this and other UK strategic requirements could be extended over several years. I understand that this could be brought about by invoking the powers of direction available to you under the Supply Powers Act 1975.

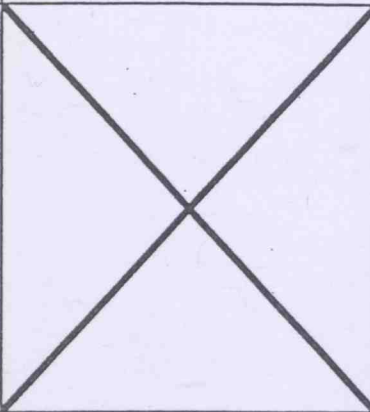
On this basis, I would not wish to press for the option of increasing the Government stock of chromium metal by one sixth to compensate for the (3 months') reduction in industrial stocks since last year. I am content with the arguments in the report for the further disposals of other materials it proposes, and welcome your Department's aim to complete in 1987-88 work on stock allocation policy in an emergency.

I am copying this letter to members of OD, to Nicholas Ridley, David Young, Sir Robert Armstrong and to Mr Mallaby.

Y *De Gaul*

PETER WALKER

CONFIDENTIAL

DEPARTMENT/SERIES <i>PRM 19</i> PIECE/ITEM <i>3039</i> (one piece/item number)	Date and sign
Extract details: <i>Mallaby to SoS for Trade & Industry dated 18 May 1987 with attachment</i>	
CLOSED UNDER FOI EXEMPTION	
RETAINED UNDER SECTION 3(4) OF THE PUBLIC RECORDS ACT 1958	
TEMPORARILY RETAINED	<i>3/2/2017</i> <i>S. Gray</i>
MISSING AT TRANSFER	
NUMBER NOT USED	
MISSING (TNA USE ONLY)	
DOCUMENT PUT IN PLACE (TNA USE ONLY)	

Instructions for completion of Dummy Card

Use black or blue pen to complete form.

Use the card for one piece or for each extract removed from a different place within a piece.

Enter the department and series,
eg. HO 405, J 82.

Enter the piece and item references, .
eg. 28, 1079, 84/1, 107/3

Enter extract details if it is an extract rather than a whole piece.

This should be an indication of what the extract is,

eg. Folio 28, Indictment 840079, E107, Letter dated 22/11/1995.

Do not enter details of why the extract is sensitive.

If closed under the FOI Act, enter the FOI exemption numbers applying to the closure, eg. 27(1), 40(2).

Sign and date next to the reason why the record is not available to the public ie. Closed under FOI exemption; Retained under section 3(4) of the Public Records Act 1958; Temporarily retained; Missing at transfer or Number not used.



DEPARTMENT/SERIES <i>PREM 19</i>	Date and sign
PIECE/ITEM <i>3039</i> (one piece/item number)	
Extract details: <i>Culshaw to Powell dated 24 October 1986</i>	
CLOSED UNDER FOI EXEMPTION	
RETAINED UNDER SECTION 3(4) OF THE PUBLIC RECORDS ACT 1958	
TEMPORARILY RETAINED	<i>3/2/2017</i> <i>G. Gray</i>
MISSING AT TRANSFER	
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cc JTM WPSO NEO
JDE MOD
JIN LFO
CO HMT
CDE FLO

DA
CDE

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

20 October 1986

Dear Tim,

STRATEGIC MINERALS STOCKPILE

The Prime Minister has now seen the comments of colleagues on the report of the ad hoc group of officials set up to consider the future size and composition of the strategic mineral stockpile. She has commented that the further review at the end of the current financial year should be undertaken by the same ad hoc group of officials under Cabinet Office chairmanship; that sales from the stockpile in 1987/88 should be undertaken only insofar as industry has meanwhile increased its stocks of each of the more vulnerable minerals; and that any sales from the stockpile in that year and thereafter should be subject to agreement by Ministers collectively in consultation with her. The Prime Minister continues to take the view that we must retain stocks of vulnerable minerals.

I am sending copies of this letter to the Private Secretaries to members of OD, the Secretaries of State for Energy, the Environment and Employment and to Sir Robert Armstrong.

Yours sincerely,

(C.D. POWELL)

Timothy Walker, Esq.,
Department of Trade and Industry.

dg

CONFIDENTIAL

CJPC



MINISTRY OF DEFENCE

MAIN BUILDING WHITEHALL LONDON SW1

Telephone 01-930 7022

MO 6/1L

17th October 1986

CJPC 20/11.

Ben Chubb,

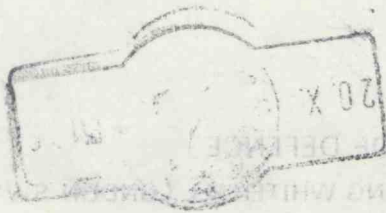
STRATEGIC MINERALS STOCKPILE

I wrote to Mr Mallaby in the Cabinet Office on 24th September recording my Department's general contentment with the conclusions of the ad hoc Group's report on the strategic minerals stockpile. We have since received copies of the Trade and Industry Secretary's minute to the Prime Minister of 25th September on the subject, your reply of 26th September, and the Chancellor of the Exchequer's minute of 15th October.

The Defence Secretary agrees that a further review of the position by April 1987 would be useful, and it is his intention that officials of this Department should be involved. But the Trade and Industry Secretary's minute also suggests that colleagues or the Reserve should bear the cost of any stockpile retained after the 1987 review. If the review does conclude that industry's stocks should still be supplemented by the retention of Government holdings, the Defence Secretary would not expect the Department of Trade and Industry to ask other Departments to meet the budgetary consequences. Indeed, it was because of the implications for industry as a whole that custody of the stockpile, and specific Treasury funding to set it up, was originally vested in that Department as the sponsor for industry; and he sees no basis for changing this position.

I am sending copies of this letter to the Private Secretaries of members of OD, of the Secretaries of State for Energy, Environment and Employment, and of Sir Robert Armstrong.

Jm
San Ban(D C J BALL)
Private SecretaryCharles Powell Esq
No 10 Downing Street



Telephone 01-800-2025



②

PRIME MINISTER

STRATEGIC MINERALS STOCKPILE

You earlier saw a note by officials about the future size and composition of the strategic minerals stockpile. You agreed that a stockpile of 3-6 months supply of the most vulnerable minerals should be retained and the position reviewed next year.

Your colleagues have in general accepted the recommendations by officials and the proposal that the stockpile be reviewed again by April 1987, in the light of developments in South Africa and the level of industries' own stocks of minerals.

However, it is clear that the Trade and Industry Secretary is counting on being able to sell from the stockpile in 1987/88 enough minerals to bring in £13 million for his Department's budget on which he is relying. It is also clear that he hopes subsequently to dispose of the stockpile altogether. The Chancellor is also sceptical about the arguments for retaining a stockpile. He is also concerned to get on record that he does not agree that failure by the DTI to realise the expected £13 million from sales from the stockpile would justify a call on the reserve. This of course increases the pressure on the DTI to sell.

You have expressed a firm view that we should maintain at least a 3-6 month stockpile of the most vulnerable raw materials, and I imagine you will not want the issue of disposal to be pre-judged. If you agree I would propose to minute your view that the further review at the end of the current financial year should be undertaken by the same ad hoc group of officials under Cabinet Office Chairmanship rather than by the DTI unilaterally; that sales from the stockpile in 1987/88 should be increased only so far as industry has meanwhile increased its stocks of each of the more vulnerable

minerals; and that sales from the stockpile in that year and thereafter should be subject to agreement by Ministers collectively and in consultation with you.

Agree?

C.D.T

CHARLES POWELL

17 October 1986

EL3BLN

Yes - we must retain

stocks of vulnerable materials
not



Treasury Chambers, Parliament Street, SW1P 3AG
01-233 3000

PRIME MINISTER

STRATEGIC MINERALS STOCKPILE

I have seen a copy of Mr Mallaby's minute of 18 September covering the report of the Ad Hoc Cabinet Office Group which has been considering the need to retain a stockpile of strategic minerals. I have also seen a copy of Paul Channon's minute of 25 September.

I am sceptical about the arguments of substance for retaining the stockpile. As the paper points out, the South African Government has a stated policy of maintaining free trade in minerals. And, though strategic minerals are a small element in South Africa's total exports, an export ban would damage its commercial reputation and, equally important, strengthen the hand of those countries pressing for comprehensive trade sanctions. I therefore agree with Paul that the position should be reviewed again in April and share his view that this is likely to enable further sales from the stockpile to be made to cover the £13m receipts assumed within his budget for 1987-88.

John MacGregor has already discussed this with Paul during the public expenditure bilaterals and has pressed him hard on the realism of achieving these receipts. Paul's judgement is that this will be possible, and I would not wish to dispute that view. But John has also made it clear that in the event of these savings not being available he would not be prepared to accept the shortfall as a call on the Reserve. The stockpile was acquired largely with funds provided from the Reserve in 1982-83 and the decision to dispose of it reflected changes in priorities within the Trade and Industry portfolio which were



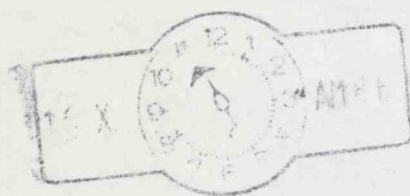
put into effect without consulting other departments. The Reserve cannot be expected to pay for this twice. Any loss of receipts resulting from the decision not to dispose of stocks must, therefore, be covered by alternative savings from within the Trade and Industry programme.

I am sending copies of this minute to Members of OD, the Secretaries of State for Energy, Environment and Employment, and to Sir Robert Armstrong.

N.L.

15 October 1986

IND. POL: Strategic materials: Aug. 1979



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See

CONFIDENTIAL

B.07532

MR POWELL

c Mr Stark

STRATEGIC MINERALS STOCKPILE

In his minute of 25 September, commenting on the report of the Ad Hoc Group of Officials on the strategic minerals stockpile, the Secretary of State for Trade and Industry has accepted the recommendations of the Ad Hoc Group in respect of the current financial year. But he has proposed that the the subject be reviewed again by April 1987 in the light of developments in South Africa and the level, which he hopes will rise considerably meanwhile, of industry's own stocks of these minerals. He is maintaining in the meantime his plan for selling in 1987/88 minerals worth £13 million from the stockpile.

2. The Energy Secretary in his minute of 29 September has accepted the report by officials. The Defence Secretary's Private Secretary has also accepted it (Mr Ball's letter of 24 September) but I understand that the Defence Secretary now plans to comment himself on the minute by the Secretary of State for Trade and Industry. The Chancellor of the Exchequer is being advised to comment that the Contingency Reserve should not be used to help pay for the stockpile. The Foreign and Commonwealth Office do not plan to intervene in the correspondence and I am not aware that any other Departments plan to do so.

3. The intention of officials in the Department of Trade and Industry is that the further review of the stockpile early next year should be conducted by the same Ad Hoc Group

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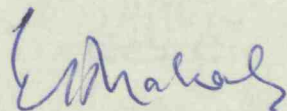
ensure that the DTI will not act unilaterally, as it has sometimes done on this subject in the past. If industry does build up its stockpile considerably in the coming months, and if the situation in South Africa does not deteriorate further, it might be possible to sell from the stockpile in 1987/88 enough minerals to bring in the £13m. on which the Trade and Industry Secretary is relying. His main ground for optimism is that British Steel have told him that they will be increasing their stocks of several of the critical minerals. But if things got worse in South Africa, or if any build up of industry's stocks was not as great as Mr Channon hopes or was not spread across all the more vulnerable minerals, sales from the Government stockpile sufficient to bring in £13m. might not be acceptable to other Departments in 1987/88. Sales of £13m. worth of minerals in those circumstances might not accord with the Prime Minister's view, recorded in your letter of 28 July, that we should certainly maintain at least a 3-6 month stockpile of the more vulnerable materials. There would then be an argument between Departments about which of them should finance the gap in the DTI budget between the receipts from the sales that could be agreed and the £13m. for which Mr Channon hopes. It seems sensible to leave discussion of this contentious question until the size of any such gap can be seen.

4. Paragraph 5 of the Trade and Industry Secretary's minute implies that he has in mind that no stockpile of strategic minerals might be needed after 1987/88, and that he could accordingly sell off the stocks worth upwards of £10m. that would then remain. DTI officials have confirmed

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to me that this is in their Secretary of State's mind. Such a move would go against the current practice of other Western industrialised countries. It would require that industry should have built up its stocks to at least 3-6 months for each of the more vulnerable minerals and that the Government could rely on those stocks being retained on a lasting basis.

5. I recommend that the Prime Minister should comment, when the letters from the Chancellor of the Exchequer and the Defence Secretary are to hand, that the further review at the end of the current financial year should be undertaken by the same Ad Hoc Group of Officials; that sales from the stockpile in 1987/88 should be undertaken only insofar as industry has meanwhile increased its stocks of each of the more vulnerable minerals; and that sales from the stockpile in that year and thereafter should be subject to agreement by the Ministers concerned.



C L G Mallaby

30 September 1986

IND POE

STRATEGIC

STOCK PRICE

8/79



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File

SRW



10 DOWNING STREET

LONDON SW1A 2AA

cc Lord Chancellor's office
FCO
HMT
Lord President's office
MOD
Lord Privy Seal
CBL

From the Private Secretary

26 September 1986

Dear Tim,

STRATEGIC MINERAL STOCKPILE

The Prime Minister has seen the Trade and Industry Secretary's minute of 25 September about the report of the Ad Hoc Group of officials to consider the future size and composition of the strategic mineral stockpile. She is content with the conclusions of that report and notes that the financial implications will be discussed with the Chief Secretary.

I am copying this letter to the Private Secretaries to members of OD, to the Secretaries of State for Energy, Environment and Employment, and to Sir Robert Armstrong.

Yours sincerely,

(C. D. POWELL)

Timothy Walker, Esq.
Department of Trade and Industry.

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PRIME MINISTER

STRATEGIC MINERAL STOCKPILE

CONFIDENTIAL

I have received a copy of the report of the Ad Hoc Group of officials set up by Sir Robert Armstrong at your request to consider the future size and composition of the strategic mineral stockpile.

2 I am in broad agreement with their overall assessment of the present position which, as Mr Mallaby points out in his covering minute of 18 September, is broadly consistent with the views in my minute to you of 21 July. The financial implications of selling this year the less vulnerable materials and retaining the more vulnerable, as recommended in the Group's report, is a shortfall of £9m in expected receipts by my Department in 1986/87, and I would need the Chief Secretary's agreement to a Supplementary Estimate to deal with this shortfall.

3 Sale of the less vulnerable materials will leave a stockpile valued at about £23 million on present prices. As you know, I am actively encouraging industry to build up its own stocks of these strategic materials and to develop alternative sources of supply to South Africa. The positive responses I have had from a number

①
Prime Minister
This is the outcome of
the review of the Strategic
Mineral Stockpile which
you ordered.
I attach the summary
of the officials' report,
the Ministry of Defence
are content.
Agree to
proceed
as suggested
in the report?
And to the
further review

in
1987?
CDD
25/9

Yes
no



CONFIDENTIAL

of industrialists means that a significant increase in industry's own stocks is likely to take place in the coming months. Such an increase will reduce the need for a Government stockpile.

4 I propose therefore that there should be a further review of the position by April 1987, to take into account developments in South Africa as well as the extent to which industry stocks of vulnerable materials have increased. I expect the outcome of such a further review will enable further sales from the Government stockpile to be made, and hence in discussions with the Chief Secretary during the current PES round I will continue to budget for receipts from stockpile sales of £13 million in 1987/88.

5 If colleagues then attach a high priority to retention of the stockpile then it should either be for them to put up the necessary funds or I should be allowed a call on the Reserve.

6 I agree with the other recommendations in the report on the need for continuing discussion with industry and the formulation of a contingency policy to govern the allocation of stockpile materials in an emergency.



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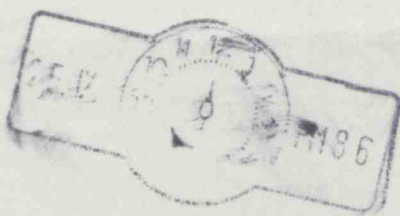
7 I am copying this minute to members of OD, the Secretaries of State for Energy, Environment and Employment, and to Sir Robert Armstrong.

Pc

PAUL CHANNON

25 September 1986

Department of Trade & Industry





MINISTRY OF DEFENCE

MAIN BUILDING WHITEHALL LONDON SW1

Telephone 01-930 7022

MO 6/1L

24th September 1986

BF // Await other
reaction
or.

See Mallaby,

STRATEGIC MINERALS STOCKPILE

Thank you for the copy of the report from the ad hoc Group on the size and type of materials that should be included in the Government's stockpile of strategic minerals. I am happy to record my Department's general endorsement of the Group's recommendations.

As the Group noted, particular attention will need to be paid to the manner in which any disposals are presented to industry, particularly of chemical chrome, for which we have the heaviest dependency on South Africa. Since any disposal can be countenanced only by virtue of the large stock now held by the private sector, we regard it as essential, both in this particular case and in general, that the Government should be able to react to any significant decrease in industry's holdings of strategic materials; as the Report notes, this means that there could be circumstances in which an increase in the Government stockpile should be made.

We also endorse the caution expressed by the Report on the disposal of vanadium and cobalt. Officials of my Department would wish to be kept informed of developments in the case of vanadium, and to receive confirmation of the situation for cobalt, before giving our final approval of the sales proposed.

I note that there is the need for some fine tuning of the information set out in the Tables at the rear of the Report; I understand that officials in this Department and in the Department of Trade and Industry have been in touch to set this in hand.

I am sending copies of this minute to the Private Secretaries of members of OD, of the Secretaries of State for Energy, the Environment and of Sir Robert Armstrong.

John's secretary
David Ball

(D C J BALL)

Private Secretary

C L G Mallaby Esq CMG
Cabinet Office

IND POL Strategic Materials Aug 79



CONFIDENTIAL

B.07521

SECRETARY OF STATE FOR TRADE AND INDUSTRY

Strategic Minerals Stockpile

During its discussion of policy towards South Africa on 24 June (6th Meeting Minutes) the Defence and Oversea Policy Committee (OD) briefly considered the strategic minerals stockpile. Subsequent correspondence led to the establishment of an ad hoc group of officials, chaired by the Cabinet Office and with representation from your Department, the Foreign and Commonwealth Office, the Treasury, the Ministry of Defence and the Departments of Energy, the Environment and Employment, to consider the size of the stockpile and which materials should be included in it. *attached*

2. I enclose the Group's report. The summary and conclusions are on the first three pages. The recommendations are broadly in line with the views in your minute to the Prime Minister of 21 July, although there are adjustments to the suggested size of the Government's stockpile of certain of the more vulnerable materials. I suggest that in the absence of comments by 25 September, the recommendations in the Report should be taken as agreed. Otherwise a meeting of Ministers, probably in OD, can be arranged. I understand that Treasury officials are in touch with officials from your Department regarding the budgetary implications, which are referred to in paragraph 1.8 of the Report. *at that*

3. I am sending copies of this minute and the Report to the Private Secretaries of members of OD, of the Secretaries of State for Energy, the Environment and Employment and of the Secretary of the Cabinet.

C L G Mallaby

C L G Mallaby

CABINET OFFICE

18 September 1986

CONFIDENTIAL

REPORT OF THE AD HOC GROUP OF OFFICIALS ON THE STRATEGIC MINERALS STOCKPILE

SUMMARY AND CONCLUSIONS

1.1 The Ad Hoc Group was set up to give collective consideration to the size of the Government's stockpile of strategic minerals and the materials which should be included. The Group's conclusions are as follows.

1.2 Stocks of the more vulnerable materials should be maintained. Stocks of the less vulnerable materials need no longer be held. There is no case for adding other minerals to the stockpile.

