



DEFENSE LOGISTICS AGENCY
DEFENSE NATIONAL STOCKPILE CENTER
8725 JOHN J. KINGMAN ROAD, SUITE 4616
FT. BELVOIR, VIRGINIA 22060-6220



IN REPLY
REFER TO

AMENDMENT NO. 5 **December 02, 1999**
To
DLA-METALLURGICAL GRADE BAUXITE, SURINAM TYPE-002
SOLICITATION OF OFFERS FOR
METALLURGICAL GRADE BAUXITE,
SURINAM TYPE

Effective the date of issuance of this Amendment, the receipt of offers under Solicitation of Offers DLA-METALLURGICAL GRADE BAUXITE, SURINAM TYPE-002 is postponed until further notice.

All other terms and conditions of DLA-METALLURGICAL GRADE BAUXITE, SURINAM TYPE-002 remain in full force and effect.



DEFENSE LOGISTICS AGENCY
 DEFENSE NATIONAL STOCKPILE CENTER
 8725 JOHN J. KINGMAN ROAD, SUITE 4616
 FT. BELVOIR, VIRGINIA 22060-6220



IN REPLY
REFER TO

AMENDMENT NO. 4

September 29, 1999

To
DLA-METALLURGICAL GRADE BAUXITE,
SURINAM TYPE-002
SOLICITATION OF OFFERS FOR
METALLURGICAL GRADE BAUXITE,
SURINAM TYPE

The above referenced Solicitation for the sale of Metallurgical Grade Bauxite, Surinam Type, Amendment 3 is amended as follows:

1. Section J- List of Attachments:

Change J.2 Storage Locations (SEP 99) for Texarkana, TX, and rail transportation to the following:

<u>Location</u>	<u>Hours of Operation</u>	<u>Transportation Available</u>
Texarkana, TX	1200PM-1600PM MON 0730AM-1600PM TUE-THUR 0730AM-1200PM FRI	Truck/ Rail

Offerors shall indicate acknowledgement of receipt of this Amendment by signing in the space provided below and returning the signed Amendment to the Contracting Officer.

Defense National Stockpile Center
 Attn: Patricia L. Harrison
 8725 John J. Kingman Rd. Suite 4616
 Fort Belvoir, VA 22060-6223

NAME OF OFFEROR: _____

ADDRESS: _____

SIGNATURE: _____

TITLE: _____

DATE: _____



REFER TO

IN REPLY

DEFENSE LOGISTICS AGENCY
DEFENSE NATIONAL STOCKPILE CENTER
8725 JOHN J. KINGMAN ROAD, SUITE 4616
FT. BELVOIR, VIRGINIA 22060-6220



AMENDMENT NO. 3

September 9, 1999

To
DLA-METALLURGICAL GRADE BAUXITE,
SURINAM TYPE-002
SOLICITATION OF OFFERS FOR
METALLURGICAL GRADE BAUXITE,
SURINAM TYPE

The above referenced Solicitation for the sale of Metallurgical Grade Bauxite, Surinam Type, is amended as follows:

1. Section A - SOLICITATION

Delete A.1 Introduction, paragraph a. through c., and replace with the following paragraphs a. through c.:

- a.** The Defense Logistics Agency (DLA), Defense National Stockpile Center (DNSC), is soliciting offers for the sale of approximately 450,000 long dry tons (LDT) of Metallurgical Grade Bauxite, Surinam Type in Fiscal Year 2000.
- b.** The initial offering will be held on Friday, October 8, 1999 at 4:00 p.m., local time, Fort Belvoir, VA. If all material is not sold, subsequent offerings will be held the second Friday of each month beginning November 12, 1999 until all material is sold. Offerors are advised to telephone the Directorate of Stockpile Contracts at (703) 767-6500 to ascertain the availability of material. Offers must be received at the address **in Section B.2.a by 4:00 p.m., local time, Fort Belvoir, VA**. In the event the second Friday of any month is a holiday, or DNSC is otherwise closed that day, offers for that day will be received at 4:00 p.m. on the next DNSC business day.
- c.** Handling and outloading will be performed by and at the expense of the Contractor (See Section F.1.d.).

2. Section I-SUBMITTALS

Delete existing **I.2 Item Offer Page (OCT 98)**, and replace with attached **I.2 Item Offer Page (SEP 99)**.

3. Section J-LIST OF ATTACHMENTS

Delete existing **J.1 Metallurgical Grade Bauxite, Surinam Type Analyses (OCT 98)**, and replace with attached **J.1 Metallurgical Grade Bauxite, Surinam Type Analyses (SEP 99)**.

Delete existing **J.2 Storage Locations (OCT 98)**, and replace with attached **J.2 Storage Locations (SEP 99)**.

J.2 Storage Location (SEP 99)

**DLA-METALLURGICAL GRADE
BAUXITE, SURINAM-002**

<u>Location:</u>	<u>Hours of Operation:</u>	<u>Transportation Available:</u>
Texarkana, TX	1200PM-1600PM MON 0730AM-1600PM TUE-THUR 0730AM-1200PM FRI	Truck/ Rail
Anniston, AL	1200PM-1600PM MON 0730AM-1600PM TUE-THUR 0730AM-1200PM FRI	Truck Only
Pine Bluff, AR	1200PM-1600PM MON 0730AM-1600PM TUE-THUR 0730AM-1200PM FRI	Truck/ Rail

Point of Contact:

Mr. Bill Fritz
Defense National Stockpile Center
8725 John J. Kingman Road, Suite 4629
Ft. Belvoir, VA 22060-6223
Telephone: 703 767-7611
FAX: 703 767-7608

ISSUE DATE: June 22, 1998

**DLA-METALLURGICAL GRADE
BAUXITE, SURINAM TYPE-002**
SOLICITATIONS OF OFFERS
FOR
METTALURGICAL GRADE BAUXITE,
SURINAM TYPE