1.3 In terms of current rates of consumption, the stocks of the more vulnerable materials should be:

i.	Chemical Chrome/chrome metal	3 months (hitherto 6 months)
ii.	Charge Chrome	4.5 months (as before)
iii.	HC Ferro Chrome	3.75 months (" ")
iv.	LC Ferro Chrome	6 months (" ")
v.	Manganese Metal	5 months (hitherto 3 months)
vi.	Ferro Vanadium (including vanadium pentoxide equivalent)	6 months (hitherto 10 months)
vii.	Vanadium Aluminium	6 months (hitherto 8-9 months)

This means <u>selling</u> - 3 months' stocks of chemical chrome	£ 1.0m	
excess stocks of vanadium	£ 1.2m	) See next
the less vulnerable materials	£10.5m	) page
<u>buying</u> - an additional 2 months' stocks of manganese metal	£ 0.5m	

1.4 The considerations underlying the above proposals included these:

a. Chemical chrome is a vital material. The United Kingdom obtains all its supplies from South Africa. The only other significant source is the Soviet Union. But industry has a stockpile of 18 months' supply and there is no reason to expect this to diminish. On balance, therefore, reduction of the present Government stockpile from 6 months' to 3 months' supply is recommended.

b. The British Steel Corporation has responded positively to the Government's suggestion that it should try to increase its stocks of charge chrome from within its current budget. We therefore recommend no increase in the Government's stocks.

c. The United Kingdom obtains over 50 per cent of its supplies of vanadium from South Africa. The People's Republic of China is the only alternative source at present. Limited substitution and recycling are feasible. Since South African vanadium is a by-product of steel production, a fall in the latter as a result of the EC ban on imports of South African steel could affect vanadium supplies. While a Government stockpile of 6 months' supply should be adequate on the basis of the general considerations discussed in this paper, the sale of the vanadium we presently hold in excess of this amount should wait until the effects on vanadium supplies of sanctions against South African steel can be seen.

d. The disposal of the 3 months' stock of cobalt (a less vulnerable mineral) currently held in the government stockpile should be subject to confirmation that there has been no change in the position of excess supply in the market.

1.5 The DTI should continue to ensure that it is informed of any reductions in the stocks held by industry. If there were any significant reductions, the question whether corresponding increases in government holdings are necessary should be considered.

1.6 The DTI should also continue to urge industry to increase the level of its stocks, by following up the consultations between Ministers and the Chairmen of the main user companies in July. In discussions with industry the reasons for the Government disposing of the less vulnerable materials will need to be carefully presented, so as not to appear to conflict with exhortations to industry to increase its own stocks of the more vulnerable materials.

1.7 Further consideration should be given by the DTI to policy on allocating stockpile materials to users in an emergency, so as to strike a balance between assisting industry to overcome short term problems and maintaining market incentives to develop alternative sources of supply and substitution.

FINANCIAL IMPLICATOINS

1.8 The DTI's planning assumption for its budget provides for receipts from sales of stockpile materials of £20m in 1986/7 and £13m in 1987/8. The implication of the recommendations would be to leave a shortfall of £9m in 1986/7 which might require a supplementary estimate, on the assumption that the sales and purchase indicated above are completed in 1986/7. Furthermore, there could be a shortfall in the DTI budget of £13m in 1987/8. If sales of vanadium were put off until 1987/8, the shortfall in the current year would be correspondingly greater and in 1987/8 correspondingly less. These financial aspects will be discussed, initially between the Secretary of State for Trade and Industry and the Chief Secretary, Treasury, as part of the forthcoming PES round.

2. BACKGROUND

2.1 In the late 1970s and early 1980s increasing concern was felt in industry and Government about the potential effects on United Kingdom industry and employment of a disruption in supply of certain strategic materials. The main worry was the heavy dependence on South and Southern Africa for supplies of a number of essential minerals, and that for several of these the main potential alternative source of supply was the Soviet Union.

2.2 In the light of the Government's view that the private sector should be responsible for maintaining its own stocks, there were extensive consultations with industry about its financing additional stocks. However, it was recognised that in the short term those industries which would be most affected by disruption of South African supplies, such as the public and private sectors of the steel industry and aerospace industry, could not afford the extra costs entailed. Furthermore, a suitable private sector scheme for funding the stockpile could not be devised.

2.3 Ministers therefore decided in September 1982 to set up a Government funded stockpile of various forms of cobalt, chromium, manganese and vanadium. Niobium sourced in Brazil was added in 1984. £35m was made available by the Treasury in 1982/3 and £3m and £3.5m respectively of the Department of Trade and Industry's voted provision was spent in 1983/4 and 1984/5. The DTI stockpile was intended to cover normal peace-time consumption by United Kingdom industry in the event of short term disruption and not to cater for prolonged disruption of supplies. It was also recognised that some of the materials are important in the manufacture of certain kinds of defence equipment.

2.4 The stockpile was set up under the Supply Powers Act (1975) and the legal basis for DTI acquiring and holding minerals is a formal request by the user companies. The requesting companies, on behalf of which the DTI

holds minerals, undertook to purchase the materials at, or near, the market price in the event of an emergency. The terms of their participation clearly establish that the timing of any disposal, and the conditions attached to it (to whom, at what price, for what use etc), are subject to the discretion of the Secretary of State for Trade and Industry.

2.5 The target figure for the number of months of stocks of a material to be held in the stockpile was determined by the Department in the light of advice from industry. This target was translated into actual volumes of materials at current consumption rates on the basis of formal requests by user companies. Where there was a significant discrepancy between the requests made and United Kingdom consumption figures, the British Geological Survey (as technical advisers to the Department) advised on the need to hold additional stocks to take account of usage by smaller companies.

2.6 For working purposes a guideline target of 6 months' supply of chrome, vanadium, manganese and cobalt was set. The underlying assumption was that this, taken together with the stocks held by industry, could be expected to be eked out to 12 months or more in an emergency, which would provide time for industry to seek adequate supplies from alternative sources or through recycling or substitution. The six months' target was not achieved for all the strategic minerals because of increasing constraints on the Department's budget.

2.7 Subsequently, following a review of priorities, DTI Ministers decided in Autumn 1984 that the resources devoted to the stockpile could be more effectively used in other DTI programmes. Discussions were held on schemes for possible private sector funding but no suitable proposals emerged. An announcement of the decision to dispose of the stockpile over the next few years was made in November 1984.

2.8 Following the announcement the FCO, MOD and the Department of Energy expressed concern about the decision and requested collective discussion of the policy, taking into account the developing situation in South Africa. Following Ministerial exchanges, sales of stockpile materials planned for 1985/6 proceeded but it was agreed that a decision on further disposals should await the conclusions of a review by an inter-departmental group of officials set up to examine the risks of a disruption of supplies to United Kingdom industry and the possible options for financing the stockpile.

2.9 On 24 June 1986 (before this review was complete) the future of the stockpile was discussed briefly at a meeting of OD about wider aspects of policy towards South Africa. The Secretary of State for Trade and Industry wrote to the Prime Minister on 21 July proposing to limit disposals in 1986/7 to the less vulnerable materials and to review the position of the remainder, judged to be more vulnerable to disruption, in the light of events in South Africa. As a result of the Prime Minister's response that further consideration should be given to the matter by officials, an Ad Hoc Group chaired by the Cabinet Office was set up. The present report has been produced by this Group.

2.10 Prior to 1985/6 no sales of stockpile materials were undertaken, except for marginal adjustments to reflect changes in the pattern of United Kingdom industrial consumption identified by consultations with the requesting companies. In 1985/6 the estimated value of the stockpile was £46m, of which £12m was realised from sales, mainly of manganese bearing materials which are considered to be less vulnerable. These receipts were fully accounted for in 1985/6, although in the event certain of the DTI programmes on which the money was to be used were underspent, so that some of the benefit was surrendered by DTI. The DTI budget assumes receipts of £20m in 1986/7 and £13m and 1987/8 from stockpile sales, but no disposals have been made to date in 1986/7. The

current value of the stockpile is estimated to be about £34m but this would fall if mineral prices fell or if the £ strengthened against the US \$ (minerals are priced in US \$). The maintenance costs are £0.5m pa.

3. THE IMPACT OF A DISRUPTION OF SUPPLIES ON UNITED KINGDOM INDUSTRY

3.1 The extent of United Kingdom industry's use of materials which depend on a strategic mineral input varies markedly between industrial sectors [see Annex 1]. Strategic minerals are vital to a number of industrial, defence and energy related applications. The impact of disruption of South African supplies would be felt first by the iron and steel industry and the non-ferrous metal and ferro alloy industry, with a knock-on effect over time on secondary users. Disruption would be 17eatest in the first six months, when it is hard to envisage the loss of supplies being made up; there would be significant price rises and speculative trading. Subsequently, existing sources would increase production where possible, and the process of commissioning new sources would be initiated. This, combined with the validation of lower quality material, changes in engineering specifications and the increased incentive for substitution and recycling, should alleviate the problem in the medium to long term.

4. POLICIES OF OTHER INDUSTRIALISED COUNTRIES

4.1 All major Western industrialised countries are highly dependent on South Africa for supplies of strategic minerals [see Table 1]. Certain of our competitors are better placed because of the availability of domestic resources, eg USA, or trade links with alternative suppliers, eg Japan. They would, however, all experience serious difficulties if South African supplies of the form of chromium most vulnerable to disruption, ie chemical grade, were not available. Additionally they would be more vulnerable than the United Kingdom in respect of platinum group metals since our special position as a trading and processing centre causes substantial stocks to be maintained by the market in this country.

4.2 The policy adopted by other industrialised countries in the face of dependence on South Africa has varied. France, USA and Japan have Government stockpiles, whilst West Germany has pursued a policy of diversifying sources of supply. Of those countries with stockpiles, which also include Finland, Sweden and Switzerland, the level of stocks varies from 21 days for Japan, 2-12 months for France, to up to 3 years for the US defence stockpile [see Annex 2].

5. POLICY OF THE SOUTH AFRICAN GOVERNMENT

5.1 The South African Government is well aware of the dependence of Western industrialised countries on its exports of strategic minerals. Although mineral exports as a whole (including gold) account for 70 per cent of South Africa's foreign exchange earnings, less than 6 per cent is accounted for by strategic minerals, of which more than half is from exports of platinum group metals. Those strategic minerals for which the United Kingdom's vulnerability is greatest, namely chrome (excluding ferro-chrome) and vanadium, represent less than 0.4 per cent of South Africa's foreign exchange earnings. If the South African Government wished to restrict or ban the export of strategic metals, such a measure would have to be world-wide; if applied to exports to selected countries, it would be easily by-passed.

5.2 The South African Government published a white paper on mineral policy on 19 August, which acknowledged South Africa's reputation as "an honest trader and a reliable source of minerals", and the necessity of sustained mineral exports for the continued growth of the economy. The South African Government reaffirmed its commitment to the free market principle and to the minimum involvement of the State (except where national interest was concerned); it rejected trade sanctions and stated that South African minerals would be made available to all countries able to purchase them. The business community in South Africa would support the view that the country should maintain its reputation as a reliable supplier.

5.3 The Group considers that South Africa is reluctant to damage its commercial reputation and risk losing other exports, and that it is therefore unlikely to consider actively the possibility of interfering with exports of strategic minerals unless it is faced with major economic sanctions by the West. In these circumstances, South Africa might decide to restrict or possibly ban exports of these minerals.

6. THE STRATEGIC MINERAL STOCKPILE

6.1 Strategic materials are defined as those minerals which are critical to the needs of industry and the supplies of which are vulnerable to disruption as a result of heavy dependence on a limited range of sources of supply. In the context of the United Kingdom stockpile the criteria used for determining which materials to include have been:

- i. the degree of dependence on South or Southern Africa;
- ii. the availability of realistic alternative sources of supply (outside the Eastern bloc);
- iii. the criticality to United Kingdom industry, particularly to key industrial, energy and defence related applications;
- iv. the potential for recycling and substitution.

6.2 The materials held in the stockpile have been categorised into more vulnerable and less vulnerable, according to the availability of reliable non-communist alternative sources of supply [see Tables 2 and 3]. The more vulnerable materials are chrome and vanadium bearing materials and manganese metal, of which 3-6 months' stocks are held in the stockpile. Annex 3 contains a detailed description of these materials. Their most significant characteristics are:

i. Chemical Chrome (including Chrome Metal): the stockpile contains 6 months' supply. The United Kingdom is completely reliant on South Africa for supplies and there are no significant alternative sources, except the Soviet Union. There is also little potential for recycling or substitution. Chemical chrome is used in the form of chrome metal in a wide range of critical industrial, defence and energy related applications.

ii. Charge Chrome: the stockpile contains 4.5 months' supply, which is held on behalf of BSC. The United Kingdom is dependent on South Africa for 90 per cent of its supplies and the existing alternative sources are inadequate to replace this in the short to medium term. There is only limited potential for substitution or recycling. Charge chrome is used in the form of specialised steel and alloys in certain critical industrial and defence related applications.

iii. High Carbon (HC) Ferro Chrome: the stockpile contains 3.75 months' supply on behalf of the steel industry. Whilst South Africa remains an important supplier, providing about 15-20 per cent of United Kingdom needs, there are alternative suppliers which could at least partially replace it. In addition there is the prospect that the Soviet Union, which is a major producer, could start to export to Western industrialised countries given that it does not regard this as a strategic material. There is also some potential for recycling and substitution. HC ferro chrome is used in several materials required for critical industrial applications.

iv. Low Carbon (LC) Ferro Chrome: the stockpile contains 6 months' supply. South Africa is not a producer, but exports from the major source of supply, Zimbabwe, are heavily dependent on South African transportation, and there are insufficient alternative sources to meet world demand. There is some potential

for substitution and recycling but this is constrained by economic and technical factors. LC ferro chrome is used as an alternative to chrome metal in certain high performance alloys needed for defence and energy related applications.

v. Manganese metal: the stockpile contains 3 months' supply. The United Kingdom is reliant on South Africa for 60 per cent of supplies but there are existing and potential alternative sources which could at least partially replace it. There is some scope for substitution in certain uses but little prospect of increasing recycling. Manganese metal is used in the production of materials which are employed in critical industrial applications, and indirectly by the defence industry.

vi. Vanadium (Vanadium Pentoxide, Ferro Vanadium and Vanadium Aluminium): the stockpile contains 8-10 months' supply. The United Kingdom depends for 50 per cent of its needs on South Africa, and this will have increased with the recent cessation of Finnish production. There is only one existing (and unreliable) alternative source - China - although in the medium to long term other replacement sources could become viable. Since South African production is a by-product of steel production, a fall in the latter as a result of sanctions against steel imports from South Africa could affect vanadium supplies. Limited substitution and recycling are feasible in certain applications. Vanadium is required in the production of super alloys and special steels used in critical industrial, defence and energy related applications.

6.3 The less vulnerable materials held in the stockpile consist of manganese bearing minerals, cobalt, niobium and silico chrome. There is generally 4.5-6 months' supply (excepting high carbon ferro manganese). With the exception of silico chrome, stocks held by industry do not exceed two months. Annex 4 contains a detailed description of these materials, of which the most significant characteristics are:

- i. Manganese Bearing materials (HC and LC Ferro Manganese and Silico Manganese): these are virtually irreplaceable in basic steel making. However, there are adequate realistic alternative sources with substantial underutilised capacity, including Australia, Brazil and Ghana. Demand for manganese has declined steadily over recent years.
- ii. Manganese Ore Battery Grade: this is not produced by South Africa and there are adequate sources available, primarily Ghana, Gabon and Australia.
- iii. Silico Chrome: the major users judge that silico chrome is no longer technically essential for the processes in which it is used and can be replaced by non-strategic materials.
- iv. Cobalt: this is not produced by South Africa, but the major suppliers are Zambia and Zaire which rely heavily on South African transportation for exports. Cobalt is vital to the production of super alloys used in critical defence and industrial applications and there is little scope for substitution. However, there is currently substantial over-production and under-utilisation of capacity, causing a slump in market price. In the event of disruption to transportation cobalt could be exported by air - at a price - provided that South Africa did not take military action to prevent this.

v. Niobium (Ferro and Nickel Niobium): South Africa is not a source of niobium, which is produced almost exclusively by Brazil in the non-communist world. It is used in the production of steel and non-ferrous alloys, and in some applications is interchangeable with vanadium. Niobium was added to the stockpile in 1984 because of doubts about the financial stability of Brazil and concern that the close political relations between Brazil and Argentina could lead to United Kingdom industry being denied access to supplies during any future confrontation over the Falkland Islands. These factors are no longer judged to constitute a major risk to the continuity of supply.

6.4 Other minerals commonly regarded as strategic, for which the United Kingdom is heavily dependent on imports, are examined in Annex 5. The United Kingdom is not dependent on South Africa for supplies of these minerals except platinum group metals, antimony and andalusite. The vulnerability of these minerals to disruption of supply is not judged to be significant:

i. Andalusite: substitute materials are available from other sources;

ii. Antimony: there are alternative sources of supply;

iii. Platinum Group Metals: the United Kingdom is very heavily dependent on South Africa for supplies. However, the United Kingdom is a trading centre for platinum and has primary and secondary refining capacity which maintains substantial stocks of platinum. This, taken with the ability of industry to recycle 75 per cent of its needs, greatly reduces our vulnerability. The introduction of catalytic exhaust converters would not substantially alter this position up to 1990.

7. OTHER CONSIDERATIONS

Independent Report by Mr Fuller

7.1 In June 1986 the DTI commissioned a study by an independent consultant which concluded that a Government strategic stockpile was justified since short term risks to disruption were a growing threat, but that the only justification for increasing stocks beyond the short term requirement, ie 3-6 months, would be military or price considerations. The report considered that the effect of disruption would be dramatic over 3-6 months with shortages, panic buying, speculative hoarding and price rises, but that this would be capped by the availability of supplies from other sources. It also commented on the vulnerability of various groups of minerals; its conclusions were generally in accord with the views of the DTI's expert advisers. [There were differences in respect of the more vulnerable materials, where the report was more sanguine about the availability of alternative sources because it took insufficient account of important distinctions between the different forms of chrome and vanadium bearing materials.]

UK as a potential source of strategic minerals

7.2 The British Geological Survey is continuing to undertake a programme of geological research to identify areas in Great Britain with economic potential for mineral exploitation. However, the likelihood of discovering resources which could be developed within a timescale relevant to our current concerns over South Africa is remote.

The long term potential for substitution

7.3 The ability of industry, particularly in mass and continuous production activities, to change materials is limited in the short term. With the exception of other strategic minerals there are few ready

substitutes for strategic minerals at the present time. It would require some form of external impetus to bring on stream the results of the more fundamental research being undertaken on substitution. In view of the long lead time and substantial investment involved, substitution is more typically a medium to long term option than a short term solution to disruption of supplies.

The role of industry in ensuring the availability of adequate supplies of strategic minerals

7.4 DTI Ministers recently met the Chairmen of the major companies which are users of strategic minerals, to draw their attention to the potential dangers from any disruption of supplies from South Africa; and in the light of this to advise them to take steps to ensure access to adequate supplies through diversifying sources of supply or increasing stocks. Whilst most companies recognised that it was desirable to diversify sources, their reactions were mixed - some companies actively pursuing alternative sources and others taking the view that this was a matter for Government [see Annex 6].

7.5 The level of stocks held by industry is in general low, ie 6-8 weeks, with the exception of chemical and silico chrome. Although several companies confirmed their intention to increase the level of their stocks, in general it was judged that declining strategic mineral prices made stockpiling unattractive and rendered alternative sources even less viable. More generally, there was a fairly widespread view that sanctions against South Africa would in practice be ineffective and therefore were unlikely to cause South Africa to retaliate by stopping exports of strategic minerals [compare with our assessment in paragraph 5.3].

8. THE FUTURE OF THE STRATEGIC STOCKPILE

8.1 The Ad Hoc Group considers that, since vulnerability and other factors relating to each of the materials vary, a single target figure for the stock-pile of all is inappropriate. A level of stocks should be determined for each material, taking into account the factors outlined in this report. There are inadequate grounds for this exceeding six months in respect of any of the minerals.

8.2 The Ad Hoc Group concludes -

The more vulnerable materials

a. CHROMIUM

i. Chemical chrome/chrome metal is an essential mineral and the UK is completely reliant on South Africa. However, private sector stocks contain 18 months' supply. The stocks are held by a single British owned company which is profitable; there is no reason to expect that they will diminish. On balance it is therefore safe to reduce stocks to three months' supply;

ii. There is a case for increasing the stocks of charge chrome (4.5 months' plus 2 months held by industry) given the UK's significant dependence on South Africa and the absence of adequate alternative sources in the short-to-medium term. We should continue to press BSC, on whose behalf the material is held, to increase its stocks from within its current budget. The Chairman of BSC has undertaken to try to achieve this. Assuming that he succeeds, government stocks need not be increased;

iii. The UK is heavily dependent on South Africa for high carbon ferrochrome but, given the potential for expanding alternative sources of supply and the prospect of exports from the Soviet Union to Western countries in the event of a shortage, existing stocks of 3.75 months' supply (plus 1.5 months' held by industry) need not be increased;

iv. The importance of low carbon ferrochrome to the defence and energy industries, and the threat posed by South Africa to its transportation from Zimbabwe, confirm the need to maintain the present stock of 6 months' supply (plus 1.5 months' held by industry).

b. MANGANESE METAL

Since the UK is heavily dependent on South Africa for supplies of manganese metal, which has certain defence applications, and our stocks stand currently at only 3 months (plus 1 month held by industry), there is a case for increasing the level. However, to move to 6 months seems unnecessary because of the availability of existing and anticipated alternative sources of supply, and active attempts by the major UK consumer, Rolls Royce, to diversify sources of supply. The revised target for the stockpile should therefore be 5 months, ie an additional 2 months' supply.

c. VANADIUM

Dependence on South Africa is high and increasing. There is therefore a strong case for holding six months' stocks of vanadium. Existing stocks are greater than this, representing 10.25 months' supply of ferro vanadium (including 4.75 months in the form of vanadium pentoxide) and 8.25 months' supply of vanadium aluminium (plus $1\frac{1}{2}$ months' supply of vanadium held by

industry). South Africa's production of vanadium is almost entirely recovered from the steelmaking process, so that supplies may be affected by the EC ban on imports of South African steel. Sales of our excess stocks should be delayed until the effects of this ban are seen.

The less vulnerable materials

d. For the reasons given in paragraph 6.3 there is no need to retain stocks of the less vulnerable materials. However, with regard to cobalt, disposal of the last three months' supply should be subject to confirmation that the supply position in the market is unchanged.

Other Minerals

e. For the reasons given in paragraph 6.4 and in Annex 5, no other minerals need be added to the government stockpile.

RELIANCE OF UK INDUSTRY ON STRATEGIC MINERALS

Background

1. The extent of UK industry's use of materials which depend on a strategic mineral input varies markedly between industrial sectors. A number of industrial applications are vital to the defence and energy related industries or critical to other sectors of the economy.

2. The impact of disruption of supplies of strategic minerals for which the UK is dependent on South Africa would be felt first by the iron and steel industry, and the non-ferrous metal and ferro-alloy industry, with a knock-on effect over time on secondary users.

Iron and Steel

3. Four main categories of steel production are heavily dependent on chrome and vanadium compounds:

- i stainless steel: produced by BSC (2,500 employees); the main uses are process and power plant and consumer durables;
- ii low alloy steels: of which -
 - a Engineering steels produced by United Engineering Steels (15,000 employees);
 - b Bearing steels produced by BSC (1,500 employees);
 - c steel bars produced by the private steel companies (100 employees) for the construction industry.
- iii Super alloy steels: produced by the ferro alloy industry (1,000 employees) for use in eg aerospace;
- iv Reinforcing steels: bulk steel production by BSC for use in the construction industry.

4. The overall effects of a disruption of supply of strategic minerals would be felt within 3-4 months in these sectors which together employ 20,000 people. The impact would be most significant in stainless steel because of the heavy dependence on chrome which constitutes 15% (by value) of the finished product and the competition from alternative materials.

Non-Ferrous Metals and Ferro-Alloys

5. UK companies convert strategic mineral compounds in ore or processed form into derivatives such as chrome metal [British Chrome+Chemicals] for use in the production of high grade metal and super alloys of ferro vanadium [Murex and London and

Scandinavian] for use in special and high grade steels. Total employment in the industry is of the order of 1,000.

Manufacturing Industry

6. Materials incorporating vulnerable strategic minerals (chrome and vanadium) are used in a wide range of industrial sectors:

- i Heavy Electrical Goods - transformers, motors and generators require high grade steel components;
- ii Process plant - corrosion resistant alloys and specialised steels are used in boilers, furnaces, heat exchangers, pressure vessels, pumps, tank valves and pipes;
- iii Tools and Bearings - bar, bearing and sheet steel are used in the production of bearings and tools eg drills;
- iv Vehicles - special steel alloys and engineering steels are used to produce components required for manufacturing gears, crankshafts, suspension, engine castings, pistons etc;
- v Chemicals - strategic minerals are used mainly as raw materials or catalytic additives in the production of chromic acid (for chrome plating), sulphuric acid, pigments, wood preservatives, fertilisers, animal feedstuffs, pharmaceuticals, insecticides, petro-chemicals, enamels, paints and leather tanning;
- vi Aerospace - high strength-to-weight, corrosion-resistant high temperature alloys are used in aero engines eg blades and compressors, castings and forgings, and body work panels.

Defence and Energy

7. Certain of the products and compounds identified have application in the defence and energy sectors:

- i Defence: bearings, castings and forgings (gun forgings and shell cases), jet and gas turbine engines etc for use in tanks, fighter aircraft, warships and helicopters;
- ii Energy: pipes, pressure vessels, construction materials, heat exchangers, tanks etc for use in offshore oil and gas, petroleum refining, electricity generation, nuclear energy and fuel processing.

POLICY ADOPTED BY OTHER COUNTRIES TOWARDS THE STOCKPILING OF STRATEGIC MINERALS

1. Of the major industrialised countries France, Japan and the US maintain strategic mineral stockpiles:

i FRANCE: the stockpile is jointly financed by Government and industry, and consists of between 2-12 months supply of a wider range of minerals than the UK stockpile, eg tungsten, zirconium, nickel, titanium, aluminium. France has been selling off stockpiled materials recently, including cobalt and charge chrome.

ii JAPAN: the stockpile consists of three elements ie Government, joint and private sector which collectively represent supplies of 21.5 days (Government and joint stockpiles 9 days each, private 3.5). The Government intend to increase stocks to 26 days in the course of 1986 and its ultimate goal is 60 days. The stockpile includes, in addition to the materials in the UK stockpile, nickel tungsten and molybdenum.

iii USA: the US maintains a large Government stockpile of numerous materials considered to be essential to maintaining the defence capability; the stocks currently held include between 1-3 years supply of the materials in the UK stockpile. Stockpile targets are expected to be reduced to 2 years' supply of materials such as chromium and cobalt, and one year's supply of other materials.

2. The FRG has considered establishing a stockpile but concluded that it is the responsibility of industry to maintain stocks. Private sector stocks representing about 2 months supply of the most important minerals have been increased slightly, and industry has pursued a policy of diversifying sources of supply. The FRG considers that the likelihood of retaliatory action by South Africa is dependent on the imposition of wider international measures.

3. The FRG's view is shared by the Netherlands which does not consider that special measures such as stockpiling are required. The issue of stockpiling and diversification of sources of supply is not known to be under active consideration in other EC Member States, which remain relatively relaxed about the likelihood of a cessation of South African supplies.

4. Finland, Sweden and Switzerland maintain small strategic stockpiles but these do not include all the materials regarded as strategic by the UK.

U.S. STRATEGIC STOCKPILE: MORE VULNERABLE STRATEGIC MINERALS

1. Chemical Chrome

The stockpile contains 30,247 mt of Chemical Chrome Ore which represents 4½ months supply with Industry holding an additional 18 months' supply [Total about 2 years]. In addition it holds 105 tonnes of Chrome metal processed from 500mt chemical chrome ore which represents 1½ months supply.

a. Uses : Chemical Chrome is used in the chemical industry in paints, leather tanning, drilling muds, chromium plating and in the production of Chrome metal. Camouflage paint is used by the MoD and chromium plating by the aerospace and vehicles industries. Chrome metal is essential in the production of high duty super alloys for aerospace, nuclear and energy applications and in jet and gas turbine engines used in military aircraft.

b. Dependence on South Africa : High. The UK obtains all its supplies of Chemical Chrome from South Africa, which is the largest producer of this material.

c. Alternative sources of supply : The USSR is the only other major producer of Chemical Chrome. Other sources such as India and Finland are too small to be able to meet world demand. Chrome Metal can however be obtained from China but this is a new and untried source.

d. Potential for substitution, recycling and alternative processes : There is little possibility of recycling or substituting chemical chrome or chrome metal in the majority of their applications. Chinese chrome metal is not currently acceptable for aerospace applications because of its lower quality but in times of shortage it is likely that specifications would be reduced. Chrome metal can also be replaced by LC ferro chrome in certain high performance alloys and in some nuclear applications.

2. Charge Chrome

The stockpile contains 19,959 mt of Charge Chrome which represents 4½ months supply with industry holding an additional 2 months of stocks [Total 6½ months].

a. Uses : Charge Chrome is a critical raw material in the production of bulk stainless steel. It is also vital to the production of super alloys for rigorous applications and other alloy steels, certain cast iron products and tools. Many of these products have defence-related applications as well as being important in many other downstream industries such as vehicles and engineering.

b. Dependence on South Africa : The UK is about 80% dependent on South Africa which meets 60% of world demand for Charge Chrome.

c. Alternative Sources of Supply : Other sources include Brazil, Philippines, India, Turkey and Finland, but these are not adequate to replace supplies from South Africa in the short to medium term. It is believed that the USSR produces no charge chrome, but uses other forms of chrome in its place.

d. Potential for Substitution, Recycling and alternative processes : There is only marginal possibility for substitution for charge chrome and very little recycling in the production of super alloys. Charge Chrome is principally recycled from stainless steel (in the production of stainless and alloy steels 42% of the chromium used is recycled scrap), but this is vulnerable to substitution by plastic and surface coatings, in certain applications. There is some possibility of upgrading other forms of chrome ore, obtainable from outside South Africa, to charge chrome standards. HC Ferro Chrome can also be used as a substitute, but is less satisfactory.

3. High Carbon (HC) Ferro Chrome

The stockpile contains 4,805 mt of HC Ferro Chrome, representing 3½ months supply with industry holding an additional 1½ months stocks [Total 5½].

a. Uses : HC Ferro Chrome is used in certain steels where carbon content is less limiting and is an important constituent in cast iron. It therefore has only indirect defence applications, its primary uses being in down stream industry.

b. Dependence on South Africa : South Africa is a major producer of HC Ferro Chrome, supplying the UK with 40% of its needs.

c. Alternative Sources : There are alternative sources of supply of the ore in Finland, Turkey and Albania, but if South African sources of ore were denied, there might be some difficulty in maintaining production of HC Ferro Chrome in Europe. The USSR, although a major producer, exports its material almost entirely to Eastern Bloc Countries. There is a prospect however that in the event of an emergency it might export to the West.

d. Potential for Substitution, Recycling and Alternative processes : There is some scope for substitution in all steels by manganese, molybdenum and nickel but this

approach is more expensive. In the production of steel alloys a significant proportion of the chromium used is contained in recycled scrap. HC Ferro Chrome is also less dependent on the quality of chrome ore used in its production than is the case with other form of chrome..

4. Low Carbon (LC) Ferro Chrome

The stockpile contains 5,000mt of LC Ferro Chrome, representing 6 month's supply, with industry holding an additional 1½ months stocks [Total 7½ months].

a. Uses : LC ferro chrome is used (for final chromium adjustments) in stainless steel, for certain grades of LC special alloy steels and as an alternative to chromium metal in certain high-performance alloys and in nuclear equipment components. It has certain defence applications as super alloys are used in jet engines in military aircraft as well as in various down-stream industries.

b. Dependence on South Africa : There are no major exports of LC Ferro Chrome from South Africa. The major source is Zimbabwe, but it is heavily dependent on South African transport to export supplies.

c. Alternative Sources : There are currently insufficient alternative sources to meet world demand. The Eastern Bloc does not export LC ferro chrome, producing it for its own consumption.

d. Potential for Substitution, Recycling and Alternative Processes : There is some scope for substitution in alloy steels by manganese, molybdenum and nickel but this approach is more expensive. In the production of and alloy steels a significant amount of the chromium used is contained in recycled scrap. Both chrome metal and HC ferro chrome can be used as substitutes in some areas. The former is more expensive, the latter much less satisfactory.

5. Manganese Metal

The Stockpile contains 515 mt of manganese metal, representing 3 months' supply, with industry holding only about a month's stocks [Total 4 months].

a. Uses : Manganese metal has certain defence related applications being used in the production of stainless steels, as a hardening constituent in copper and aluminium alloys and welding electrode coatings. It is also used in the chemical industry and in the production of ceramics.

b. Dependence on South Africa : South Africa is the world's largest producer of manganese metal (50% of world output) and provides the UK with nearly all supplies from two companies : Delta and EMCOR. There are no exports of manganese metal from the USSR.

c. Alternative Sources : Several other companies also produce Manganese Metal, three in the USA producing 25% of world output, two in Japan and one in France. Brazil also plans to bring on stream production representing up to 10% initially of existing world production and could increase supplies quickly given the financial incentive. China also exports manganese metal, although of a lower quality than South African.

d. Potential for Substitution, Recycling and Alternative Processes : Possible substitutes for manganese metal as used as an alloying agent are chromium, molybdenum and nickel. There is no recycling of manganese in this form.

6. Vanadium - (Vanadium Pentoxide, Ferro Vanadium, Vanadium Aluminium)

The stockpile contains 5½ (10½, including material which could be converted from Vanadium Pentoxide) of Ferro Vanadium, and 8½ months of Vanadium Aluminium with industry holding an additional 1½ months each. [Total 12 and 10 months respectively taking account of the potential to convert Vanadium Pentoxide to Ferro Vanadium.] The stockpile contains 373 mt of vanadium pentoxide, representing 3½ months supply, with industry holding an additional ½ months stocks [Total 4 months]. As well as in the production of ferro Vanadium and Vanadium Aluminium, Vanadium Pentoxide can be used in various chemical applications.

a. Uses: Ferro vanadium is an important constituent in super alloys, high speed and rod steels. Vanadium aluminium is used in the production of titanium alloy, for the aerospace industry. Both have defense applications mainly in jet engines for military aircraft. Ferro Vanadium is also used in the downstream industries, mainly engineering.

b. Dependence on South Africa : South Africa produces 60-70% of world output. This figure is due to increase as a result of the cessation at the start of 1986 of Finnish production (12% of world output). South Africa currently supplies the UK with 50% of its needs. 90% of South African production derives from the steel making process. A reduction in South African steel production as a result of an import ban by Western countries would therefore reduce production of vanadium.

c. Alternative Sources : Currently the only alternative significant primary source of vanadium is China (10-12% of world output) but this source is still unpredictable and unreliable. The USSR, although the second largest producer, exports only a small amount to the West. In 1984 9% of the UK imports came from the USSR.

Vanadium can also be produced as a by-product of uranium phosphate rock and oil and in this context the USA is viewed as a potential medium to long term source of supply of vanadium. Viability, however, would require a six-fold increase in price to justify production from these sources on the basis of solely vanadium content.

d. Potential for Substitution, Recycling and Alternative Processes : Vanadium in alloy steels and super alloys can to a certain extent be replaced by niobium, titanium or chromium. However, it cannot be replaced in the critical titanium alloy used in aero-engines. Vanadium is recycled from steel scrap and spent catalysts, amounting to some 16% of total use.

UK STRATEGIC STOCKPILE: LESS VULNERABLE STRATEGIC MINERALS

1. Silico Chrome

Silico Chrome is used in the manufacture of special stainless steel. There is no technical necessity for its use; the reasons are commercial there are non-strategic alternatives.

2. HC Ferro Manganese, LC Ferro Manganese, Silico Manganese

Manganese is the form of the metallurgical ore or ferro alloy is an essential element in steel production. UK imports of metallurgical ore are for this the production of ferro alloys.

South Africa, although accounting for 40% of UK imports of manganese ore, only accounts for 13% of world production. Alternative sources include Brazil, Gabon, China and Australia; many are currently below capacity and in current circumstances the loss of South African production could probably be adequately replaced within a year from other producers outside the Eastern Bloc. There would be sufficient material in transit, on in stocks held by agents and alternative suppliers to meet immediate needs before additional production comes on stream. No substitution is possible in steel making, but in the production of ferro alloys some substitution is possible with more expensive materials. There is some degree of recycling of manganese recovered from steel scrap.

3. Manganese Ore (Battery Grade)

Battery Grade ore is a form of non-metallurgical Manganese Ore used in the manufacture of dry-cell batteries. It is not produced by South Africa but from a number of other sources, notably Gabon. The UK imports all its material from Ghana.

4. Cobalt Metal

Cobalt metal is used in the manufacture of special high temperature and abrasion resistant alloys, superalloys for use in gas turbine engines and petro-chemical rock drilling, chemicals and ceramics/special steels and permanent magnets. The scope for substitution varies but for most applications it would be feasible only in the long term. There is some recycling principally as an alloying constituent from alloy steels.

There is no South African production, Zaire and Zambia are the largest producers, accounting for well over 50% of world production (excluding USSR and Cuba). Both countries rely heavily on South Africa for transport of the material to sea ports. However as the tonnages are small much of the material could be airlifted out if transport routes were disrupted (as has happened

previously), at a higher cost. Alternative sources of supply include Canada and Finland.

Ferro Niobium, Nickel Niobium

Both forms of niobium are essential to the production of some super alloys used in the defence industry in jet engines; in the energy industry in high pressure pipe lines, generating plants, nuclear reactors and offshore drilling platforms; and in the vehicle industry.

There is no South African production. Brazil has 80% of non-communist world reserves and accounts for 90% of world production. Other producers include Canada, Australia, Thailand, Nigeria and Malaysia.

Niobium can be partially substituted by vanadium, titanium, tantalum and molybdenum but in general these substitutes are less effective and more expensive. There is some recycling.

5 DEPENDENCE ON OTHER STRATEGIC MINERALS

1. PLATINUM GROUP METALS

The UK is dependent on South Africa for 70% of its imports of platinum group metals (South Africa produces 40% of world production). The only realistic alternative source (excluding the USSR which accounts for 56% of world production) is Canada with 3% of world production. However, only 25% of UK imports are used directly for industrial applications, the remainder supporting the UK's role as a major world centre for marketing and processing of platinum group metals.

The effect of an import ban on South African supplies of platinum group metals would be therefore primarily on UK trading, refining and fabricating firms, ie Johnson Matthey and INCO. However their refining plants use a considerable amount of recycled material and Johnson Matthey is reported to have 6-9 months stocks available independent of South African sources.

In 1989 Johnson Matthey is transferring its primary refining plant at Royston to a new refinery in Bophuthutswana in South Africa. This would mean that all its primary refining of platinum mined in South Africa would be conducted in that country. Secondary refining would still remain, but this move would significantly reduce the role of the UK as a refiner and exporter of the metal in processed form and could also reduce the level of stocks held in the UK.