DEFENSE LOGISTICS AGENCY

Defense National Stockpile Center
8725 John J. Kingman Road
Fort Belvoir, VA 22060-6223

Defense National Stockpile Center

This page intentionally left blank

TABLE OF CONTENTS

SECTION A – SOLICITATION	5
A.1 Introduction (JUL 97).....	5
A.2 Description (JAN 95).....	5
SECTION B – PREPARATION AND SUBMISSION OF OFFERS	6
B.1 Submittals (JAN 95).....	6
B.2 General Information (JUL 95).....	6
B.3 Minimum Quantity (JAN 95).....	7
B.4 Fiscal Years 1999 and 2000: Economic Price Adjustment.....	8
B.5 Late Submissions, Modifications, and Withdrawals of Offers (JUL 97).....	10
B.6 Facsimile Submissions (JUL 97).....	12
B.7 Consideration of Offers (FEB 98).....	12
B.8 Evaluation of Offers (MAR 98).....	13
B.9 Negotiation Procedures (DEC 97).....	13
B.10 Disclosure of Information (JUL 97).....	15
B.11 Responsibility Determination (JUN 95).....	15
B.12 Contract Award (JUL 97).....	15
B.13 Unsuccessful Offerors (FEB 98).....	15
SECTION C – INSPECTION /SAMPLING (FEB 98)	16
SECTION D - PAYMENT	17
D.1 Payment (JUL 97).....	17
D.2 Payment Due Date (JUL 97).....	18
D.3 Interest (JUL 97).....	18
SECTION E - REMOVAL	19
E.1 Removal of Material (AUG 97).....	19
E.2 Storage Charges (JUL 97).....	19
SECTION F - SHIPPING	20
F.1 Request for Shipment (FEB 98).....	20
F.2 Insurance Requirements (APR 95).....	21
F.3 Weighing (JAN 95).....	22
F.4 Moisture Determination.....	23
F.5 Assumption of Risk and Disclaimer of Liability (JUL 97).....	23
F.6 Adjustment for Variation in Quantity or Weight (JAN 95).....	23
F.7 Environmental Protection (JUN 95).....	24
SECTION G - CONTRACT ADMINISTRATION DATA	26
G.1 Effective Period (JAN 95).....	26
G.2 Amendments and Modifications (JAN 95).....	26
G.3 Title (JAN 98).....	26
G.4 Risk of Loss (JAN 98).....	26
G.5 Limitation on Government’s Liability (JAN 95).....	26
G.6 Protests (FEB 97).....	27
G.7 Disputes (JAN 95).....	28
G.8 Default (JUL 97).....	29
G.9 Termination for Convenience of the Government (DEC 97).....	30
G.10 Excusable Delays (MAY 95).....	31
G.11 Setoff of Funds (APR 96).....	31
G.12 Indemnification Agreement (JUN 96).....	31
G.13 Covenant Against Contingent Fees (JAN 95).....	32
SECTION H - DEFINITIONS (JUN 95)	33
SECTION I - SUBMITTALS	34
I.1 Sale of Government Property.....	35
I.2 Item Offer Page -.....	36
I.3 Certificate of Independent Price Determination (JUL 97).....	37
I.4 Certification Regarding Debarment, Suspension, Proposed Debarment,.....	38
I.5 Type of Business Organization (APR 96).....	39

I.6 Small Business Concern Certification (JAN 95).....40
I.7 Clean Air and Water Certification (JUN 95).....40
I.8 Authorized Negotiators (JUN 95).....40
I.9 Persons Authorized to Request Shipment of Material (FEB 98).....41
I.10 Offeror’s Billing Address (JUL 96).....41
SECTION J – LIST OF ATTACHMENTS42
J.1 Metallurgical Grade Bauxite, Surinam Type Analyses (APR 98).....43
J.2 Storage Locations DLA-METALLURGICAL GRADE BAUXITE-SURINAM.....44
J.3 Shipping Instructions45
J.4 Material Safety Data Sheets46-62
J.5 Fedwire Procedures63

SECTION A – SOLICITATION**A.1 Introduction (JUL 97)**

- a. The Defense Logistics Agency (DLA), Defense National Stockpile Center (DNSC) is soliciting offers for the sale of approximately 500,000 long dry tons (LDT) of Metallurgical Grade Bauxite, Surinam Type for Fiscal Year 1998.
- b. The initial offering will be held on Thursday, July 23, 1998 at 3:30 p.m. local time. If all material is not sold, subsequent offerings will be held the fourth Thursday of each month until all material is sold. Offerors are advised to telephone the Directorate of Stockpile Contracts at (703) 767-6500 to ascertain the availability of material. Offers must be received at the address in Section **B.2.a.** by 3:30 p.m. local time, Fort Belvoir, VA. In the event that the fourth Thursday is a holiday, or DNSC is otherwise closed at that time, offers for that day will be received at 3:30 p.m. on the next DNSC business day.
- c. Offerors may submit offers for long-term contracts (not to exceed three years) for Fiscal Years 1998 through 2000. The minimum quantity for a short-term contract is 10,000 LDT. The minimum quantity for the initial year of a long-term contract is 10,000 LDT; however, the minimum quantity for the out-years of a long-term contract shall be 50,000 LDT. In the event a contract with commitments for future years is awarded, prices and quantities for Fiscal Years 1999 and 2000 will be set by execution of contract modifications. The execution of modifications under this solicitation is dependent upon sales authority for the quantities in those fiscal years, and the provision contained in **B.4.c.**
- d. Handling and outloading will be performed by and at the expense of the Contractor. (See Section **F.1.d**)

A.2 Description (JAN 95)

The Metallurgical grade Bauxite, Surinam Type, is available at the locations listed in **Section I.2.** See **Section J.1** for further description of the material offered for sale.