In industry platinum group metals are used in nitric acid manufacture, petroleum refining, thermocoupling, electronic components and chemical manufacture. The effect of an interruption of South African supplies would not be very great, 75% of needs can be met from recycled materials (excluding toll refining of catalysts). In the event of a cut off of supplies there would probably be a sharp rise in price concomitant with the appearance in the market of extra "recycled" material and possibly some substitutes. If supply was to be restricted in the long term the USA could start production from the Stillwater complex in Montana, which, it is claimed, could supply all essential US demand.

It is probable that the use of platinum group metals in catalytic converters will increase substantially in 1988 when the EC passes legislation on reducing atmospheric pollution. The UK supplies at least 50% of European demand for platinum group metals and is likely to meet increased demand pro rata. This would mean that by 1988 the UK would have to supply only an additional 4% of 1984 European demand (0.6 tonnes) and by 1990 an additional 10% (1.5 tonnes).

2. **ANTIMONY**

Antimony oxide is produced in the UK from imported concentrates and metal. Its main use was in batteries but this has been in decline because of substitution. It is, however, now used increasingly as a flame retardant particularly in plastics and as a catalyst in polyester products.

Although the UK's main source of supply is South Africa there are reliable alternative sources, including China, Bolivia, Mexico, and numerous other countries outside the Eastern Bloc which could step up production.

3. **Other Key Minerals produced by South Africa**

Other key minerals produced by South Africa include Andalusite, Asbestos, Sillimanite, Chamotte Earth, Iron Ore, Mica, Titanium, Tin Concentrates, Vermiculite and Zirconium. There are some strategic applications including use in military aircrafts and in nuclear applications, as well as in downstream industry. However these materials have a low degree of vulnerability to disruption of supply because there are sufficient alternative sources outside the Eastern Bloc.

4. **Other Key Minerals not produced by South Africa**

Key minerals, important to the UK economy, but which are not produced by South Africa, include Germanium, Tantalum, Gallium and Molybdenum. These minerals have important uses in certain areas such as the steel and electronics industries. There are a number of sources for these minerals outside the Eastern Bloc including the USA, Australia and Canada which are sufficient to meet demand. In DTI's continuing consultations with industry about the strategic stockpile, these materials have not been identified as a priority for addition to the stockpile. The British Geological Survey, has advised that the vulnerability of these minerals to disruption of supply is not significant.

REPORT ON USER COMPANIES' MEETINGS WITH DTI MINISTERS

DTI Ministers met Senior Representatives of the main user companies' of strategic minerals recently. The purpose of the meetings was:-

1. To draw the attention at top level in user companies to the potential danger from disruption to supplies of strategic minerals from or dependent on South Africa.
2. To seek the views of companies on their ability to secure adequate supplies of strategic minerals in the event of disruption to Southern African supplies.
3. For ministers to advise companies that industry should make arrangements to ensure that it had access to adequate supplies of strategic minerals either through alternative sources or through building up stock levels in order to guard against the effect of possible disruption to supplies from Southern Africa.

Securing of Supplies

The reaction of companies was mixed. Most recognised that it was in their interest to diversify sources where possible and a number of them are investigating new sources eg The British Steel Corporation are investigating the possibility of obtaining chrome ore from Turkey for processing into ferro chrome in Scandinavia.

Other companies' are considering increasing their levels of stocks or could use alternative processing methods to reduce dependence on South African minerals. Some companies, however, took the view that it was for Government to ensure that adequate supplies of strategic minerals were available.

Alternative Sources of Supply

The greatest concern was expressed in relation to the availability of alternative sources of the various forms of chrome. There was considerably less concern about the availability of alternative sources of vanadium and little in respect of either manganese or manganese metal.

Views were again mixed, although all were agreed that in the event of a cut off of South African supplies prices would rise, but most felt that material would be available and a view expressed by more than one company was that the USSR would take the opportunity to sell chrome at an enhanced price. Some companies however, took the view that in the event of a cut off of South African supplies, alternative supplies would not necessarily be available in sufficient quantity to satisfy demand.

Companies also referred to the possibility of increased use of scrap; substitution eg niobium for vanadium in some uses or simply producing lower grade steels; and the upgrading of material from elsewhere to South African standards.

Increasing Company Stock

Although as mentioned above several companies reported that they are increasing their stocks or were considering doing so, a number pointed out that the price of several important South African strategic minerals was still falling. This made it financially unattractive to stockpile, and also made it more difficult for other countries to develop alternative sources for these minerals on an economic basis.

Evasion of Sanctions

There was also a fairly widespread view that even were sanctions imposed either by the South Africans or by the importing countries, they would be evaded by some means or other. This point was often mentioned in tandem with the thought that increased supplies would be likely to arise from the eastern block.

TABLE 1

DEPENDENCE OF THE MAJOR WESTERN INDUSTRIALISED COUNTRIES ON STRATEGIC MINERALS FROM SOUTH AFRICA

Direct and Indirect Dependence on South Africa in 1980 (1983 in brackets where known)

MATERIAL	UK	FRANCE	W GERMANY	USA	JAPAN
Chromium	73 (33)	33	52	63 (55)	59
Manganese	43 (56)	40	40	51 (35)	40
Vanadium	31 (15)	58	51	66 (44)	90
Platinum Group metals	63 (77)	59	53	76 (49)	61

Source: British Geological Survey "World Mineral Statistics".

STRATEGIC MATERIALS	MAJOR SUPPLIERS TO UK (1983 FIGURES) %		WORLD EXPORTERS (1984 FIGURES) %	
			PRIMARY PRODUCERS	SECONDARY PRODUCERS*
<u>More Vulnerable</u>				
Chemical Chrome	South Africa	100	South Africa 96 Finland 2 USSR <1 Philippines <1 Turkey <1 India <1	
Chrome Metal	EEC 50* Others not known		China 13	United Kingdom 54 France 23 FRG 4 USA 4 Belgium 2 Netherlands 2 Italy <1
Charge Chrome	South Africa 90 Sweden 10*		South Africa 81 Brazil 4 Greece 3	Sweden 12
HC Ferro Chrome	Turkey, India, Yugoslavia, Czechoslovakia, Zimbabwe and South Africa in approximately equal proportions averaged over a number of years		Zimbabwe 44 Yugoslavia 17 USSR <1 R of World 5	FRG 33
LC Ferro Chrome	Sweden 50* Zimbabwe 3 Italy 15*		Zimbabwe 60 Yugoslavia 5 Brazil 5	Sweden 30
Ferro Vanadium	Austria 28* Belgium 27* FRG 24* Netherlands 18*		South Africa 12 USA 5 Canada 3 R of World 2	Belgium 28 FRG 17 France 15 Austria 15 Japan 2 UK 1
Vanadium Pentoxide	Finland 70 (hitherto; mines now closed) Netherlands 25* South Africa 3 Others 2		Finland 31 (hitherto; mines now closed) USA 27 China 18 South Africa 14	Belgium 5 UK 4 France <1
Vanadium Aluminium	No figures available (FRG, USA)		No figures available (FRG, USA)	France 16 USA 9
Manganese Metal	South Africa 60 Netherlands 13* Belgium 3* Others 20		South Africa 65 R of World 1	Belgium 4 Netherlands 3 UK 2
<u>Less Vulnerable</u>				
Silico Chrome	FRG, Norway, Sweden		No figures available	
HC Ferro Manganese	Norway 45* South Africa 40 France 15*		South Africa 39 Brazil 6	Norway 37 France 10 USA 8
MC Ferro Manganese	Norway 80* South Africa 20		South Africa 23	Norway 46 FRG 31
Silico Manganese	Norway 75* Czechoslovakia 7* Others 18		South Africa 14 Brazil 11	Norway 75
Manganese Ore (Battery Grade)	Brazil 80 Gabon and Ghana 20		Ghana 20 Brazil 10	
Cobalt Metal	Netherlands 31* Belgium 21* Canada 18 Finland 9 Zaire 4 USA 4* Zambia 4		Zaire 55 Zambia 21 Canada 9 Finland 7 Belgium reprocesses significant amounts cobalt metal.	Norway (Canada Origin) 8
Ferro Niobium	Brazil 75 Belgium 25*		Brazil 90	France 5 Belgium/Lux 3 FRG 2
Nickel Niobium	No figures available.		No figures available.	

* SECONDARY PRODUCERS HAVE NO DOMESTIC SUPPLIES OF THE RAW MATERIAL.

STRATEGIC MINERALS HELD IN THE STOCK PILE: AUGUST 1986

STRATEGIC MATERIALS	QUANTITY HELD [TONNES]	ESTIMATED NO OF MONTHS SUPPLY			VALUE OF STOCKPILE (£/\$1.554) [£'000]	IMPORT DEPENDENCE ON SOUTH AFRICA	POTENTIAL FOR SUBSTITUTION: [Key A]	PROPORTION STRATEGIC MINERALS IN DEFENCE ENERGY RELATED APPLICATIONS: [Key B]	PROPORTION OF STRATEGIC MINERALS IN CRITICAL INDUSTRY- BASED APPLICATIONS: [Key B]
<u>More vulnerable</u>		Stockpile	Industry	Total					
Chemical chrome	30,247	4½	18	22½	1.301	100	1	3	1
Chrome metal	105	1¾	2	3¾	.423	100	2	1	2
Charge Chrome	19,959	4½	2	6½	6.524	80	1	2	1
LC Ferro Chrome * 1	5,000	6	1½	7½	4.053	5	2	2	1
HC Ferro Chrome	4,805	3¾	1½	5½	2.059	40	2	3	1
Ferro Vanadium	285	5½(10½)* ³	1½	7	1.913	50	2	2	1
Vanadium Aluminium	45	8¾	1½	10½	.379	50	1	1	2
Vanadium Pentoxide	373	3½	½	4	1.078	45	1	4	2
Manganese Metal	515	3	1	4	.644	50	2	2	2
<u>Less Vulnerable</u>									
SilicoChrome	120	4½	8	12½	.052	50	2	4	2
HC Ferro Manganese	3,077	8¾	¾	9½	.589	40	1	3	1
MC Ferro Manganese	5,013	3¾	¾	4½	2.105	40	1	3	2
Silco Manganese	9,500	4	¾	4¾	2.755	40	1	3	2
Manganese Ore	2,479	5	1	6	.355	NA	1	3	2
Cobalt Metal	260	5½	1	6½	1.550	NA	2	1	2
Nickel Niobium	19	5½	2	7½	) 1.832	NA	2	3	1
Ferro Niobium	306	5½	2	7½	)	NA	2	3	1

*¹ main source, Zimbabwe, relies on South Africa transportation*² value of stockpile at \$1.48 is £33.34K*³() total includes material which could be converted from vanadium pentoxideVAT 27.612
4.141£1.753 *²Key A

- 1 no substitution
2 some substitution
but with strategic
minerals

Key B

- 1 highly significant
2 significant
3 of some significance
4 not significant

IND POL : Stockpile of
Strategic Material, Aug 79

GAPC

Ref. A086/2301

MR POWELL

Good.
CID
b/p.Stockpile of Strategic Minerals

In response ^{at 11.45} to the Secretary of State for Trade and Industry's minute of 21 July, the Prime Minister suggested that further consideration be given by officials to the size of the stockpile of strategic minerals and to materials which should be included (your letter of 28 July).

2. This work will be undertaken by an ad hoc group chaired by the Cabinet Office with representatives from the DTI, Foreign and Commonwealth Office, the Treasury, Ministry of Defence and the Departments of Energy, the Environment and Employment. It will build on the work already done by the interdepartmental group on strategic minerals which the DTI recently chaired and the independent report described in the Secretary of State for Trade and Industry's minute. It will take account, among other things, of the effect of a possible disruption of the supply of strategic minerals from South Africa, the availability of other possible sources of supply, distinguishing between communist sources and others, and the relative importance of commercial and strategic use in this country of each of the minerals in question. It will also consider, for completeness, whether any materials should be added to the stockpile.

3. The group will begin work at once, and, depending on the course of events, the aim will be to report to Ministers in the first half of September.

4. The Minister of State, Foreign and Commonwealth Office (Mrs Chalker) suggested in her minute of 29 July that there should be no disposals of strategic minerals from the stockpile until October. I understand that the Secretary of State for Trade and Industry considers disposals unnecessary while the review by officials takes place.



5. I am sending copies of this minute to the Foreign and Commonwealth Secretary, the Chancellor of the Exchequer and the Secretaries of State for Defence, Energy, the Environment, Employment and Trade and Industry.

RA

ROBERT ARMSTRONG

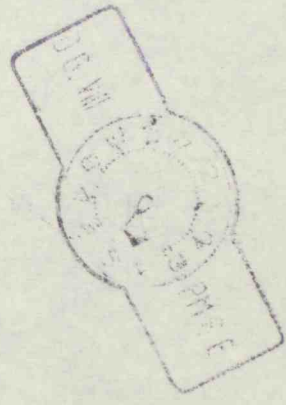
6 August 1986

CONQUEROR

INO POL Minerals Aug 79



COMPTON



CDP

I spoke to the DTI about
your letter to John Moge
of 28 July (at flap).

Apparently an official
Committee is being set
up to monitor this
issue. The DTI do not
expect to be able to
reply to your letter
before the Committee
has had a meeting.

I think Mike Gilbertson
will ring you about
this matter later today.

I don't think I
really need an answer.
It's a veiled insult!
CDP
Amanda
5.8.86.

CONFIDENTIAL



876
c/c
(42)

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

30 July 1986

Dear Tim,

STOCKPILE OF STRATEGIC MINERALS

The Prime Minister has now seen Mrs. Chalker's note of 29 July about the strategic minerals stockpile. I have already recorded the Prime Minister's views. She has added, however, that she also agrees with Mrs. Chalker's point that we should make no further disposals from the stockpile until after the Commonwealth Review Meeting in August and the European Community's discussion of South Africa in September, and should review the situation again after that.

I am copying this letter to the Private Secretaries to the Foreign and Commonwealth Secretary, the Defence Secretary, the Chancellor of the Exchequer and Sir Robert Armstrong.

Yours sincerely,

(C. D. POWELL)

Tim Walker, Esq.,
Department of Trade and Industry.

CONFIDENTIAL

876



CCPC
②

CONFIDENTIAL

PRIME MINISTER

STOCKPILE OF STRATEGIC MINERALS

1. I am replying in Geoffrey Howe's absence to Paul Channon's minute to you of 21 July. I have also seen the minutes from John MacGregor and George Younger.

2. You will recall that in September 1985 Geoffrey Howe agreed with some reluctance that sales from the stockpile in 1985/86 should go ahead. But he stressed that we should consider fully the implications of this policy before proceeding with any more disposals. An Interdepartmental Review was set up under DTI chairmanship; but it has not yet reported, and like George Younger we were not aware that the DTI had commissioned an independent study, the conclusions of which have not been discussed between departments.

3. At first sight the study's conclusions look optimistic, especially matched against the evidence set out in the table attached to Paul Channon's minute. I agree with George Younger's comments on the 'more vulnerable' strategic minerals, but even for the 'less vulnerable' minerals the possibilities of substitution seem severely limited, as is the number of months' supply cover that the stockpile provides. If the South African situation worsens, we or industry could end up having to pay far more to rebuild stocks. Conversely, the value of the government strategic stockpile is quite likely to increase in present circumstances.

4. Since OD met on 24 June the risk of serious disruption to supplies of strategic minerals has if anything increased. Industry's own stocks remain very low. This is regrettable, and we must seek to bring home to industry the risks they face. But I do not believe that we would give industry the right signals if we were to make sales from the public stockpile at this juncture. Indeed, such sales could attract public criticism.

/5.

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Prime Minister
You have already
decided that we
should preserve the
stockpile of vulnerable
raw materials, while
officials study which
whether it should be
larger &
precisely
which
minerals
should be
in it.
C.D.P.
29/7



CONFIDENTIAL

5. In these circumstances I cannot agree with Paul Channon's proposal that we should sell off even the less vulnerable materials in 1986/87. I suggest that we make no further disposals until after the crucial Commonwealth and EC meetings; and then review the situation collectively in October.

6. I am copying this minute to Paul Channon, Nigel Lawson, George Younger, and Sir Robert Armstrong.

Younger
Lynda

MRS LYNDA CHALKER

FOREIGN AND COMMONWEALTH OFFICE

29 July 1986

CONFIDENTIAL



END POL
STRATEGIC
MINERALS
8/79

SECRET



SLHANA
celc

10 DOWNING STREET

28 July 1986

From the Private Secretary

STOCKPILE OF STRATEGIC MINERALS

The Prime Minister has seen the Trade and Industry Secretary's minute of 21 July about policy on the strategic mineral stockpile. She has also seen the comments by the Chief Secretary and the Defence Secretary.

BF || The Prime Minister takes the view that we should certainly maintain at least a 3-6 month stockpile of the more vulnerable materials. But, like the Defence Secretary, she is not convinced that this is necessarily enough. She would like further consideration to be given by officials to the size of the stockpile and to the list of materials which should be part of it. The table attached to your Secretary of State's minute does not spell out what are the alternative sources of supply for the minerals in question. But in a number of cases, it is likely that the only alternative sources are the Soviet Union or other East bloc countries. The Prime Minister would want to be assured that this had been taken into account in deciding whether the minerals in question should be retained in the stockpile.

I am copying this letter to Tony Galsworthy (Foreign and Commonwealth Office), Jill Rutter (Chief Secretary's Office), John Howe (Ministry of Defence) and Michael Stark (Cabinet Office).

C D POWELL

John Mogg, Esq.,
Department of Trade and Industry

SECRET

PRIME MINISTER

STOCKPILE OF STRATEGIC MINERALS

The Trade and Industry Secretary has looked again at policy on disposal of the strategic mineral stockpile.

He concludes that:

- the Government should maintain a stockpile of 3-6 months supply of the more vulnerable materials (chrome and vanadium compounds and manganese metal);
- user companies should be told to increase their own stocks of less vulnerable materials or seek alternative sources of supply.

This would have financial costs because it represents a partial reversal of earlier disposal policy. It is too early to say whether these can be met by savings in the DTI budget.

The Chief Secretary is broadly content, subject to detailed consideration.

The Defence Secretary feels, however, that MOD have not been properly consulted. He wants collective discussion of whether 3-6 months supply is an adequate stockpile of the more vulnerable minerals, and of which minerals can be disposed of without risk.

I suggest you say that you agree in principle to at least a 3-6 month stockpile of vulnerable materials, with departments to consult rapidly on whether this is really adequate and on which materials are vulnerable.

Agree?

Yes not

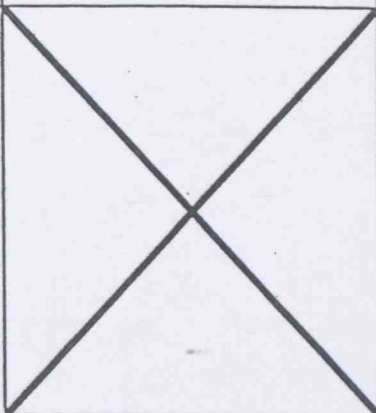
C.D.P.

Charles Powell

25 July 1986

DG2AIS

SECRET

DEPARTMENT/SERIES <i>PREM 19</i> PIECE/ITEM <i>3039</i> (one piece/item number)	Date and sign
Extract details: <i>Defence Secretary to PM dated 25 July 1986</i>	
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Use the card for one piece or for each extract removed from a different place within a piece.

Enter the department and series,
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Enter the piece and item references, .
eg. 28, 1079, 84/1, 107/3

Enter extract details if it is an extract rather than a whole piece.

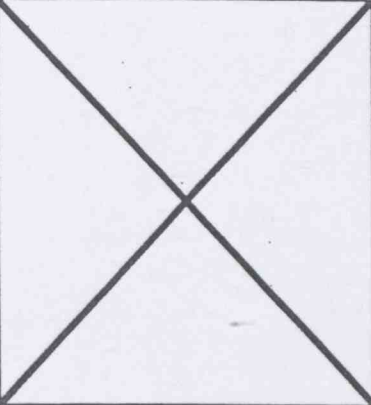
This should be an indication of what the extract is,

eg. Folio 28, Indictment 840079, E107, Letter dated 22/11/1995.

Do not enter details of why the extract is sensitive.

If closed under the FOI Act, enter the FOI exemption numbers applying to the closure, eg. 27(1), 40(2).

Sign and date next to the reason why the record is not available to the public ie. Closed under FOI exemption; Retained under section 3(4) of the Public Records Act 1958; Temporarily retained; Missing at transfer or Number not used.

DEPARTMENT/SERIES <i>PREM 19</i> PIECE/ITEM <i>3039</i> (one piece/item number)	Date and sign
Extract details: <i>Macgregor to PM dated 24 July 1986</i>	
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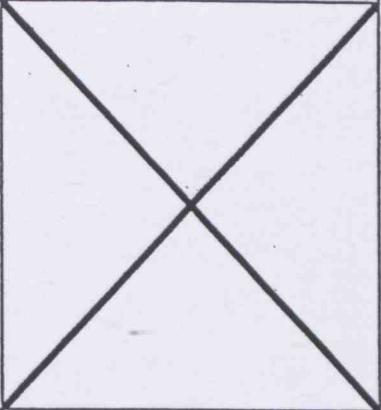
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DEPARTMENT/SERIES <i>PREM 19</i> PIECE/ITEM <i>3039</i> (one piece/item number)	Date and sign
Extract details: <i>Channon to PM dated 21 July 1986</i> <i>with attachment</i>	
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Instructions for completion of Dummy Card

Use black or blue pen to complete form.

Use the card for one piece or for each extract removed from a different place within a piece.

Enter the department and series,
eg. HO 405, J 82.

Enter the piece and item references, .
eg. 28, 1079, 84/1, 107/3

Enter extract details if it is an extract rather than a whole piece.

This should be an indication of what the extract is,

eg. Folio 28, Indictment 840079, E107, Letter dated 22/11/1995.

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If closed under the FOI Act, enter the FOI exemption numbers applying to the closure, eg. 27(1), 40(2).

Sign and date next to the reason why the record is not available to the public ie. Closed under FOI exemption; Retained under section 3(4) of the Public Records Act 1958; Temporarily retained; Missing at transfer or Number not used.

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Defence



JF2765

PS/ Secretary of State for Industry

DEPARTMENT OF INDUSTRY
ASHDOWN HOUSE
123 VICTORIA STREET
LONDON SW1E 6RB

TELEPHONE DIRECT LINE 01-212 3301
SWITCHBOARD 01-212 7676

24 February 1983

Michael Scholar Esq
Private Secretary to the
Prime Minister
10 Downing Street
LONDON
SW1

MS

Prime Minister

You asked me to

*pursue this. I think it
is a good story.*

M/S 24/2

Dear Michael,

STOCKPILE OF STRATEGIC MINERALS

Thank you for your letter of 16 February about the appointment of Brandeis Intsel Limited to act as purchasing manager for the stockpile. My Secretary of State has asked me to explain the background which led to the appointment of a foreign-owned company to undertake this work.

2 We first considered whether the British Steel Corporation, who have a major interest in many of the materials, should purchase and store the stockpile. The Secretary of State decided against this as it would become known that the BSC was involved and there would be objections from other consumers who would see the BSC as making additional purchases in competition with themselves. He also had reservations about the BSC's expertise, particularly for minerals they do not use themselves.

3 After consultations with the Bank of England, he therefore decided that a major international trader experienced in the specialised markets concerned would be better placed to act quickly and discreetly to make the necessary purchases within this financial year - most of the funds available at present have to be spent in 1982/3.

4 None of the major British-based international trading companies are in fact British owned. The Department sought quotations from the following three traders on the recommendation of the Chairman of the London Metal Exchange:

- (1) Derby & Co, a subsidiary of Philipp Bros, an American company



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- (2) Amalgamated Metals Corporation, who are German-owned
- (3) Brandeis Intsel, bought in 1981 from Warburgs by the French company Pechiney which was nationalised in 1982.

5 The quotation from Brandeis Intsel Limited was by far the cheapest. Brandeis Intsel (whose predecessor was Brandeis Goldschmidt) is a metal trading company well established in the UK, and we understand that it operates at arms length from the French parent company. One of its associates is a ring dealing member of the London Metal Exchange, and subject to the high LME financial and professional standards.

6 The Secretary of State considered carefully the fact that Brandeis Intsel are now owned ultimately by the French Government and the possibility that the French Government might seek to influence them. However he concluded that there was no reason to suppose this would happen. The French have no clear interest in preventing this country from building a stockpile of strategic minerals and the materials are unlikely to come from France.

7 In these circumstances he appointed Brandeis Intsel as purchasing manager for the stockpile. At the same time he appointed an Advisory Committee whose membership includes representatives of the main consumers of the materials being stockpiled. The role of this Committee is to advise on all relevant matters including prices and to monitor the performance of both Brandeis Intsel Limited and Sheffield Forgemasters Limited whom the Secretary of State has appointed as the storage manager of the stockpile.

8 Under the terms of the contract with Brandeis, which is designed to run for 3 years, it would be possible to terminate the contract by giving not less than 3 months notice to the company. The Secretary of State can also terminate the agreement without notice in certain circumstances if, for instance, they have failed in the proper discharge of their duties or are in financial difficulties. The latter provision does not at present apply. The Secretary of State would be reluctant to give notice under the general power of termination; there would appear to be no good reason to do so other than the fact that Brandeis Intsel is foreign owned. In any case, there is no British owned alternative which could satisfactorily meet our requirements.

Yours sincerely,

Jonathan Spencer

J P SPENCER
Private Secretary

Defera Shitipil of Shitipil natural Feb 83



24 FEB 1983

CONFIDENTIAL



DEFENCE

10 DOWNING STREET

From the Private Secretary

16 February 1983

STOCKPILE OF STRATEGIC MATERIALS

The Prime Minister was grateful for the briefing which your Department provided for Question time yesterday on the stockpile of strategic materials.

1 She remains unconvinced, however, that it is right that a foreign-owned company should be acting as purchasing agent for the Government in a transaction of this kind. The Prime Minister has asked me to take up the matter with you, and I would be accordingly grateful if you could let me know whether it is now open to you to appoint an alternative agent.

24/2/83.

M. C. SCHOLAR

Jonathan Spencer, Esq.,
Department of Industry.

NR

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STOCKPILE OF STRATEGIC MATERIALS

Use of French Owned Company to make purchases

French Co.
to purchase
stockpile

A large metal trader represented in London was in our view in the best position to buy metals economically. Such companies are all international and none are British owned. They are used to acting on behalf of clients in many countries and I am satisfied that they can handle national purchases competently and reliably.

15 February 1983



STOCKPILE OF STRATEGIC MATERIALS

PRIME MINISTER'S QUESTIONS - 15 FEBRUARY 1983

POSSIBLE SUPPLEMENTARIES

1 USE OF FRENCH-OWNED COMPANY (PECHINEY) TO MAKE PURCHASES

The metals industry is an international one. I am satisfied that an international trading company can handle national purchases competently and that our purchases are in the hands of a reliable company. Details of the stockpile and arrangements for acquiring and storing it are confidential.

2 SNUB TO THE BSC

A large trader, rather than a consumer, seemed the most appropriate purchasing agent.

3 DECISION TO ESTABLISH A STOCKPILE

I would refer the Hon Member to the reply given by my Hon Friend the Parliamentary Under Secretary of State for Industry to my Hon Friend the member for Bedford yesterday.

4 STOCKPILES IN OTHER COUNTRIES

The US and France already have stockpiles of strategic minerals; details of the French stockpile are confidential. Japan is planning to establish a stockpile. The Federal Republic of Germany decided against establishing a national stockpile in 1979.



UK STOCKPILING

BACKGROUND NOTE

Ministers decided last September in response to representations from industry to establish a stockpile of 6 months supply of certain minerals obtained largely from Southern Africa as a safeguard against supply disruption. The minerals concerned are those considered to be both most vulnerable to interruption of supply and critical to the economy ie essential to maintaining industrial production.

£35 million is available in this financial year for the relevant purchases.

2 Following this decision the Department held confidential discussions with BSC which was a possible candidate to act as both purchasing agent and storage manager for the stockpile. Ministers subsequently decided that a major international metal trader would be more knowledgeable and in a better position to act as purchaser than a consumer; no consumer, including the BSC, covers the full range of materials to be stockpiled.

3 On the recommendation of Mr Philip Smith, the Chairman of the London Metal Exchange, the Department approached three such metal traders:

- i Derby and Co owned by Philipp Brothers (US);
the Bank of England suggested Philipp Brothers.
- ii Brandeis Intsel Limited owned by Pechiney a French,
now nationalised, company.
- iii Amalgamated Metal Corporation.

4 There are no wholly UK owned metal traders and the charges for the purchasing operation and subsequent turnover of the stock proposed by Brandeis Intsel Limited were significantly lower than those proposed by the other traders approached.

5 The Secretary of State therefore appointed Brandeis Intsel Limited, as the Government's purchasing agent for the minerals and the main purchases are now approaching completion.

6 It is intended that the materials will be stored at the Sheffield premises of Sheffield Forgemasters who will be responsible to the Secretary of State for the maintenance and security of the stockpile. The contract with Sheffield Forgemasters is expected to be signed this week.

7 After informed leaks in the press following Brandeis Intsel Limited's inquiries for materials and purchases the Government's decision was announced without details on 14 February in reply to a question from Mr Trevor Skeet MP who is Chairman of the All Party Minerals Group of MPs (copy attached)

...



The BSC are unhappy about the decision to appoint a metal trader rather than themselves as a major consumer and this was mentioned in the article in the Financial times on 14 February attached. The BSC are however seeking the contract with Brandeis Intsel for the conversion of manganese ore into ferro-manganese.

Strategic stockpile of key raw materials 'set up by UK'

BY JOHN EDWARDS, COMMODITIES EDITOR

MONDAY 14 FEBRUARY

THE GOVERNMENT has secretly started buying key metals and minerals to create a strategic stockpile which would make Britain less vulnerable to supply shortages, according to trade sources in London.

Several South African companies have been approached with orders for chrome, manganese and other materials which are vital to industry or used in the manufacture of armaments.

The initial orders are thought to be worth between £5m and £10m, but building a reasonable stockpile would cost much more.

The idea of creating a stockpile of vital raw materials has been debated for some time. A report by a House of Lords select committee last October cited several metals and minerals whose main source of supply is either Communist bloc countries, developing nations, or South Africa—the leading producer of chrome, manganese and platinum.

It is believed that the Falklands War persuaded the Government to go ahead with the idea instead of waiting for the EEC to develop a common policy.

The Department of Industry has confirmed that the pos-

sibility of creating a strategic materials stockpile is being studied, but says it would require co-ordination with other ministries such as Treasury and Defence.

However an official announcement may come this week in answer to a written question on the subject tabled by Mr Trevor Skeet, Conservative MP for Bedford.

The secrecy surrounding the buying programme — thought to be nearly complete, — was to prevent prices being pushed up by the knowledge that the British Government was in the market.

Prices of most metals and

minerals have been low for some years because of depressed demand, but they have started rising recently on hopes of an industrial recovery. The Government's buying has therefore come just in time.

However there is considerable unrest in the trade about the way the programme has been organised. It is understood that the British Steel Corporation, which will be the main user of the materials bought, is upset by the snub implied by the Government's decision to appoint a French-owned company, Brandeis Instel, to co-ordinate the buying programme.

Brandeis Instel is an old-established London-based metals trading company which was taken over by Pechiney Ugihe, Kulhmann, the nationalised French group, last year when S. G. Warburg, the merchant bankers, decided to sell out because of the growing financial commitment required.

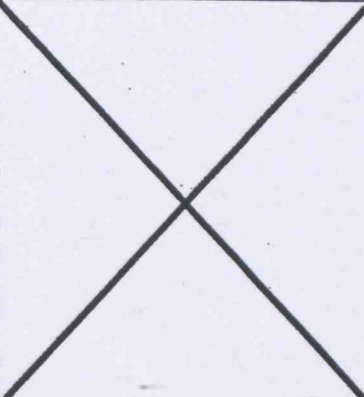
Other London traders are also astonished that the subsidiary of a nationalised French group should be employed by the UK Government for such a sensitive role.

France has a strategic minerals set-up linked with its ownership of mining companies.

An attempt by West Germany to increase its stocks to above-normal levels by giving low-cost loans to private companies failed to attract much support.

Japan has stockpiled several key materials and is planning to buy more.

The Reagan Administration is pledged to increase the already large U.S. strategic stockpile so that it will last out a three-year conventional war. The U.S. bought 52m lb of cobalt in 1981 — its first purchase for the stockpile since 1958 — and has subsequently bought small quantities of other metals and minerals.

DEPARTMENT/SERIES <i>PREM 19</i> PIECE/ITEM <i>3039</i> (one piece/item number)	Date and sign
Extract details: <i>Ellison to Alexander dated 8 December 1980</i>	
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From the
Minister of State

Lord Trenchard

DEPARTMENT OF INDUSTRY
ASHDOWN HOUSE
123 VICTORIA STREET
LONDON SW1E 6RB

TELEPHONE DIRECT LINE 01-212 7691
SWITCHBOARD 01-212 7676

Sir Ian Gilmour
Lord Privy Seal
Foreign and Commonwealth Office
Downing Street West
London SW1

2 May 1980

MBM

2
6/5

Dear Sir

PROBLEMS ASSOCIATED WITH UK DEPENDENCE ON IMPORTED MINERALS

Thank you for your letter of 11 April in reply to mine of 26 March on this subject. I have also seen the responses from John Biffen, Michael Heseltine and the CPRS.

As you say, now does seem as good a time as any to begin discussions with industry aimed at establishing both the desirability and the practicability of measures safeguarding UK mineral supply, and there is full agreement on this. Given this reaction, and taking note of the Treasury reservations about the financial implications of measures that might need to be adopted, there seems no need for further discussion of the principle of the exercise or of the kind of detailed guidelines suggested by the CPRS.

I am therefore arranging for a written PQ to be answered in the terms agreed, announcing that the exploratory exercise is commencing, and for officials to plan and carry out the work on the lines already agreed, including the involvement of the CPRS. Our press office here will co-ordinate briefing to deal with enquiries that are bound to arise both at the time of the announcement and during the exercise itself.

I am sending copies of this letter to the Prime Minister, Members of E(EA) and the Secretary of State for Defence, to Sir Robert Armstrong and to Downey at the CPRS.

*Yours
Lord Trenchard*

LORD TRENCHARD

121 000 7
BIRN 6
-6 MAY 1960



Treasury Chambers, Parliament Street, SW1P 3AG

The Viscount Trenchard MP
Minister of State
Department of Industry
Ashdown House
123 Victoria Street
London SW1

Ind PDI 2
Pratt Minister

*Sir Keith is planning
to announce consultations
on this - maybe Treasury
are not prepared to
provide any extra
money.*

12.
31 March 1980 *1/4*

Dear Tim,

PROBLEMS ASSOCIATED WITH UK DEPENDENCE ON IMPORTED MINERALS

I have seen your letter of 26 March to the Lord Privy Seal and also Mr Downey's letter of 28 March in which he gives the CPRS's comments.

We agreed last November that no indications should be given in the consultations of any public expenditure commitment. There is, however, a further reservation which I want to make now. My officials tell me that on a very provisional basis your department thinks that there could be public expenditure costs, possibly starting in 1981-82, rising to around £15-25m a year if we were to agree to help with interest payments and with diversification costs; and that, alternatively, the costs might be of the order of £50-100m over 3-5 years if support took the form of a direct contribution to financing say, half the costs of purchasing key minerals for a stockpile. I understand, furthermore, that your department would not be willing to adjust priorities within your present public expenditure ceilings to make room for any such expenditure. If this is correct I want to make clear now that I would be firmly against any additional public expenditure allocation to your department to finance these measures and that I see no point in wasting time discussing them in the course of the coming consultations. If on the other hand, your department were willing to accommodate any such proposals I would not have the same fundamental objection to considering them although we would still want to look at them on their merits.

The CPRS has raised the question of tax concessions. I would not be willing to look at tax concessions which were put forward simply as alternatives to direct public expenditure contributions and as a means of avoiding the objections which I have

noted in my preceding paragraph. I would not, however, want to rule out at this stage the possibility of looking at some small change to the present arrangements if a convincing case were to emerge.

As you know, guarantees do not score as public expenditure, or as a cost to the PSBR, unless they are called. I would not rule them out if a convincing case were made that they were necessary to help private sector industry to raise the money they might need either for stockpiling or for diversification. But if any case were to emerge for such measures we would need very clear advice on the risks that the guarantees might be called and on the amounts at stake.

I agree that if the Government were to help in any way with the financing of a privately owned strategic stockpile it ought, in return, to have some say in the use of the stockpile and some stake in the financial gains which could arise from it.

I would have been happier if, in your explanation of the form of the consultations, you had been able to give some indication of your own thinking on these questions. But, provided you accept the points I make above, and subject to any other points which colleagues might make, I do not want to press for a further discussion at this stage.

I am sending copies of this letter to the Prime Minister, members of E(EA), the Lord Privy Seal, the Secretary of State for Defence, and to Sir Robert Armstrong and Mr G S Downey.

Yours
John Biffen

JOHN BIFFEN

1 - APR 1960





CABINET OFFICE
Central Policy Review Staff

With the compliments of

G. S. DOWNEY

70 Whitehall, London SW1A 2AS

Telephone 01-930 5422



7798
01-233 3000

Qc.02416

CONFIDENTIAL

End Pat
CENTRAL POLICY REVIEW STAFF
CABINET OFFICE
70 WHITEHALL LONDON
SW1A 2AS

28 March 1980

Dear Minister of State,

Problems Associated with UK Dependence on
Imported Minerals

In view of his departure today, Sir Kenneth Berrill has asked me to respond to your letter of 26 March to the Lord Privy Seal.

2. At the meeting of E(EA) on 15 November it was suggested that, when foreign policy considerations permitted, the CPRS should undertake the discussions, in order to distance the Government from any implied commitment. However, we see the force of your proposal that the exercise should form part of the Department of Industry's continuing dialogue with industry on raw material problems and would, of course, be very ready to associate ourselves with discussions conducted by your sponsor branches.

3. We welcome the suggestion that an interim report on stockpiling should be "fast-streamed", since this is likely to be the only measure which could provide additional protection in the short term. Before launching the discussions, however, Ministers may also like to consider the following suggestions:-

- (1) Any notion of a Government-owned stockpile should be ruled out, if only on grounds of cost.
- (2) The main purpose of the discussions should be to assess the vulnerability of industry to shortages of South African minerals. We should want to find out what levels of stocks were currently held; what would be required to induce the private sector to increase those stocks; what opportunities there were for substitution etc.
- (3) Although there can be no question of a commitment to Government involvement, the consultations are likely to be more useful if we knew whether Ministers would be prepared to consider any of the following

- guarantees against loss on stocks additional to normal commercial needs

The Viscount Trenchard MC
Minister of State
Department of Industry
Ashdown House
123 Victoria Street
London SW1

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- interest relief grants or other form of Government subsidy.
If so, of what order of magnitude? And could it be found from existing programmes?

- tax concessions eg through extended stock relief.

- (4) If the Government were to contribute to a privately-owned strategic stockpile, it would presumably wish to retain some control over its deployment and rate of use in the event of shortages.