SECTION B – PREPARATION AND SUBMISSION OF OFFERS

B.1 Submittals (JAN 95)

Offerors shall submit **all** of the following documents contained in Section I along with the offer:

- a. Section I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)** with the section entitled “Execution by Contractor” completed.
- b. Section I.2, Item Offer Page(s) – DLA- METALLURGICAL GRADE BAUXITE, SURINAM TYPE-001 (JUN 98)** with the (1). Quantity offered column; (2). offered unit price column, (3). total item price column, (4) FY column; (5). company name, (6). name and title, and (7). signature and date blocks completed.
- c. Representations, Certifications, and Identifications at Sections I.3 through I.10.**
- d. Any other terms the Offeror wishes to negotiate accompanied by supporting documentation.**

B.2 General Information (JUL 95)

- a. Facsimile offers and modifications will be accepted in accordance with Section B.6.** Offers may also be submitted by mail or hand delivered enclosed in a sealed envelope and addressed to:

ATTN: DNSC-L (Bid Custodian)
Defense National Stockpile Center
8725 John J. Kingman Road
Suite 4616 (**Mail**) or Suite 4528 (**Hand Delivered**)
Fort Belvoir, Virginia 22060-6223

Place the name and address of the Offeror in the upper left corner and the following information in the lower left corner on the face of the envelope:

**SOLICITATION OF OFFERS
DLA-METALLURGICAL GRADE
BAUXITE, SURINAM TYPE-002**

- b.** The Offeror agrees, if its Offer is accepted by the Government within twenty (20) working days from the date specified in the Solicitation for receipt of offers, to purchase any or all material on which offers are made at the price offered and to take delivery of the material within the removal period specified in the executed **Section I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)**
- c.** Unless a designation of agent is on file at DNSC, an Offeror submitting an offer as agent for another party shall submit written proof, either prior to or with the offer, that it is authorized to act as an agent and shall tender the offer in the name of the principal.

B.3 Minimum Quantity (JAN 95)

- a.** For short-term contracts (one year or less), the **minimum** offer quantity shall be 10,000 LDT's, unless a smaller amount is all that is available for that line item.
- b.** For long-term contracts (two or more years), the **minimum** offer quantity for the initial year shall be 10,000 LDT, and the minimum quantity for the out-years (Fiscal Years 1999 through 2000) shall be 50,000 LDT. In the event a contract with commitments for future years is awarded prices and quantities for Fiscal Years 1999 and 2000 will be set by execution of contract modifications. The execution of modifications under this solicitation is dependent upon sales authority for the quantities in those fiscal years, and the provision contained in **B.4.c.**

B.4 Fiscal Years 1999 and 2000: Economic Price Adjustment

- a. The prices of all fiscal year 1999 and 2000 quantities shall be adjusted in the following manner: The price for the fiscal year 1999 material shall be the FY 1998 award price shall be adjusted by the percent difference between the CRU Alumina Monitor average price for spot Trombetas bauxite per long ton (LT) for the calendar quarter ending 30 June 1998, and the CRU Alumina Monitor average price for spot Trombetas bauxite per LT ton for the calendar quarter ending 30 September 1998 per the DOC. The price shall be effective for the entire quantity of bauxite purchased (note the following example).

Example 1: Scenario-CRU Alumina Montitor price increase

FY 1998 award price:	\$25.00
Average CRU Alumina Monitor price per LT for spot Trombetas bauxite for the calendar quarter ending 30 June 1998:	\$24.50
Average CRU Alumina Monitor price per LT for spot Trombetas bauxite for the calendar quarter ending 30 September 1998:	\$26.46
$\$26.46 - \$24.50 = \$1.96$	
$\$1.96 / \$24.50 = 00.08 = 8\%$	
$100\% + 8\% = 108\% \text{ or } 1.08$	
$\$25.00 \times 1.08 = \$27.00 = \text{FY 1999 Bauxite Award Price}$	

Example 2: Scenerio - CRU Alumina Monitor price decrease

FY 1998 award price: \$25.00

Average CRU Alumina Monitor price per LT for spot Trombetas bauxite for the calendar quarter ending 30 June 1998: \$24.50

Average CRU Alumina Monitor price per LT for spot Trombetas bauxite for the calendar quarter ending 30 September 1998: \$22.05

$$\$22.05 - \$24.50 = -\$2.45$$

$$-\$2.45/\$24.50 = -00.10 = -10\%$$

$$100\% - 10\% = 90\% \text{ or } 0.90$$

$$\$25.00 \times 0.90 = \$22.50 = \text{FY 1999 Bauxite Award Price}$$

- b.** For fiscal year 2000, the base price shall be the price for the preceding fiscal year, adjusted by the percent difference between the average CRU Alumina Monitor price per LT for spot Trombetas bauxite per LT for the calendar quarter ending 30 September of the previous year and the average CRU Alumina Monitor price per LT for spot Trombetas bauxite for the calendar quarter ending 30 September of the current fiscal year's contract modification. Accordingly, the bauxite price for FY 2000 shall be the FY 1999 bauxite price factored by the CRU Alumina Monitor formula
- c.** If the variation in the CRU Alumina Monitor price is greater than fifteen percent (15%) up or down from the CRU Alumina Monitor price used to determine the previous fiscal year's price adjustment, then neither the Contractor nor the Defense National Stockpile Center (DNSC) shall be obligated to buy or deliver bauxite; however, the Contractor and the DNSC may mutually agree on a bauxite price for the fiscal year in question. Any agreement for the price of bauxite entered into under this paragraph c. shall be treated as establishing the recognized base price for bauxite against which the CRU Alumina Monitor bauxite price variation shall be factored for adjusting the price of bauxite for the succeeding fiscal year.