In our view it would be helpful if Ministers could consider these points before the discussions were started. Alternatively, if they feel that some further information is needed before they take even a provisional view, might there be a case for a more limited exercise in the first instance? For example the first round of discussions might be confined to the public sector - notably the Bank of England, the British Steel Corporation and Rolls Royce, where the financial and confidentiality implications might be more easily contained.

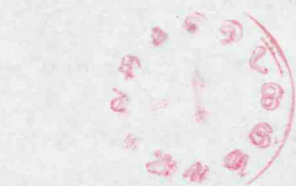
4. I am sending copies of this letter to the recipients of yours.

Yours sincerely,

Gordon Downey

G S DOWNEY

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05-11-2000

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From the
Minister of State
Lord Trenchard

DEPARTMENT OF INDUSTRY
ASHDOWN HOUSE
123 VICTORIA STREET
LONDON SW1E 6RB

TELEPHONE DIRECT LINE 01-212 7691
SWITCHBOARD 01-212 7676

cc A Inghid
WJL
M. Alexander
RBOM yet

cc M. Lyle

12
26/3

Sir Ian Gilmour MP
Lord Privy Seal
Foreign and Commonwealth Office
Downing Street West
London SW1

26 March 1980

Dear Lord Privy Seal

PROBLEMS ASSOCIATED WITH UK DEPENDENCE ON IMPORTED MINERALS

The 15 November meeting of E(EA) agreed with the proposal in E(EA)(79)61 that consultations with industry should take place to explore, without commitment to Government action and in particular to Government finance, the desirability and practicability of measures designed to reduce the risks of our heavy dependence on Southern Africa for a number of vital minerals. However, it also accepted your advice that these consultations should be postponed in view of possible implications for Southern African policies, though the Committee hoped that the delay would be as short as possible.

The Prime Minister subsequently endorsed these conclusions, noting that further proposals would be circulated on the form and timing of the consultations. I am now writing to seek your agreement to the discussions being started, to the outline of the form that we propose they should take and to the text of a public announcement. It is felt that some announcement to contain speculation is necessary as it is bound to become known that discussions are going on.

Timing and Form of the Announcement

E(EA) agreed that a low-key announcement should be made as soon as foreign policy considerations permitted. Now that the Rhodesian elections have taken place the way seems clear for a statement on the lines of the draft annexed to this letter, which could be made in answer to an arranged PQ. No formal Press Statement seems necessary, though Press Offices would need briefing to deal with any enquiries.



Form of the Consultations

We propose that the discussions should be undertaken mainly by the branches within the Department of Industry having sponsorship responsibility for the particular industries concerned, and that as a general rule normal contacts in trade associations and firms should be consulted. This will tend to set the exercise in the context of the continuing dialogue with industry on raw materials supply problems that has existed over many years. It was suggested on 15 November that CPRS might be associated with the consultation.

We need to be flexible about the organisations we consult (as well as the questions we ask) taking into account information received and views expressed as the exercise proceeds. It seems clear, however, that for the whole exercise 50 or so individual companies and trade associations may be involved in 6 main areas: mining companies, processors, fabricators, traders/purchasing organisations, consumers (end-users) and financing institutions. Not all of these will necessarily be involved in all aspects of the study. A distinction was drawn in the earlier papers between stockpiling - which offers a short-term insurance against the risk of supply disruption - and longer-term insurance (such as overseas exploration incentives and guarantee facilities for mine development) to promote this diversification of supply sources. This distinction extends to some extent into the pattern of discussions with industry.

The firms concerned with stockpiling - mainly the metal processors, fabricators, traders and end-users - are in general different from those concerned with source diversification - mostly mining companies and finance houses. Thus, although there are clearly presentational advantages in treating the exercise as a whole, it will also be possible to bear in mind the Committee's feeling that stockpiling was the aspect of the exercise which should be given priority. This can be done and an interim report on stockpiling prepared for early consideration - say by July; but it is important to recognise that the consultations about stockpiling will necessarily be the most detailed and difficult, even though we are looking towards a scheme in which industry itself plays the major role, and that they involve the larger number of firms and organisations.

I am copying this letter to the Prime Minister, members of E(EA) and the Secretary of State for Defence, and to Sir Kenneth Berrill and Sir Robert Armstrong.

Yours sincerely

P E Musgrave

PP LORD TRENCHARD
(Approved by the Minister
and signed in his absence)



DRAFT PUBLIC STATEMENT

CONSULTATIONS ABOUT MINERAL SUPPLIES

The Government is to consult industrial, mining and financial interests about the prospects for the supply of essential minerals for which UK industry is heavily dependent on overseas sources, and the desirability of measures to improve continuity and security of supplies in the short and long term.



26 MAR 1960

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E(EA) read PSI 859

cc: Mr. Duguid



10 DOWNING STREET

From the Private Secretary

22 November 1979

+ C.O.
MOD
FCO

Emp.
Env.
Scotland
Wales
Trade
Energy
Chief Sec.

PROBLEMS ASSOCIATED WITH UK DEPENDENCE ON IMPORTED MINERALS

The Prime Minister was grateful for your Secretary of State's minute of 19 November reporting the E(EA) discussion on the above subject. She is content that your Department and the CPRS should now be asked to set in hand preparations for consultations about possible ways of reducing the problems associated with the UK's dependence on imported minerals, though she has emphasised what the Committee itself decided - that there must be no indication of any public expenditure commitment. The Prime Minister has noted that further proposals will be circulated as to the exact form and timing of the consultations.

I am sending copies of this letter to the Private Secretaries to the members of E(EA) Committee, to Paul Lever (FCO), Brian Norbury (MOD) and to Martin Vile (Cabinet Office).

T. P. LANKESTER

Ian Ellison, Esq.,
Department of Industry.

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VS

cc Andrew Duguid

Prime Minister



CONFIDENTIAL

Ann to proposals
in para 8?

PRIME MINISTER

Yes
Expedite conversion?
not w/h

PROBLEMS ASSOCIATED WITH UK DEPENDENCE ON IMPORTED MINERALS

1 I wrote to colleagues on 13 August, about risks of this country's dependence on imports for a handful of essential non-fuel minerals. I proposed work on a minerals policy based on maximisation of indigenous resources; reclamation and recycling; substitution of materials; diversification of supply sources; and stockpiling.

2 The Chief Secretary suggested collective discussion. Your private secretary wrote to mine on 23 August recording your initial views, and on 29 August asking me to report back to you before any decisions were taken.

3 In correspondence there was general agreement on the problems but doubts over action. I circulated revised proposals in E(EA)(79)61, which E(EA) considered at its meeting on 15 November.

4 In my new paper I proposed low-key consultations with industry and financial institutions - to increase our knowledge and without any commitment to action; and a low-key announcement of such consultations.

5 At E(EA) there was general support for the idea of consultations - especially about the only relatively short-term possibility,

/stockpiling ...

Para A



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2.

stockpiling - and some of our colleagues stressed the need for urgency. We considered, on the basis of what has followed similar announcements in other countries, and the absence of any apparent effect on prices of press discussion here, that an announcement that stockpiling was being examined was unlikely to push prices up. We would stress that we were in no way committing ourselves to action or public spending. It was suggested that the CPRS should conduct the consultations.

6 Ian Gilmour asked that any announcement should be delayed for two months to avoid any wrong assumption about Rhodesia or that we lacked confidence in the stability of South Africa, or that we were ready to join international action against South Africa which might put our mineral supplies at risk.

7 E(EA) accepted that on both timing and terms a draft announcement should be cleared with the Foreign and Commonwealth Secretary but hoped that the delay might be less than 2 months.

8 If you agree, the Department of Industry and the CPRS should now be asked to set in hand preparations for consultations on a no-commitment basis with industrial, financial and mining interests about possible ways of reducing the problems associated with the UK's dependence on imported minerals. I would circulate further proposals in due course as to the exact form of the consultations, and would consult you and the Foreign and

/ Commonwealth.....

CONFIDENTIAL



3.

Commonwealth Secretary about the form and timing of any announcement.

9 I am copying this minute to our colleagues on E(EA), the Foreign and Commonwealth Secretary, and the Secretary of State for Defence.

14

K J
19 November 1979

Department of Industry
Ashdown House
123 Victoria Street



9 NOV 1979





FCS/79/149

SECRETARY OF STATE FOR INDUSTRY

UK Dependence on Imported Minerals

1. Thank you for sending me a copy of your letter of 13 August to Geoffrey Howe and of the accompanying paper. I have seen the reply recording the Prime Minister's views and those from John Nott and John Biffen.
2. I share your concern about the potential risk to which we are exposed by our reliance on a limited number of suppliers, and would welcome a study of a minerals policy along the lines you suggest. You may wish to consider inviting the Assessments Staff to undertake a more detailed study of the potential risks to our mineral supplies (of the kind suggested by the Prime Minister), and my officials would be ready to contribute to such a study, particularly in so far as the risk of disruption of supplies from Southern Africa is concerned. The threat from this area arises not only from the possibility of UN sanctions or South African retaliation but also from a potential disruption to supplies through political and social unrest in the area, as paragraph 6 of your paper indicates.
3. I believe that a public statement of our intentions could be so timed and worded as to remove any serious risk (as the Prime Minister fears) of causing alarm or disrupting the mineral markets to our disadvantage. Recent articles in the press have suggested that a minerals policy would be generally welcomed: I have in mind particularly Paul Cheeseright's article in the Financial Times of 19 July. The fact that action has already been taken by the Americans, French, Germans, Japanese and others to stockpile materials suggests that there is a strong case for precautions and that it can be achieved without ill effects.
4. I believe therefore that if the further studies prove the case for the sort of measures proposed in your paper, some form of public statement to prevent uninformed speculation will be

/ desirable

Page A

Prime Minister

To note

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RWB

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desirable before approaches are made to industry. Both the text and timing of such an announcement will be important since we must avoid the implication that the exercise is intended solely to reduce our dependence on Southern Africa which could cast doubts on the credibility of our Rhodesian and Namibian policies and our wish to encourage peaceful change in South Africa by building on our existing economic links, as well as introducing a negative factor into our relations with South Africa.

5. If the studies we undertake satisfy the Prime Minister's concerns, it seems to me there would be some merit in launching pilot schemes in certain areas (particularly in those such as diversification which take a long time to produce results). This would serve to reduce the initial outlay while allowing us to assess industry's response to the measures.

6. We are already experiencing, for example in relation to Namibia, the constraints which dependence on one or a few sources of raw materials can impose on our freedom of manoeuvre. Such constraints can arise from the implicit threat of an interruption to our supplies without the need for specific action against us. Diversification of sources in the longer term and stockpiling as a shorter term measure would reduce those constraints by making the threat less credible, and thus give us more freedom of manoeuvre in our international relations. I should therefore welcome early action on stockpiling, even if this turns out to entail government expenditure of the order of that which will be involved in the French and German schemes. On the working of a stockpile, we should need to incorporate strict conditions (whether strategic or economic) for releases from and disposal of any stockpiles once they are created.

7. I am copying this letter to the recipients of yours.

C

(CARRINGTON)

Foreign and Commonwealth Office
11 September 1979

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MT SEP 1979

CONFIDENTIAL



CABINET OFFICE
Central Policy Review Staff

70 Whitehall, London SW1A 2AS Telephone 01-233 7765

From: Sir Kenneth Berrill KCB

Qa 04253

7 September 1979

Dear Secretary of State

Problems Associated with UK Dependence on Imported Minerals

1. You were kind enough to send me a copy of your letter of 13 August to the Chancellor of the Exchequer. Absence on leave provides the excuse for delaying my reply but it has also given me the opportunity to see the response from other Ministers, though I have not yet seen the reaction of the Foreign and Commonwealth Secretary.
2. We are all very aware that security of mineral supplies is not a new worry either here in Whitehall or in other industrial countries. Those worries were revived after 1973/4 with the fear that OPEC type interruptions to oil supplies might spread to other raw materials and have been sharpened recently by fears of what could happen to our mineral supplies from the African continent - in certain circumstances from South Africa and on other scenarios, from Africa north of the Zambesi. The fact that Whitehall has these worries is known outside (vide the article by Paul Cheeseright in the Financial Times on July 19th). It has also been noted that the authorities in France and Germany are similarly concerned and are actively re-considering their policy on stockpiles. (See for example the report in the Financial Times from Bonn by Jonathan Carr on the same day as the Cheeseright article).
3. So I do not think we need be too concerned lest it be known that we are considering our policy on stockpiles. Knowledge that this was so in the UK would be unlikely to push up prices - any more than it has in the case of France or Germany. But apart from any possible effect on raw material prices Ministers are rightly worried at the PSBR effects of stockpiling which would certainly be considerable if the increased stock was to be funded entirely by the Exchequer. However this may not be the best route. Encouraging/helping industrial companies to hold larger stocks, if necessary by borrowing from their banks, may well cost the Exchequer comparatively little.
4. It may well be argued that if objectively the risks require higher stocks companies know their own position best and will provide them without either help or encouragement.

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5. But the cost to a company of a shortfall on raw mineral supplies may not be identical to the cost to the country. It may similarly be argued that if the Banks lend money to allow higher raw material stocks to be held they will have to lend less for other purposes, and again it is not up to the Government to try to know better than the market. Again, the market's criteria may, quite justifiably, not be the same as the Government's.
6. There are many unknowns in all this, but I doubt if further work by officials within Whitehall will be very productive. To have a better chance of evaluating the case for the Government trying to encourage/help the holding of large stocks of raw materials by the private sector we need to have discussions with the larger users and the banks on what might be involved in terms of volume and cost.
7. I would hope that Ministers might authorise discussions between your officials (and those of the Treasury), industrial users and banks. This could be made public in a low key way as exploratory talks. As I say, the financial world is aware of our worries and will not be surprised and, as in the case of the French and German discussions, it is unlikely to have any appreciable effect on the market. Indeed if it could be said from the outset that the Government was most unlikely to go for public sector stockpiles the effect of such a statement might be helpful.
8. I am sending a copy of this letter to the recipients of yours.

Yours sincerely,

Kenneth Berrill

KENNETH BERRILL

Sir Keith Joseph
Secretary of State
Department of Industry
Ashdown House
123 Victoria Street
London
SW1

UK mineral supplies: the threats and the remedies

BY PAUL CHEESERIGHT

QUIETLY but menacingly, a severe problem of raw materials supply is brewing for the British Government and industry. Some palliatives are at hand: Sir Keith Joseph, the Industry Secretary, can, providing he so desires, summon up the results of five years of official preparatory work for a national minerals policy.

The qualification is apposite, because successive Governments have been inconsistent in their attitude to mineral supplies. They have accepted the need to secure long-term supplies, for example, by championing the role of the companies in sea-bed mining at the United Nations Law of the Sea Conference, and by taking part in EEC discussions about the protection of investments in the developing countries. But they have not acted specifically to stimulate mineral production linked to future British needs.

Colonial backlog

To be sure, there has been little incentive to give such moves priority. Mineral consumption has declined slightly, although imports did cost £2.75bn last year, and until recently there was a readiness to assume that simply because London was a commodity trading centre, supplies were assured. There has been little attempt to broaden the source of supplies away from traditional producers with whom links were forged in colonial times.

There are two main reasons why this relaxed approach is no longer adequate. The first is the downturn in investment in new mining capacity: this trend started before, but has been exacerbated by the post-1974 recession, which both

raised costs and lowered revenues. Indeed, the mining companies, on the strength of figures adopted by the European Commission, have calculated that, simply to maintain supplies of the main non-ferrous metals to Europe over the next decade, there needs to be an average investment of \$2.4bn a year. But in the 1960s and early 1970s, investment averaged only about \$400m a year.

The second reason is that instability, or the threat of it, in some of the main supplying areas—central and southern Africa for example—could interrupt the flow of materials. Such breaks, even those not directly felt by British consumers, tend to push up prices.

Assuming growth resumes in the international economy, the possibility emerges of a shortage of supplies in the 1980s, because of the lack of investment, while, in the background, lurks the danger of producers failing to maintain supplies, because of, say, disorder in South Africa, shortage of technical personnel in Zambia, or strikes in Bolivia.

Britain, whose importance as a minerals producer has long since disappeared, would be extremely exposed. The greater part of its mineral needs have to be imported.

The antidote available to Sir Keith has five parts:

- Diversification of sources of supplies;
- Formation of a minerals stockpile for a few key materials most at risk;
- Maximisation of domestic resources;
- Recycling used materials;
- Search for substitutes.

The two elements of most immediate significance are diversification and stockpiling. Substitution and recycling are at this stage a matter of stimulating research in the knowledge that fruitful results would only be applied under

IMPORTS AND CONSUMPTION			
UK		EEC	
Imports as percentage of consumption	Consumption (tonnes)	Imports as percentage of consumption	Consumption (tonnes)
Copper	82	81	2,105,000
Lead	46	53	1,263,000
Nickel	100	100	124,800
Tin	45	87	57,100
Zinc	100	68	1,208,000
Iron ore	89	79	90,194,000
Manganese	100	100	2,760,000
Chromium	100	100	620,000
Cobalt	100	100	10,000
Molybdenum	100	100	27,500
Platinum Gp	100	100	18.6
Tungsten	99.5	99	10,000
Vanadium	100	99	7,500

Source: British Foreign Policy to 1985, Non Fuel Minerals and Foreign Policy, Data Base: Royal Institute of International Affairs, 1977.

strong commercial pressure. The development of domestic resources is likely in the foreseeable future to have only a marginal impact, except perhaps in the case of tungsten provided the more optimistic hopes of the Hemerdon Ball deposit near Plymouth are realised.

The purpose of a stockpile would be to build up enough materials to tide industry over any interruptions of supply. Thus a judgment has to be made of where the breaks are most likely to occur.

It is accepted that in all likelihood the most vulnerable region is southern and central Africa. Hence the West German concern to accumulate stocks of chrome, cobalt, manganese, platinum and vanadium, all minerals that come largely from Africa. Some of these minerals are already in short supply and it seems unlikely that a stockpile could be formed without either the co-operation of the producers whose future reliability is being called into question or greatly pushing up prices.

Stockpiling becomes less necessary if suppliers are geographically so diversified that the loss of one source may be covered by another.

It seems likely that a British diversification policy would follow roughly the German pattern of official aids for exploration granted against an option on German consumers having first access to any discovery. That is quite easy to execute: it is largely a question of deciding on how to apply the funds available.

Developing deposits

What is more complicated—and there is some evidence that Whitehall has not yet clearly defined its view—is devising a form of governmental support for the costly process of developing a deposit. The difficulty is to establish a system of loans and guarantees which at once give the developing companies the security to go ahead with a project and

hold down official expenditure. Had there been no election in May, some form of diversification policy would probably have been adopted by the end of the year, but it would have been vague on the question of financing project development.

Although the motive at the time of the Labour Government was the wish to reduce trading links with South Africa rather than any general philosophy about security of supplies, it could nevertheless have had the effect of drawing the major British mining houses back into the domestic industrial economy. Of all the mines controlled by the Rio Tinto-Zinc, Selection Trust and Consolidated Gold Fields groups, only three have direct long-term contractual links with British consumers. Two of these are for uranium: Rio Algom in Canada and Rossing in Namibia; one is for iron ore: Hamersley in Western Australia. These three operations are part of the RTZ group.

Security of future supplies implies that the number of such contracts would increase. Although the prices provided for

in such contracts may be expected to move in line with the world markets, access to the materials would be more assured.

But the line between producers and consumers has in recent years become blurred. Big consumers have been taking equity in and making finance available for mineral projects. Thus a diversification policy needs provision for the participation of companies normally thought of as consumers. An immediate difficulty arises. Apart from British Kynoch Metals, a joint company established by the main copper users—BICC, Delta and IMI—and British Steel Corporation, with its largescale iron ore imports, consumers are generally fragmented and certainly not organised for collective buying or mineral financing.

Indeed, much more is known about the problems of producers and the desires of the mining companies than the needs of the consumers. Sir Keith, then, faces a severe practical problem if he decides to follow up the work done under his predecessors on mineral policy. It is one thing to work for a secure flow of materials, but quite another to define their ultimate destination.

The expectations of the mining industry are pitched at a low level. There seems to be greater readiness to wait for an improvement in investment conditions—hence the support for the EEC's faltering moves towards investment protection policies in the developing countries—than to pin much hope on the British Government.

Welcome for incentives

Mining executives say that the industry would grab at any diversification and incentive scheme on the German pattern. But, as one said: "The Labour people may have shown some concern about raw materials, but they had this pathological fear of being seen to be helping multinationals. Now we have the Conservatives—they may be better disposed towards the multinationals but they are averse to getting the Government involved in business."

The Government's desire to reduce the level of state involvement in the economy would seem at first sight to work against the execution of an active diversification policy. But the mining groups exploit resources where they occur and sell on what is to them the most advantageous market. Concern about security of supplies thus implies making the British market more advantageous than it is. At the same time, the involvement of other Governments in the minerals sector is giving their respective companies a competitive edge. The provision of finance for a project, allied to a long-term supply contract, can reduce prices, as the Germans and Japanese have found.

Bonn's four-point programme to safeguard the future

BY JONATHAN CARR IN BONN

THE WEST GERMAN Government is intensifying its efforts to secure the country's raw material supplies by encouraging exploration to diversify sources, by helping reduce the risks involved in overseas mining, by boosting research, and most recently by pushing ahead with a stockpiling scheme.

The Germans are doing so in the knowledge that they are even more dependent than their European partners on imports of raw materials. Their action also reflects a growing recognition of political risks in southern Africa, from which West Germany draws no fewer than 48 different raw materials. In the case of 23 of them, 10 per cent or more of total German imports come from that source. The percentage is far

higher in the case of chrome and manganese, which are crucial to the steel and engineering industries in particular.

Over the past five years the Government has made available DM 381m (about £88m) in grants for exploration and prospecting by West German enterprises abroad. A further DM76m is earmarked for this year alone.

Whereas in 1971 only 20 exploration projects were being supported thus, today the figure is more than 50. The main emphasis lies in Canada, the U.S. and Australia—that is in developed countries where the political risks are held to be small. Among developing states, Brazil is of key interest to the West Germans, followed by some of the black African countries, South-East Asia, and the Pacific region.

At present Government grants are only available for the search for new sources of raw materials—not for the working of existing mines. But German mining companies involved overseas can call on a battery of official instruments designed to reduce their risks (though not to remove them altogether).

These instruments include government-backed insurance against political risks abroad and guarantees for investment projects specifically in the raw materials field. The increased tempo of foreign activity benefitting from such help can be seen in the following figures. Between 1960 and 1977 the Government approved guarantees amounting to DM 288m for 12 raw materials projects abroad—of which seven alone fell in the

period after 1972. The materials involved included chrome ore, copper, manganese and uranium—and the countries Brazil, Guinea, Indonesia, and Mauritania.

Beyond this, companies involved in such projects abroad may claim substantial tax benefits under two laws—one intended to encourage foreign investment in general, the other investment in developing countries in particular.

The Government has several specialised agencies which help it carry through its raw materials policies. One is the Deutsche Gesellschaft fuer Wirtschaftliche Zusammenarbeit, a wholly-owned government enterprise which can provide additional capital for direct investment by German companies in the developing world.

Mining companies can obtain special credit terms through the Kreditanstalt fuer Wiederaufbau—initially a postwar reconstruction agency, which now has a much wider role for projects both at home and abroad.

Last but not least is the Bundesanstalt fuer Geowissenschaften und Rohstoffe, based in Hanover. This federal agency not only carries out research programmes, for example into world supply and demand for particular raw materials, substitution processes and so on. It also sends its own teams abroad to carry out initial exploration—work which can be followed up by the private sector if promising deposits are found. The Economics Ministry provided nearly DM 40m for this agency alone last year.



7 SEP 1979

CONFIDENTIAL



10 DOWNING STREET

From the Private Secretary

29 August 1979

Problems associated with UK dependence on imported minerals

Bryan Cartledge has already conveyed the Prime Minister's initial comments on your Secretary of State's proposals on the above subject in his letter of 23 August. The Prime Minister has now seen the Chief Secretary's letter of 28 August, as well as Mr. Nott's letter of 28 August. She has noted Mr. Biffen's suggestion that there should be a Ministerial discussion, and would be grateful if your Secretary of State would report back to her before any decisions are taken.

I am sending copies of this letter to Stephen Wall (Foreign and Commonwealth Office), Tom Harris (Department of Trade), Bill Burroughs (Department of Energy), Roger Facer (Ministry of Defence), Garth Waters (Ministry of Agriculture, Fisheries and Food), Alistair Pirie (Chief Secretary's Office) and Martin Vile (Cabinet Office).

T. P. LANKESTER

Peter Mason, Esq.,
Department of Industry.

CONFIDENTIAL

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Prime Minister - To note 2
You were unhappy with
Sir K Joseph's proposals on
stock-piling (Flag A). So is
the Chief Secretary, who suggests
a Ministerial discussion.

Treasury Chambers, Parliament Street, SW1P 3AG

Sir Keith Joseph
Secretary of State
Department of Industry
Ashdown House
123 Victoria Street
LONDON
SW1

However, Mr Mott (Flag B)
thinks there is some merit
in the proposals. I will
make sure Ministers report
back to you.

28 August 1979

28/8

Dear Secretary of State

PROBLEMS ASSOCIATED WITH UK DEPENDENCE ON IMPORTED MINERALS

Thank you for your letter of 13 August to the Chancellor enclosing a paper by your officials about threats to the supply of raw materials to the UK.

This is clearly an issue to which we must give serious thought. My own view however is that an approach to industry and the banks and an announcement would be premature. Instead I think we should meet with our colleagues concerned to have initially a general discussion of these matters. That would enable us to decide how real we see the risks of disruptions to supplies; and whether, having regard to our other priorities and our general industrial policy which, if any of the risks we feel it essential to insure against. If after such a discussion we were to conclude that further action was needed I think it would be necessary for officials to do a good deal of further work to isolate the most acute threats; to assess the minimum counter-action that is necessary including the practicability of doing anything in the short term; and the cost of that action. We would then need to decide how such costs can be accommodated within our public expenditure and monetary objectives, having regard to competing claims. At this point I must say that I see no prospect to our being able to accommodate all of the wide-ranging initiatives you are contemplating. Although your ideas are still in the formative stage they all look potentially very expensive.

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I hope that on reflection you will agree that this is the best way to proceed. I take seriously the threats to our mineral supplies. But obviously the public expenditure implications weigh very heavily with me. Our proposals for reducing public expenditure are at the heart of our economic strategy and I could not agree to any proposal which might negate the savings I am seeking from you and of which your officials are now aware. For those reasons I think it would be highly undesirable to embark on open ended discussions, which would encourage pressure for us to take action, before we have looked at this problem more systematically and clarified our objectives.

I am copying this letter to the Prime Minister, Peter Carrington, John Nott, David Howell, Francis Pym, Peter Walker, Kenneth Berrill and Sir John Hunt.

yours sincerely

R. Walker

PP

JOHN BIFFEN

(Approved by the
Chief Secretary
and agreed in his
absence)

CONFIDENTIAL

28 AUG 1979





DEPARTMENT OF ENERGY
THAMES HOUSE SOUTH
MILLBANK
LONDON SW1P 4QJ

Direct Line 01-211 3290
Switchboard 01-211 3000

THE MINISTER OF STATE

Hamish Gray Esq MP

The Rt Hon Sir Geoffrey Howe QC MP
Chancellor of the Exchequer
H M Treasury
Whitehall
London SW1

28th August 1979

Dear Geoffrey,

PROBLEMS ASSOCIATED WITH UK DEPENDENCE ON IMPORTED MINERALS

Keith Joseph's letter to you of 13 August was kindly copied to David Howell here. In David's absence, I am writing to support the recommendations set out in the penultimate paragraph of Keith's letter.

This Department has some interest in these proposals. Several of the minerals involved, for example, are required for the production of special steels suitable for use in the energy industries. I welcome this initiative.

I am copying this letter to Keith, and to colleagues who received copies of his letter.

Yours truly

Hamish

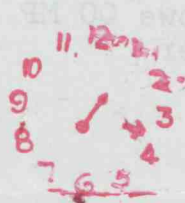
DEPARTMENT OF ENERGY
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Direct Line 01-21 4290
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THE SECRETARY OF STATE
Hansard Gray Ltd. M.

29 AUGUST 1979



23 August 1979

PROBLEMS ASSOCIATED WITH THE DEPENDENCE ON IMPORTED MINERALS

Kelvin Jones's letter to you of 15 August was kindly copied to
David Howell here. In David's absence, I am writing to support
the recommendations set out in the penultimate paragraph of
Kelvin's letter.

This Department has some interest in these proposals. Several
of the minerals involved, for example, are required for the
production of specialist materials for use in the energy
industry. I welcome this initiative.

I am copying this letter to Kelvin, and to colleagues who received
copies of his letter.

CONFIDENTIAL

B Ind Pa

DEPARTMENT OF TRADE

1 VICTORIA STREET LONDON SW1H 0ET

Telephone 01-215 7877



From the Secretary of State

NGPM yer
GWH
28/8

The Rt Hon Sir Keith Joseph Bt MP
Secretary of State for Industry
Department of Industry
Ashdown House
123 Victoria Street
LONDON
SW1E 6RB

28 August 1979

Dear Secretary of State,

Thank you for sending me a copy of your letter of 13 August to Geoffrey Howe, about the UK's dependence on imported minerals.

I agree that there are important problems here on which we need a strategy. Like the Prime Minister, however, I would question the policy of making a public statement at this stage. Any announcement, for example, that we were considering a change in Government policy on stock-piling would be likely to drive up prices against us in some of the markets concerned. If a Ministerial decision were taken to stockpile, it might be worth considering whether an agent of the Government (perhaps a major mining house) could make some purchases in the market without any publicity at all - though I recognise of course that eventually Parliament would have to be told what was happening. On the merits of the stock-piling proposal, it is certainly true, as the Prime Minister points out, that any stockpile of a size we could afford could offer only limited and temporary relief in the event of an extended interruption in supplies. It would nonetheless

Contd...



From the Secretary of State

in my view be of very great value in cushioning the immediate impact of a cut-off in imports, and in easing the subsequent process of adjustment. We should also, I think, bear in mind the steps which other Western countries (including Germany, France and Japan), some of which are less dependent than we are on South African supplies, are already taking to build up stock-piles of their own. I believe therefore that in principle a good case has been established for Government action on stockpiling the five or six most vulnerable minerals which we obtain almost entirely from Southern Africa.

On the mechanics it may be worth officials exploring, as you suggest, whether it would be possible to devise a scheme based on additional stocks held mainly by industry, with Government assistance towards interest and other operating costs. I am however, sceptical about this approach. I doubt whether it would be possible to segregate Government financed stocks from commercial stocks without the danger of abuse. We may therefore come back to the idea of a separate, Government-operated stock pile for the sake of simplicity and speed: though this would involve higher costs of public expenditure, it seems to me the right way for the Government to meet a strategic objective of national importance.

I do not believe that government action to stimulate additional exploration (still less to stimulate investment in new overseas mining capacity) is likely to be effective. The sums of money which the Exchequer might contribute are tiny compared to the total cost - and we do not wish to encourage marginal production in areas of high political risk.

I am sending a copy of this letter to the recipients of yours..

Yours Sincerely

A.W. Bartlett.

P.P. JOHN NOTT

(Approved by the Secretary of State and
signed in his absence)

2 16 1979



CONFIDENTIAL



B

Industrial
Policy

10 DOWNING STREET

From the Private Secretary

23 August 1979

UK Dependence on Imported Minerals and the Proposal for
Mineral Stockpiles

The Prime Minister has seen a copy of the Secretary of State for Industry's letter of 13 August to the Chancellor of the Exchequer, covering a paper prepared by officials, about the threats to the UK's mineral raw material supplies and possible means of reducing them.

The Prime Minister has taken note of the background in the official paper and has considered the proposals in the final paragraph of Sir Keith Joseph's letter. The Prime Minister would naturally be interested to see in due course the views of her colleagues on Sir Keith Joseph's recommendations. For her part, however, the Prime Minister is not at this stage prepared to agree that the exercise outlined in Sir Keith Joseph's letter should go ahead. She takes the view that a public statement of the nature proposed would give rise to considerable alarm and could have adverse consequences for the markets concerned. The Prime Minister has also commented that stockpiles can usually do no more than mitigate the effects of temporary shortages and are unlikely to provide an effective solution to the longer term problems identified in the paper by officials.

I am sending a copy of this letter to Stephen Wall (Foreign and Commonwealth Office), Tom Harris (Department of Trade), Bill Burroughs (Department of Energy), Roger Facer (Ministry of Defence), Garth Waters (Ministry of Agriculture, Fisheries and Food), Alistair Pirie (Chief Secretary's Office) and Martin Vile (Cabinet Office).

B. G. CARTLEDGE

KLP

Peter Mason, Esq.,
Department of Industry.

CONFIDENTIAL

020
Secretary of State for Industry

DEPARTMENT OF INDUSTRY
ASHDOWN HOUSE
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Telephone Direct Line 01-212 3301
Switchboard 01-212 7676

13 August 1979

CONFIDENTIAL

The Rt Hon Sir Geoffrey Howe QC MP
Chancellor of the Exchequer
HM Treasury
Whitehall
London SW1

PROBLEMS ASSOCIATED WITH UK DEPENDENCE ON IMPORTED MINERALS

I attach a paper prepared by officials of the Department of Industry drawing attention to the threats to the continued supply of mineral raw materials to the UK and discussing possible ways of reducing them.

Certain risks, both strategic and economic, arise from the UK's inescapably heavy dependence on imported industrial raw materials, some of which are difficult to replace and are available from only a few sources. These risks range from short or long-term supply interruptions to lack of long-term supplies at competitive prices because of insufficient investment overseas. The problems are closely related, but potential supply disruptions due to political factors present the most serious immediate threats, the most obvious example being that of South Africa. The critical extent to which the UK is dependent on Southern African raw materials - especially cobalt, antimony, chrome, manganese, the platinum group metals and vanadium - is compounded by the geological fact that the main alternative source for most of them is the USSR. Add to that the indispensability of these minerals to our economy, the steel industry being a prime example, and the situation is sufficiently serious to justify considering taking measures to reduce some of the risks involved. It is significant that our major industrial competitors have already taken or are taking steps to reduce these risks. Indeed their actions, by reducing free market supplies of certain minerals, may themselves aggravate the problems our own industry faces.

The paper discusses a minerals policy in which maximisation of indigenous resources, reclamation and recycling, substitution, diversification of sources of supply and stockpiling offer some prospect of alleviating the general problems. It seems right consciously to group these closely-related measures into a broad strategy. Substitution and recycling/reclamation studies are however long-term measures and may be somewhat limited in their effect, and on present evidence the UK does not have significant

/deposits.....



deposits of the minerals most at risk. The measures likely to be most helpful in ensuring continued supplies for UK industry are in the medium to long-term, diversification of supply sources; and in the short to medium-term, stockpiling.

Ideally, supply sources of all raw minerals should be diversified and I believe this should be actively encouraged by offering exploration incentives to help uncover new mineral deposits. At the same time, we need to consider whether the uncovering of new deposits would be sufficient to improve the supply position or whether we should also consider offering industry guarantees at the development stage of mining operations.

Embarking on a policy of Government stockpiling raises the spectre of additional bureaucracy and questions of storage and control of stocks, quite apart from direct financial implications for the Exchequer - though I understand commercial bank funding (still involving interest payments being borne by the Government) is a real possibility - and I think we should concentrate on developing the option of a national minerals stockpile to be held primarily by industry. Clearly we would need to decide upon our objectives, for example which materials and industrial consumers would be included and the periods to be covered - the cost of UK annual consumption of the critical Southern African minerals alone is in the order of £150m. It would also be necessary to discuss with firms the level of assistance that might be required to add sufficiently to the normal levels of stocks held for ordinary commercial operations. We would thus need to discuss the extent of existing raw material stocks and in this context it is noteworthy that some firms are already examining the desirability of holding stocks in excess of the normal commercial levels, notably Rolls Royce and BSC. The banking sector would also need to be consulted to establish the possibility of commercial funding for this option.

Powers under the Industry Act 1972 could be used for providing guarantees to assist mining development and probably also for a government supported stockpiling scheme. In addition the Export Guarantees and Overseas Investment Act 1978 might be of some assistance. All the options have to be examined very carefully, however, and the best course may be a raw materials policy bill embracing all measures.

Obviously diversification and stockpiling could involve significant public expenditure, though at this early stage it is not possible to make a reasoned assessment of how much, and it would be important that any scheme finally decided upon was discretionary rather than automatic. There is no provision in the Public Expenditure Survey for expenditure in this area and it would be for decision how any Government contribution should be funded. It would certainly have to be made clear at the outset that our discussions with industry would be exploratory, implying no Government decision to commit public funds.

An exercise of this nature could not be carried out without

/becoming....



3.

becoming publicly known. No previous Government has previously admitted that it considers the raw materials supply problem serious enough to warrant considering Government support, and once discussions with industry commence the media will undoubtedly ask questions. I propose therefore to issue a press release before discussions start, and I would of course agree its terms with Peter Carrington because of the importance of getting the tone right in relation to South Africa.

I invite my colleagues to agree that:

- i) the risk of interruption of supplies of the key minerals on which the UK is inescapably dependent - especially the Southern African minerals - justifies taking policy initiatives with a view to ensuring continuity of those supplies in view of their importance to the economy;
- ii) a scheme of exploration incentives be formulated with the aim of encouraging source diversification and stimulating mining investment;
- iii) the possibility of developing a system of guarantees for UK firms at the developing stage of operations be studied inter-departmentally;
- iv) while affirming the primary responsibility of industry to hold stocks of raw materials particularly for normal commercial operations, a policy of minerals stockpiling should be formulated by the Government in discussion with industry as an insurance against interruption of needed supplies and to augment ordinary levels of stocks;
- v) a public statement be made announcing that the Government, recognising the security of supply problem, is to discuss possible solutions with industry.

I am sending copies of this letter to the Prime Minister, Peter Carrington, John Nott, David Howell, Francis Pym, Peter Walker, John Biffen, Kenneth Berrill and to Sir John Hunt.

Yours sincerely
PF Munnings

PP KEITH JOSEPH
 (approved by the Secretary
 of State and signed in his
 absence)



PROBLEMS ASSOCIATED WITH UK DEPENDENCE ON IMPORTED MINERALS

Introduction

1 This paper examines problems attending the marked dependence of this country on imported industrial raw materials, particularly minerals. It focuses on the difficulties of ensuring continuity of mineral supply and discusses possible solutions to this problem - solutions which represent elements of an evolving comprehensive minerals policy.

The Problems

2 Possessing limited indigenous resources, UK industry - like that of the EEC generally and of Japan - is almost entirely dependent on imported minerals, unlike the USA which has substantial indigenous resources. Some of these are available widely or do not have important uses; in other cases, however, difficulties arise. Annex 1 illustrates the degree of import dependence. Aside from the likelihood that the earth's mineral resources will become more difficult (and more costly in energy) to exploit as the richest ore grades are worked out - three main risks to the availability of minerals arise from the UK's heavy dependence on imports.

- i) short or long term supply interruptions of a "political" nature, ranging from strikes in the producing industries or the transport chain through civil unrest or localised wars to trade embargoes imposed by their producer or consumer Governments;
- ii) future physical shortages caused by insufficient investment in exploration for new deposits and in new mines/processing plants, due inter alia to the political/economic policies of developing producer countries;
- iii) difficulties which may be experienced by UK consumers in obtaining assured supplies on a long term basis at competitive prices because their competitors have pre-empted them, often assisted by government policies aimed at achieving greater security of supply.