B.5 Late Submissions, Modifications, and Withdrawals of Offers (JUL 97)

- a.** Any Offer received at the office designated in the solicitation after the exact time specified for receipt of offers will not be considered unless it is received before award is made and it—
- (1)** Was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been mailed by the 15th);
 - (2)** Was sent by mail (or telegram or facsimile, if authorized) or hand-carried (including delivery by a commercial carrier) if it is determined by the Government that the late receipt was due primarily to Government mishandling after receipt at the Government installation;
 - (3)** Was sent by U.S. Postal Service Express Mail Next Day Service-Post Office to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of offers. The term “working days” excludes weekends and U.S. Federal holidays; or
 - (4)** Was transmitted through an electronic commerce method authorized by the solicitation and was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of offers
 - (5)** There is acceptable evidence to establish that it was received at the activity designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers, and the Contracting Officer determines that accepting the late offer would not unduly delay the sale; or
 - (6)** It is the only offer received..
- b.** Notwithstanding paragraph **a.** of this provision, the only acceptable evidence to establish the time of receipt of a facsimile offer transmitted to a number other than that listed in Section **B.6** is the time/date stamp manually recorded by Government personnel, other documentary evidence maintained by the installation, or oral testimony or statements of Government personnel. In no event will the time/date annotated by a facsimile machine located at a number other than that listed in Section **B.6** be acceptable evidence to establish the timeliness of an offer.
- c.** Any modification of a offer, including a modification resulting from the Contracting Officer's request for "best and final" offer, is subject to the same conditions as in subparagraphs a. (1) through a. (5) of this provision.
- d.** The only acceptable evidence to establish the date of mailing of a late offer or modification sent either by U.S. Postal Service registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date or the offer or modification shall be processed as if mailed late. “Postmark” means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal

Service on the date of mailing. Therefore, offerors should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

- e. Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the offer wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.
- f. The only acceptable evidence to establish the date of mailing of a late offer, modification, or withdrawal sent by Express Mail Next Day Service-Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph d. of this provision, excluding postmarks of the Canadian Postal Service. Therefore, offerors should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.
- g. Notwithstanding paragraph a. of this provision, a late modification of an otherwise successful offer that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.
- h. Offers may be withdrawn by written notice or telegram (including mailgram) received at any time before award. If the solicitation authorizes facsimile offers, offers may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision entitled "Facsimile Submissions". Offers may be withdrawn in person by an offeror or an authorized representative, if the representative's identity is made known and the representative signs a receipt for the offer before award.
- i. If an emergency or unanticipated event interrupts normal Government processes so that offers cannot be received at the office designated for receipt of offers by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation or other notice of an extension of the closing date, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office.

B.6 Facsimile Submissions (JUL 97)

Facsimile Offers and modifications will be accepted any time prior to the exact time set for receipt of offers. Facsimile withdrawals will be accepted any time before award. **Offerors must use the facsimile number: (703) 767-5541.**

- a. Definition: "Facsimile submission," as used in this Solicitation, means an offer, modification of an offer, or withdrawal of an offer that is transmitted to and received by the Government via electronic equipment that communicates and reproduces both printed and handwritten material.
- b. Offerors may submit facsimile submissions as responses to this Solicitation. These responses must arrive at the place, and by the time, specified in the Solicitation.
- c. Facsimile submissions that fail to furnish required representations or information, that reject any of the terms, conditions, and provisions of the Solicitation, that contain garbled information, or are otherwise incomplete, may be excluded from consideration.
- d. Facsimile submissions must contain the required signatures.
- e. The Government reserves the right to make award solely on the facsimile submission. However, if requested to do so by the Contracting Officer, the apparently successful Offeror agrees to promptly submit the complete original signed submission.
- f. If the Offeror chooses to transmit a facsimile submission, the Government will not be responsible for any failure attributable to the transmission or receipt of the facsimile submission including, but not limited to, the following:
 - (1) Receipt of garbled or incomplete submission.
 - (2) Availability or condition of the receiving facsimile equipment.
 - (3) Incompatibility between the sending and receiving equipment.
 - (4) Delay in transmission or receipt of submission.
 - (5) Failure of the Offeror to properly identify the submission.
 - (6) Illegibility of submission.
 - (7) Security of submission data.

B.7 Consideration of Offers (FEB 98)

- a. The Government reserves the right to --
 - (1) Reject any or all offers;
 - (2) Waive any informalities and minor irregularities in an offer;

- (3) Award a quantity less than the quantity offered on or at the unit price offered;
 - (4) Accept any one item or group of items in an offer, as may be in the best interest of the Government.
 - (5) Award quantities in excess of that stated as being available for sale.
- b. Offerors may submit multiple offers at various unit prices and may specify a maximum quantity.
 - c. The Government may request specific pricing documentation to support the offer submitted. Failure to provide the documentation, if requested, may result in the Offeror being ineligible for award. Pricing data will be treated as proprietary and will not be released by the Government.
 - d. "All or none" offers will not be considered.

B.8 Evaluation of Offers (MAR 98)

- a. **General**-The evaluation factors are listed below in descending order of importance:
 - (1) Unit price.
 - (2) Payment terms.
 - (3) Removal schedule.

All evaluation factors other than unit price, when combined, are significantly less important than unit price.

- b. To be considered, offers must meet the following minimum requirements:
 - (1) Submission of the information requested in Section **B.1**;
 - (2) Submission of a removal schedule which meets or exceeds the provisions of Section **E.1**.
 - (3) If the offer is for more than one year, compliance with **A.1.c**.
 - (4) Compliance with **B.7.d**.
- c. Requests for payment terms will be considered only from offerors with a satisfactory performance and payment record with DNSC and a satisfactory current Dun & Bradstreet Report. The maximum acceptable payment term is net 30 days.

B.9 Negotiation Procedures (DEC 97)

The Government intends to evaluate offers and award a contract after conducting discussions with all offerors whose offers have been determined to be within the competitive range. However, the Government reserves the right to award without discussions. Accordingly, offerors are advised to include their best possible terms in their initial offer.

If the Government determines that holding discussions is in its best interest, the following procedure will be utilized:

- a. **Competitive Range** - The competitive range shall be determined on the basis of price and other factors that are stated in the solicitation and will include all offers which comply with

Section **B.8.b.** that have a reasonable chance of being selected for award. Offers not included in the competitive range will not be given further consideration.

b. **Negotiations/Discussions** - Only offerors within the competitive range will be contacted to schedule the day and time for discussions to be conducted. Negotiations will be conducted only with the company official signing **Section I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)** or a specifically authorized individual identified in **Section I.8 Authorized Negotiators (JUN 95)**. The content and extent of the discussions is a matter of the Contracting Officer's judgment, based on the particular facts of the sale and each offeror's initial offer.

c. **Discussion Session** - Only one discussion session per offeror is intended. In order to facilitate meaningful discussions, offerors should:

(1) Be prepared to discuss:

- (A) Only those prices and terms included in the initial offer;
- (B) Supporting documentation and justification for the derivation of prices offered;
- (C) Payment terms;
- (D) Removal schedule; and

(2) Arrange to have appropriate support personnel present during discussions, i.e., Purchasing, Marketing, etc.

d. **Best and Final Offer Requests** - At the conclusion of discussions, all offerors with which discussions were conducted will be requested to submit a best and final offer (BAFO). Oral requests for best and final offers will be confirmed in writing. Each individual BAFO request will include the following:

- (1) Notice that discussions are concluded;
- (2) Time and date by which BAFOs must be submitted;
- (3) Notice that BAFOs are subject to **Section B.5 Late Submissions, Modifications, and Withdrawals of Offers (JUL 97)**;
- (5) A record of negotiated issues and understandings between the Government and the offeror (as applicable);
- (6) A list of remaining questions/deficiencies (if any);
- (7) A caution to offerors to provide supporting documentation for any changes to their prior offers as revised during discussions; and
- (8) Notice that the Government intends to evaluate best and final offers and award a contract without further discussions.

e. **Best and Final Offer Responses** - BAFOs should strictly conform to the best and final offer request. If no response is received to the BAFO request, the initial offer will be considered as the best and final offer. Changes which are not fully supported by documentation may not be evaluated or considered.

f. **Subsequent Discussions/BAFO Requests** - Generally, only one best and final offer will be requested. After receipt of best and final offers, discussions will not be reopened unless the Government determines it is in its best interest to do so. If discussions are reopened, an additional request for best and final offers will be issued to all offerors still within the competitive range.

B.10 Disclosure of Information (JUL 97)

Proprietary or confidential information disclosed in offers/discussions/BAFOs will not be disclosed to the public or used by the Government except for evaluation purposes

B.11 Responsibility Determination (JUN 95)

No award shall be made unless the Contracting Officer makes an affirmative determination of responsibility. To be determined responsible, an Offeror shall, at a minimum, have adequate financial resources, a satisfactory performance record, and a satisfactory record of integrity and ethics. For example, an Offeror may be determined to be non-responsible and therefore ineligible for award if there is a record of poor payment (e.g., checks returned for insufficient funds) or poor performance (e.g., failure to pay for or remove material on time).

B.12 Contract Award (JUL 97)

A written award or acceptance of an offer signed by the Contracting Officer and furnished to a successful Offeror within the time specified for acceptance shall result in a binding contract incorporating all the terms and conditions of this Solicitation unless otherwise stated in the executed Section **I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)**.

B.13 Unsuccessful Offerors (FEB 98)

The Contracting Officer will notify unsuccessful offeror(s) at the earliest practicable time of the basis for non-award.

SECTION C – INSPECTION /SAMPLING (FEB 98)

- a.** Offerors, or their designees are invited, at their expense, to visually inspect the Metallurgical Grade Bauxite, Surinam type, at the storage location and be provided a grab sample not to exceed 50 pounds per pile prior to submitting an offer. The Government does not warrant any grab sample to be representative of the entire pile sampled.
- b.** Requests for an appointment to inspect/sample the material must be made in writing or by facsimile submission on company letterhead to the Point of Contact identified in Section J.2 Storage Locations, at least five (5) working days prior to the date of the inspection/sampling. Requests will be consolidated and inspection and sampling will be conducted for all interested Offerors at the same time. Offerors will be notified by telephone of the date the material will be available for inspection and sampling. The Government will take the sample and any Offeror not present can request that a sample portion be mailed to them.
- c.** All requests shall include the name and title of each individual wishing to inspect and receive a grab sample of the material. The Government reserves the right to limit the number of individuals seeking access to any site.

SECTION D - PAYMENT**D.1 Payment (JUL 97)**

- a. Payment shall be made in U.S. dollars.
- b. Payment shall be made by wire transfer, U.S. Postal Service money order, or company or bank check.
 - (1) Wire transfer payment shall be made in accordance with instructions in **Section J.5**. Fees for wire transfers are the responsibility of the Contractor. If payment is by wire transfer and the wrong account number is used, shipment of material may be delayed by up to one week or the wire transfer may be returned to the sender.
 - (2) All checks must be drawn on a U.S. domestic bank or on the United States branch of an acceptable foreign bank and must be payable in United States currency. **A service charge of \$100.00 will be applied to all returned checks.**
- c. Payment shall be made to the **Defense Finance and Accounting Service - Columbus (DFAS-Columbus)**. If a check is not made payable to DFAS-Columbus, the check may be returned and the \$100.00 fee stated in **D.1.b.(2)** charged. Payment shall be accompanied by **identifying information including the contract number, invoice number, and a description of the material purchased**. Payments without the required identification may be returned and shipment delayed. Payments shall be sent to:

ATTN: DNSC-DF, Accounts Receivable
Defense National Stockpile Center
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand Delivered)
Fort Belvoir, VA 22060-6223
- d. Invoices issued for adjustments for variations in quantity or weight, storage charges, or interest shall be paid promptly.
- e. If payment is not made in full within 30 calendar days of issuance of an invoice, the Government will issue a "demand" letter, demanding payment of the outstanding amount. If all moneys due are not paid within 30 calendar days after the date of the Government's demand letter, the Contractor will be considered delinquent and any outstanding charges will be reduced by any subsequent payments. No material will be released until all delinquent charges are paid. (See Sections **F.1.a.** and **G.11.**)

D.2 Payment Due Date (JUL 97)

- a. Unless otherwise specified in the contract, payment shall be made before shipment of material and before the time specified in the executed Section **I.1 Sale of Government Property Negotiated Sales Contract (Jul 97)**. If payment is not received by 11:00 a.m., local time, on the payment due date, payment will not be credited until the next Government business day. Interest and storage charges will accrue accordingly.
- b. In the event the payment due date falls on a Saturday, Sunday, or holiday, then the payment due date will be extended to the next Government business day.

D.3 Interest (JUL 97)

- a. All amounts that become payable by the Contractor to the Government under this contract shall bear simple interest from the date due until paid. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in 41 U.S.C. 611, which is applicable to the period in which the amount becomes due, as provided in paragraph **b.**, below.
- b. Amounts shall be due at the earliest of the following dates:
 - (1) The final day of the contract period specified in Section **I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)**; or
 - (2) The date of the first written demand for payment under the contract.

SECTION E - REMOVAL**E.1 Removal of Material (AUG 97)**

- a. The contract period is based on the quantity of material awarded and begins on the date of contract award. The contract period is as follows:

<u>Quantity (LDT)</u>	<u>Removal Period (Calendar Days)</u>
10,000 – 50,000	180 days
over 50,000	365 days

- b. If the Contractor fails to pay for and remove the material in accordance with the schedule specified in the contract, the Contractor will be considered delinquent and no material will be shipped until payment has been made.
- c. The contract period excludes Saturdays, Sundays, and holidays. If the last day of the contract period is a Saturday, Sunday, or holiday, or the storage location is otherwise closed that day, the period of contract performance will be extended to the next Government workday.

E.2 Storage Charges (JUL 97)

- a. Storage charges shall be assessed on all material not removed in accordance with the contract period. The Government reserves the right to remove any remaining material to a commercial storage facility and be reimbursed by the Contractor for any expenses incurred. Storage charges continue to accrue until all the material has been removed or the contract is terminated for default, in which case the Contractor will be liable for damages, as set forth in Section **G.8 Default** of the Solicitation.
- b. The storage charge is the greater of the following:
- (1) \$0.005 per LDT (if a fraction of a LDT remains, the charge will be for a full LDT) per 30 day period regardless of whether the material remains in storage a period of 30 days or less than 30 days; or
 - (2) commercial storage charges, if applicable.
- c. Storage charges will be invoiced upon shipment. Payment shall be made promptly.
- d. Payment of storage charges shall not relieve the Contractor of its obligation to remove the material in a timely manner. Acceptance of storage payments by the Government is not a waiver of the Government's right to default the Contractor for failure to remove the material (See Section **G.8 Default**).

SECTION F - SHIPPING**F.1 Request for Shipment (FEB 98)**

- a. Handling and outloading shall be by and at the Contractor's expense. At least 10 working days prior to the date of shipment is required to commence the Contractor shall furnish to the designated depot, commercial bills of lading. Simultaneously the Contractor shall complete and fax the form in Section **J.3 Shipping Instructions** to the Contracting Officer. The Government will only accept shipping instructions from those individuals designated in Section **I.9** as being authorized to request shipment of material on behalf of the Contractor. **No material will be released until all outstanding delinquent charges and payments have been satisfied.**
- b. "Shipping Instructions" shall include the following:
 - (1) Quantity of material to be shipped.
 - (2) Designation of type and kind of conveyance.
 - (3) Name of the carrier (please include a telephone number where this contact can be reached).
 - (4) "Ship to" location.
 - (5) Minimum load per conveyance (optional).
 - (6) Desired shipping schedule.
 - (7) Name and telephone number of an agent who can furnish additional shipping information if needed.
 - (8) Any additional pertinent information.
- c. The shipping schedule shall allow sufficient time for the Government to reasonably meet such schedule prior to the last day of the contract removal period commensurate with existing loading facilities and other commitments at the Government's storage locations. Information regarding Government commitments may be obtained from the address specified in Section **J.2**.
- d. Outloading can be accomplished by truck at all storage locations. Outloading can be accomplished by truck and rail at the Anniston, AL, location, by truck and barge at the Granite City, IL location, and by truck, rail, and barge at the Theodore, AL location (See J.2, Storage Location). The Contractor will be responsible for all outloading costs and performance.
- e. The Contractor, its agent and employees shall comply with all applicable rules at the storage depot; Federal, State and local load limitations; and all safety, health, and environmental requirements.

- f. Requests for shipment shall be for a minimum of 1,000 LDT, or if the location balance is less than this quantity, for the balance at that particular location. Shipping instructions and information requested in paragraph a., above, are to be furnished to the following address:

Defense National Stockpile Center
ATTN: Metallurgical Grade Bauxite, Surinam Type Contracting Officer
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand delivered)
Ft. Belvoir, VA 22060-6223
Facsimile Number: (703) 767-5484

- g. The Government shall determine the order in which the material is scheduled, coordinated, and outloaded.
- h. The Contractor shall pay \$100 per day if the Contractor's conveyance fails to report to an unstaffed storage location as scheduled. See Section **J.2** for identification of unstaffed locations.

F.2 Insurance Requirements (APR 95)

The Contractor shall procure and maintain, and require any subcontractor to procure and maintain, during the entire period of performance under this contract, such insurance as stipulated herein.