Security of Supply

3 The heightened awareness in the consuming countries in recent years of their vulnerability to interruptions to their raw material supplies, although clearly accentuated by oil supply problems, extends to imports of key minerals. 1979 has already witnessed announcements by France, West Germany and South Korea of plans to accumulate or expand stockpiles of strategic minerals as a form of insurance against supply interruptions and it is known that Spain too is seriously contemplating a similar policy: these stockpiles will add to those already instituted by the USA, Japan, Sweden and Switzerland. Reliance on only one or two comparatively unstable sources clearly compounds the risks outlined in Paragraph 2 above. Security of supply of minerals has been the subject of a good deal of work within Whitehall generally and continuing studies are endeavouring to pin-point those raw materials associated with vulnerable sources, bearing in mind their relative importance to the UK economy.

4 Minerals from Southern Africa gives rise to particular concern. There are other countries and areas of the world whose political/economic stability and/or policies raise the same kind of issues as those applying in Southern Africa, but nowhere else are these issues highlighted quite so dramatically. The problem is two-fold:

- i) the West generally (and the UK particularly) is heavily dependent on four non-ferrous metals from South Africa itself and on cobalt from Zaire (which normally supplies around 60% of the world's cobalt). In addition the UK relies heavily on South African antimony;
- ii) the main alternative sources for three of the South African minerals are in the USSR. Annex 2 shows the trade pattern for the West for the five South African minerals in more detail but the following table illustrates the situation currently facing the UK:



	<u>UK import dependence on South Africa in 1977</u>	<u>World Reserves</u>	
		<u>South Africa</u>	<u>USSR</u>
Antimony	68%	8%	7% (China, 50%, Bolivia 9%)
Chromium	61%	68%	1% (and 30% in Rhodesia)
Manganese	46%	37%	40%
Platinum Group	66%	<u>73%</u>	25%
Vanadium	33%	19%	<u>74%</u>

SOURCE: IGS

5 The importance of the Southern African minerals to the UK economy can be judged from a brief description of their uses:

<u>Antimony:</u>	widely used as a hardener and for fire-resistant materials;
<u>Chromium:</u>	essential for stainless steel used in food manufacture and process plant and for chemical uses;
<u>Manganese:</u>	essential to all steel making, and in batteries, etc;
<u>Platinum:</u>	essential as a catalyst in oil refining, nitric acid manufacture (for fertilizers especially) and vehicle emission control systems, and for electrical circuits where high resistance to heat and/or corrosion is necessary;
<u>Vanadium:</u>	essential to special steels used particularly for pipelines;
<u>Cobalt:</u>	essential as a hardener for cutting tools and in turbine blades for jet engines, for magnets in some applications and some catalytic uses.

If Southern African supplies of these minerals were lost or substantially reduced, the impact on British industry would be serious and widespread.

6 The threats to supplies from South Africa itself range from internal strife to UN mandatory trade sanctions. There is also the possibility that an embargo on exports applied by the UN could lead South Africa to retaliate by withholding supplies of strategic minerals. Zaire's cobalt supplies did stop flowing last year as a result of invasion of the Shaba Province, which caused the temporary closure of the Kolwezi copper mines (cobalt is mainly a by-product of copper mining). The effects of this are still being felt: cobalt is in very short



supply world-wide; its price has trebled; and the Government has had to underwrite loans which major British users were forced to give the Zambian cobalt producers in order to ensure continuing supplies from there. Supplies of copper from Zambia too have been severely curtailed in recent years, due mainly to transport problems (difficulties with the road and rail routes used as alternatives to crossing Rhodesia and with the Benguela railway); here the effects for the UK have not been so serious, however, because we rely on Zambia for only 25% (1977) or so of our copper, which helps illustrate the potential benefits of diversifying supply sources (see para 13).

Mining Investment

7 Mining is an industry of long lead-times. Typically the time taken from discovering a major deposit to proving it, developing it and commencing production is 8-10 years. Continuity of investment in exploration (the proving stage beyond prospecting) and in actual mines/processing plant is therefore essential, but in recent years there has been a serious decline in this kind of activity. The general downturn in economic activity and the resulting fall in metal prices (in real terms) is of course part of the explanation, but a substantial role has been played by the increasing reluctance of mining companies to invest in developing countries. There are many obstacles nowadays to mining in industrialised countries: high operating costs, restrictive labour agreements, severe tax regimes and environmental pressures. Yet these are often outweighed by the risks of investing in developing countries (LDCs): outright expropriation, "creeping" expropriation, political instability and a general mistrust of multinational companies. The companies calculate that in absolute terms their current investment falls far below that necessary to provide for industry's needs in 10 years' time, and that restoring their confidence to invest in developing countries would go a long way to correct this shortfall.

Long Term Supply Contracts

8 Mining is not only a long-term business; it is also an increasingly expensive operation. The cost of developing a major mine is now so high (approximately \$1.2 billion for a large copper project) that consortia are now the norm and the financing is a very complex arrangement. Typically part of the cost is raised by requiring future customers for the mine's output to take an equity stake or put up loan capital, which means that most (sometimes all) of the output is sewn up in



long term supply contracts (at advantageous prices) well in advance. If British companies are to compete in this league they need to be able to operate on equal terms with their competitors, but they claim that in relation to German and Japanese firms they are disadvantaged. Certainly the German Kreditanstalt für Wiederaufbau offers loans on very favourable terms - and the Japanese have similar arrangements - and the German terms for overseas investment insurance differ from the British scheme (operated by the ECGD), so that prima facie there appears to be a case for examination. The application by British Kynoch Metals (BKM) - the purchasing company formed by three major UK copper users (BICC, IMI and Delta Metals) - for assistance in putting cash into the Cerro Colorado (Panama) copper project in return for a long term supply contract, provides a current example of this problem. There are however other implications, for example the question whether there is scope for more UK non-ferrous metals consumers to make joint purchasing arrangements (on the BKM pattern) enabling them to operate in the bigger league world-wide.

A Minerals Strategy

9 Government awareness of the potential risks associated with the UK's dependence on overseas supplies of raw materials, particularly minerals, is of course not a new phenomenon. At various times since the Second World War there have been policies intended to lessen the risks, eg stockpiles of strategic (mainly in the military sense) materials, encouragement for indigenous mining, special treatment for overseas mining investment within the exchange control regulations. Many observers have claimed, however, that there has not been a comprehensive strategy aimed at using minerals more effectively and reducing the risks of our dependence on imports. The Department of Industry is currently examining this question of a minerals strategy, some elements of which can certainly be seen to exist already in piecemeal form, to establish how far it would need to be developed more formally and what gaps would need filling. There are essentially five elements which might constitute an overall policy in this area aimed at reducing the risks associated with heavy dependence on overseas sources of supply:

- i) maximisation of indigenous resources;
- ii) reclamation and recycling;
- iii) substitution of materials;



- iv) diversification of supply sources;
- v) stockpiling.

The first four of these are clearly medium-term policies at best and more realistically long-term; stockpiling offers the possibility of bridging short-term periods of shortage, but as will be seen later does not provide immediate relief. Diversification and stockpiling are particularly relevant to security of supply consideration.

Maximisation of Indigenous Resources

10 In the 18th and 19th centuries the UK was a major producer of copper, lead and tin, but tin is now the only non-ferrous metal mined in significant quantities. Other industrial minerals mined on a large scale include china and ball clay, fluorspar, industrial sands, limestone and potash. In addition to security of supply there are obvious benefits from indigenous mining for the balance of payments and for employment, but there remains doubt whether more minerals exist in the UK in economic quantities. The Department of Industry funds multi-disciplinary programmes of work by the Institute of Geological Sciences designed to prospect select areas of mineralisation and identify those which are sufficiently promising to attract industry. Additionally, under the Mineral Exploration and Investment Grants Act 1972, grants of up to 35% are payable to companies carrying out approved exploration for specified minerals. (These grants are repayable if commercial exploration results.) Comparatively little use has been made by industry of the exploration grants scheme and - aside from the question whether there are in fact workable mineral deposits to be found in the UK - there are claimed to be two main obstacles to mining in this country: the planning system, about which the Stevens Committee reported some time ago (and further Government responses to its report are under discussion inter-departmentally), and the difficulty of identifying and acquiring mineral rights. Work is continuing in these areas.

Reclamation and Recycling

11 Industry has always re-used a great deal of the raw material discarded during manufacturing processes, and there has also been significant reclamation of items of metal scrap and of waste paper. However, substantial quantities of recyclable materials in domestic and industrial wastes are not being reclaimed at present and



there would be advantages in using these to reduce our needs for primary materials - with the balance of payments and resource benefits as well. The main thrust from the Government side comes from the National Anti-Waste Programme (NAWP), a small group of staff who also service the Waste Management Advisory Council (WMAC) which was set up in 1974 and was recently restructured to make it more effective. The work of the NAWP has so far been limited to advice and persuasion, but with pressure from within the EEC to adopt legislative and fiscal measures to discourage waste and encourage recycling, it will be for consideration what further work needs to be done in this area.

Substitution of Materials

12 Substitution of one material by another which is cheaper or more effective is a normal process in industry and could be valuable in the context of materials which are vulnerable to supply difficulties. It is however a long term business, often requiring time to change manufacturing methods, retool, etc, and could be of only limited help in a crisis situation. Both in the EEC and here in the UK studies are in hand to see how far further substitution could help in the security of supply area: the Raw Materials Sub-Committee of CREST has commissioned work on four materials and three of the Department of Industry's own Research Establishments (National Engineering Laboratory, National Physical Laboratory and Warren Spring Laboratory) are looking at six steel alloying elements and platinum - in each case seeking to establish what is the current state of the art and whether R&D looks potentially fruitful. The NPL is also trying to look beyond simple substitution of one material for another to make the same end-product (eg stainless steel) towards the concept of using entirely new combinations of materials to do a particular job (eg an alternative to stainless steel in particular process plant applications). All this work has so far centred on the Southern African minerals.

Diversification of Supply Sources

13 Even if the UK continues to be almost entirely dependent on imported minerals there are clearly advantages in avoiding undue dependence on one or two sources, especially where associated political problems pose a risk to supplies. However, our current supply pattern depends on a mixture of our traditional trading links with the Commonwealth and simple geological facts - for example, that the deposits of chrome and platinum in South Africa are uniquely economic to exploit. Additionally there is not necessarily a link between mining by UK companies and mineral supplies to British users. Our major industrialised competitors recognise



the importance of encouraging their companies to look more widely and offer various types of financial assistance. The Germans in particular have a much-quoted scheme of grants for overseas exploration, a system of loans for investment on comparatively easy terms and arrangements for overseas investment insurance which our companies see as more attractive than those offered by the ECGD. The German grants and loans are generally tied to the provision of supplies to German industry - as far as the Treaty of Rome allows. It is for consideration how far the UK should adopt a similar approach.

14 The problem is not simple. What would be needed, in essence, is a system of incentives for mining companies to go out and look for new deposits earlier than their normal commercial judgement would lead them to do so, and possibly to spend heavily to prove and develop any that appear economic. The system might also need to encourage users to change their traditional supply patterns in the interests of assuring supplies, particularly of key raw materials. The range of possibilities includes an overseas exploration incentives scheme, Government guarantees for companies' investment in mines, improvement of the ECGD investment insurance scheme and perhaps even assistance with financing. As far as possible, the aim would be to link Government assistance with eventual supplies flowing to UK industry.

15 A very important potential new source of cobalt, copper, manganese and nickel lies in the manganese nodules on the seabed beyond the Continental Shelves: apart from copper the reserves of these minerals in nodules are probably of the same order of magnitude as on land. Three UK companies (BP, Consolidated Gold Fields and RTZ) are members of a US-led seabed mining consortium and have received a modest amount of financial help - a grant of £830,000 between them which is repayable if their first operation goes into commercial production - in return for guaranteeing that they will give first refusal of their share of production to UK users. The UN Conference on the Law of the Sea (UNLOSC) has been trying for a long time to agree a convention covering, inter alia, seabed mining (the resources of the seabed are defined as the Common Heritage of Mankind) but so far without success. The seabed is becoming the main sticking point of UNLOSC and the UK may soon have to decide where the overall balance of advantage lies as between gaining assured access to manganese nodules and the other aspects of the draft convention.



We may also need to introduce unilateral legislation on seabed mining to match the Americans (where draft bills are before both Houses of Congress) and the Germans (who are well ahead with draft bills).

Stockpiling

16 The essential justification for stockpiles of vulnerable minerals and relevance to security of supply is straightforward: if supplies dry up for any reason, they allow industry to bridge the gap until supplies are resumed, alternative sources become available or some kind of substitution takes place. Strategic stockpiling as a form of short to medium term insurance against risks of supply interruptions with their potentially deleterious effects on UK industry is to be distinguished from stockpiling in the sense of cushioning users against price fluctuations or, on a larger scale, attempting to maintain price stability by judicious buying and selling in a buffer stock mechanism. It is not of course, an immediate solution: to build up stocks without seriously affecting the market takes a considerable time - probably two or three times the length of time the stocks are expected to last.

17 It is significant that many of our industrial partners, mainly in recognition of the security of supply problem, have instituted a stockpiling policy as a means of buying breathing space for other measures should the flow of essential raw materials be interrupted. The USA has a long-standing policy of holding stocks of essential raw materials sufficient to last for three years of a conventional war and now has some \$8.5 billion worth of materials which could be deployed in a non-military emergency if the Administration and Congress agree. France has recently announced that her modest stocks (on average 2 months usage) will be quadrupled for "high vulnerability materials" - coupled with new action on exploration and conservation. The FRG has now decided to build stockpiles of 8 months supply (supplementary to West German industry's normal working stock levels) to provide up to a year's protection against supply interruptions of 4 or 5 vulnerable minerals. Approximately DM 600 million is expected to be committed over the next few years financed by Bundesbank reserves. Spain and South Korea too are seriously contemplating instituting strategic stockpiles. Additionally, Japan, Sweden and Switzerland have degrees of stockpiling. It is known that Southern African aspects of raw material supply have played an important part in most of these decisions.



18 At present UK strategic stocks are confined to food, oil, petroleum products and coal, though some small supplies of critical metals are still held by MOD. In extending this policy to cover stocks of minerals essential to UK industry, certain implications would need to be considered - chiefly costs and method. The cost of a strategic stockpile is contingent on the length of the breathing-space it would be intended to provide and the method chosen to implement the policy. A full Government stockpile of cobalt, antimony, chromium, platinum, manganese and vanadium designed to cover a six-month period would cost in the order of £78M at 1978 prices or £150M-£160M for a year's consumption. This excludes administrative expenditure. Figures of this order clearly rule out any idea of building stockpiles to last for a number of years, though it might be possible to arrange commercial bank funding, thus reducing the resultant expenditure to be borne to interest repayments.

19 On methods, there would be two sets of decisions to make concerning the form in which stocks should be held and whether Government or industry should hold them. Materials could be accumulated in their ore, semi-processed or processed form. There are also complex variations of grades and purities needed for different purposes. The simplest administrative method is probably for Government to run a stockpile. This avoids complicated relationships with industry, ensures that stocks are used only in what Government regards as the right circumstances and gives greatest flexibility of disposal so that the most essential areas of industry can receive stocks when the crisis comes. But it is almost certainly the most expensive way, since Government not only buys the minerals but also provides storage facilities, and needs a substantial administrative organisation, and it requires Government to make many detailed decisions requiring special knowledge and experience. The extreme alternative is to provide industry with the minimum incentives necessary to encourage it to hold larger stockpiles of some materials than it usually does - some kind of fiscal reliefs might be enough, though where firms pay little tax some financial assistance might be necessary. This approach is cheaper, avoids the need for a new Government organisation and leaves decisions about grades of materials, etc, with industry, which knows its own needs best. But it runs the risk of not persuading enough companies to stockpile and of giving Government insufficient control over the circumstances in which the stocks are used.



The Germans have rejected the idea of Government stockpiling but they are finding it very difficult to produce a middle-way which gives industry enough encouragement to stockpile and Government enough control over the stocks. If the UK were to decide to follow the same approach we should need to have detailed discussions with all sections of industry.- processors of metals, users and traders - on the most effective arrangements.

Conclusion

20 The degree to which the UK is inescapably dependent on external sources of industrial raw materials, especially minerals, poses problems of guaranteeing continued supplies to UK industry. Susceptibility to interruption in supply of a political nature gives rise to particular concern, especially where minerals essential to the economy originate from a few troublesome areas - a situation best illustrated by Southern Africa. Of the possible solutions to the security of supply problem the most effective appear to be medium-term measures aimed at encouraging a well diversified trade pattern, principally by stimulating overseas investment activity in raw materials, and, as a short to medium-term instrument of policy, the institution of a strategic stockpile of selected minerals to accommodate a certain period of consumption. Active consideration should now be given to these options of policy. Such consideration should, however, be seen to be set against a wider backcloth of an overall strategy in the industrial raw material area consciously combining the various elements on which work is proceeding into a "minerals policy".

Department of Industry
July 1979



TABLE A1: IMPORT DEPENDENCE IN THE

UK, EEC, USA & JAPAN

Imports as a percentage of Consumption

	UK	EEC	USA	JAPAN
Aluminium	62 (b)	61 (b)	85 (b)	100 (b)
Copper	82	81		90
Lead	46	53	4	76
Nickel	100 (a)	100 (a)	71	100
Tin	65	87	75	97
Zinc	100	<68	64	80
Iron Ore	89	79	29	94
Manganese	100	100	99	90
Antimony	100 (a)	95 (a)		
Cadmium	81	36 (nearer 100 with ore)		
Chromium	100	100	91	100
Cobalt	100 (a)	100 (a)	98	
Niobium	100	100	100	
Germanium	100	100	35	
Mercury	100 (a)	33	73	
Molybdenum	100	100		
Platinum Group	100 (a)	100 (a)	80	
Selenium	100	100	c 42	
Tantalum	100	100	95	
Titanium	100	100		
Tungsten	99.5	> 99	54	
Vanadium	100	99	36	
Zirconium	100	100		
Uranium	100	59 (c)		
Phosphate	100	99		100
Potash	57	20		
Sulphur	>87	>43		
Asbestos	100	100	83	100

Figures are for 1974-76 for UK and EEC, 1974 for USA, and 1972 for Japan.

Consumption includes secondary recovery.

(a) Excluding scrap.

(b) Allowing for imported bauxite, alumina and metal. US figures from Mineral Development in the Eighties. Prospects and Problems - BNAC 1976. Japanese figures for 1972 from the Report of United States' Council on International Economic Policy' - 'Critical Imported Materials' - December 1974.

(c) Proportion will rise rapidly as EEC consumption grows and French production provides a smaller percentage.

SOURCE: British Foreign Policy to 1985 - Non Fuel Minerals and Foreign Policy: Royal Institute of International Affairs.

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IMPORT DEPENDENCE ON SUPPLIES

FROM SOUTH AFRICA IN 1977

	<u>UK</u>	<u>Bel/ Lux</u>	<u>France</u>	<u>FR Germany</u>	<u>Italy</u>	<u>Netherlands</u>	<u>Japan</u>	<u>USA</u>
Antimony	68%	10%	15%	21%	17%	23%	-	30%
Chromium	61%	43%	35%	62%	40%	70%	49%	43%
Manganese	46%	28%	26%	39%	44%	37%	40%	36%
Platinum Group	66%	61%	58%	43%	62%	51%	52%	70%
Vanadium	33%	88%	53%	67%	54%	88%	76%	64%

These figures include both direct and indirect imports by showing ultimate sourcing even where imports emanating from South Africa pass through intermediary countries en route to the UK.

SOURCE: IGS

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