- a. Workers' compensation and employer's liability. The Contractor is required to comply with applicable Federal and State workers' compensation and occupational disease statutes. Employer's liability coverage of at least \$100,000 is required, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.
- b. General liability. Bodily injury liability insurance coverage written on the comprehensive form of policy of at least \$500,000 per occurrence.
- c. Automobile liability insurance written on the comprehensive form of policy is required. The policy shall provide for bodily injury and property damage liability covering the operation of all automobiles used in connection with performing the contract. Policies covering automobiles operated in the United States shall provide coverage of at least \$200,000 per person and \$500,000 per occurrence for bodily injury and \$20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.

F.3 Weighing (JAN 95)

- a.** Conveyance (truck, van, or railroad cars as applicable by location) shall be light (tare) and heavy weighed (gross), with the tare weight of the conveyance deducted to arrive at the net weight of the material. The stenciled tare weight of a railroad car and the actual tare weight of trucks or vans shall be used. Weighing shall be done by and at the expense of the contractor. All weighing shall be witnessed by a Government representative, with the exception of weighing on railroad scales which will be witnessed by the railroad. Weighing shall be done on the nearest railroad scale or nearest public truck scale.
- b.** A Government representative shall certify the correctness of the weighing method used and that the truck scales have been inspected and certified. The contractor will provide certified scale tickets within ten working days after the entire requested release quantity has been shipped, or at the end of each week's shipment, whichever is sooner.
- c.** Weight certificates shall be provided at the expense of the Government. Scale tickets shall be provided by the contractor to the Government representative on site. Outbound Storage Reports will be issued by the Government and will be final for payment purposes.

F.4 Moisture Determination

- a. Moisture determination shall be made in accordance with standard commercial procedures by an independent sampler/analyst, to be designated by the contractor and acceptable to the Government, with the results of such analyses being final and binding. Certificates of moisture shall be furnished simultaneously to both parties by the independent sampler/analyst.
- b. The independent sampler/analyst shall furnish to the Government for review and approval of the proposed sampling methods and moisture analysis procedures prior to outloading. These documents, as well as the certificate of moisture, shall be forwarded to:

Directorate of Strategic Materials Management
Defense National Stockpile Center
8725 John J. Kingman Road, Suite 4616
Fort Belvoir, VA 22060-6223
FAX: (703) 767-7716

- c. The net weight, as determined in Section **F.3**, less the moisture content represented by the sample taken (in accordance with paragraph a. above) shall be used to determine the dry weight expressed dry tons of material. The dry ton weight determination shall be final for the computation of the dollar value of the Metallurgical Grade Bauxite, Surinam Type.
- d. The contractor shall make the necessary arrangements to procure the services of the independent sampler/analyst and the Contractor shall bear the cost of these services.
- e. Should moisture determination by an independent sampler/analyst be waived by the Contractor, the wet weight at time of outloading will be recorded as dry weight for payment purposes.

F.5 Assumption of Risk and Disclaimer of Liability (JUL 97)

The Contractor, its assigns or agents, assumes full responsibility for all injury or damage to persons or property occasioned by or occurring in connection with or incident to any use or possession of this material. The Government assumes no liability for any damages to the property of the Contractor or any other person or property, or for any personal injury, illness, disability or death to the Contractor, Contractor's employees or any other person subject to Contractor's control, or for any other consequential damages arising from or incident to the purchase, use, loading, processing, disposition, or any subsequent operation performed upon, exposure to or contact with any component, part, constituent or ingredient of this item, material or substance.

F.6 Adjustment for Variation in Quantity or Weight (JAN 95)

The Government reserves the right to vary the quantity or weight delivered by 10 (ten) percent from the quantity or weight listed in the Solicitation and the Contractor agrees to accept delivery of any quantity or weight within these limits. The contract price will be adjusted upward or downward in accordance with the unit price and on the basis of the quantity or weight actually delivered.

F.7 Environmental Protection (JUN 95)**a. Transportation Requirements**

- (1) The transportation of hazardous material is governed by Department of Transportation (DOT) Hazardous Materials Regulations (Title 49 Code of Federal Regulations, Parts 170-189). If the material being transported is covered by DOT Regulations, the Contractor or its agent is responsible for certifying to DOT that hazardous materials are properly classified, described, packaged, marked, and labeled and are in a condition safe to transport based on the Contractor's or its agent's own examination of the material. (See especially 49 CFR 173.7(a)(1).)
- (2) The Government reserves the right to conduct reasonable inspection of the Contractor's or its agent's transportation conveyances or other equipment utilized to effect removal of the material purchased under this Solicitation. Inspection may occur prior to, during, or subsequent to removal of the material from Government storage locations. The Contractor or its agent shall provide Government representatives with access and any reasonable assistance required to conduct this inspection.

b. Material Safety Data Sheets

- (1) Offerors are warned that unprotected exposure to hazardous substances, hazardous materials and hazardous chemicals may significantly increase the risk of health problems. The Contractor shall comply with all applicable Occupational Safety and Health Administration (OSHA) and any other Federal, state or local laws, codes, ordinances, and regulations (including obtaining any required licenses or permits) governing exposure to, and storage, handling, transportation, and disposition of, this material.
- (2) Material Safety Data Sheets as required by OSHA Hazard Communication Standard - 29 CFR 1910.1200 are incorporated herein. (See Section **J.4**) This data provides specific toxicity and health related data for the protection of human health and the environment. Offerors should review this information carefully. It is the responsibility of the Contractor to further communicate this information to the distributor, manufacturer, user and/or transporter of this material as may be required by Federal regulations.
- (3) Offerors shall also refer to 29 CFR 1910 Occupational Safety and Health Standards, specifically sections 1910.1000 through 1050. These occupational standards set standards for permissible exposures, methods of compliance, personal protective equipment, and other measures that must be taken when working with, or in proximity to, hazardous materials, chemicals and substances in the United States and its territories and possessions.

c. Use and Disposition

- (1)** The Contractor certifies that it shall use and ultimately dispose of any hazardous material purchased under this Solicitation in accordance with all applicable Federal, state, local and international laws and regulations and in a manner safe for the public and the environment.
- (2)** The material offered under this Solicitation is not, in its present form, subject to EPA Hazardous Waste Regulations (40 CFR Part 260, et seq.) issued under the Resource Conservation and Recovery Act. However, it is possible that use of this material will lead to the creation of a hazardous waste. 40 CFR Part 260, et seq., details the responsibilities of generators, transporters, treaters, storers, and disposers of hazardous waste. Failure to comply with these regulations can lead to civil and criminal penalties.
- (3)** The wood pallets or materials used to package the commodity sold under this Solicitation may have been treated with a wood preservative to protect it from insect attack and decay. These preservatives penetrate and remain in the wood for a long time and may pose certain hazards if precautions are not taken during the handling, use, and disposal of these treated wood products. Treated wood products should not be burned in open fires. Contractors are encouraged to seek advice on proper disposal from the local environmental protection agency.

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 Effective Period (JAN 95)

This Solicitation shall be in effect until withdrawn by the Government or superseded by another Solicitation.

G.2 Amendments and Modifications (JAN 95)

- a. Changes in terms and conditions of this Solicitation shall be accomplished by written amendment only.
- b. Changes in terms and conditions of any resulting contract shall be accomplished only by written modification signed by the Contracting Officer.

G.3 Title (JAN 98)

Title to the material shall pass to the Contractor upon execution of the contract; however, removal is subject to the remaining terms and conditions of the solicitation and any resulting contract.

G.4 Risk of Loss (JAN 98)

- a. Prior to the date specified for removal, the Government shall be responsible only for the exercise of reasonable care for the protection of the material.
- b. After the date specified for removal, or any extension approved in writing by the Contracting Officer, all risk of loss, damage, or destruction from any cause whatsoever, shall be borne by the Contractor.

G.5 Limitation on Government's Liability (JAN 95)

- a. Except as provided in paragraph b., in any case where liability of the Government to the Contractor has been established, the measure of the Government's liability shall not exceed a refund of whatever portion of the purchase price the Contractor has paid.
- b. Where specifically authorized in writing by the Contracting Officer, the Contractor may recover reasonable costs of packing, loading, and transportation incurred in connection with return of material to the Government.

G.6 Protests (FEB 97)

- a. Companies protesting any resultant sale under this solicitation may file a protest 1) with the Contracting Officer (see paragraph d.1) , or 2) with the General Accounting Office (see paragraph e), or 3) pursuant to Executive Order 12979, with the activity for a decision at a level above the Contracting Officer (see paragraph d.2). Protests filed with the activity should be addressed to the Contracting Officer, but should clearly state that they are an “Agency Level Protest under Executive Order 12979.” (This process allows for a higher level decision on the initial protest; it is not a review of a Contracting Officer’s decision on a protest filed with the Contracting Officer.) Absent a clear indication of the intent to file an agency level protest, protests will be presumed to be protests to the Contracting Officer.

b. Protests Before Award

Protests before award may be filed not later than 10 calendar days after the basis of protest is known or should have been known, whichever is earlier, Protests may be filed directly with DNSC only or with the General Accounting Office (GAO).

c. Protests After Award

Protests after award shall be filed not later than 10 calendar days after the basis of protest is known or should have been known, whichever is earlier, with the exception of protests challenging a sale conducted on the basis of competitive proposals under which a debriefing is requested and when requested is required. In such cases, the initial protest shall not be filed before the debriefing date offered to the protester, but shall be filed not later than 10 calendar days after the date on which the debriefing is held and the basis of protest is known or should have been known, whichever is earlier. Protests must be in writing and may be filed directly with the Contracting Officer, with the DNSC or with the GAO.

d. Service of Protest

- (1) Protests shall be served on the Contracting Officer by obtaining written and dated acknowledgment of receipt from:

Attn: DNSC-P – (Insert name of the Contracting Officer)
Defense National Stockpile Center
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand delivered)
Ft. Belvoir, VA 22060-6223

- (2) Protests shall be served on the DNSC for a decision at a level above the Contracting Officer by obtaining written and dated acknowledgment of receipt from:

Attn: DNSC-P, Director, Director of Stockpile Contracts
Defense National Stockpile Center
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand delivered)
Ft. Belvoir, VA 22060-6223

e. Receipt of Protest

A copy of the protest shall be received in the office designated above, within one day of filing a protest with the GAO at the following address:

U.S. General Counsel
Attn: Procurement Law Control Group
U.S. General Accounting Office
441 G Street, NW
Washington, DC 20548

G.7 Disputes (JAN 95)

- a. This contract is subject to the Contract Disputes Act of 1978 (41 U.S.C. 601-613) (the Act).
- b. Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.
- c. "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. A claim arising under a contract, unlike a claim relating to that contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified as required by subparagraph **d.(2)** below. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this paragraph, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- d.
 - (1) A claim by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be by written decision of the Contracting Officer.
 - (2) For Contractor claims exceeding \$100,000, the Contractor shall submit with the claim a certification that-
 - (i) The claim is made in good faith;
 - (ii) Supporting data are accurate and complete to the best of the Contractor's knowledge and belief; and
 - (iii) The amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable.
 - (3) (i) If the Contractor is an individual, the certification shall be executed by that individual.

- (ii) If the Contractor is not an individual, the certification shall be executed by -
 - (A) A senior company official in charge at the Contractor's plant or location involved; or
 - (B) An officer or general partner of the Contractor having overall responsibility for the conduct of the Contractor's affairs.
- e. For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.
- f. The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.
- g. At the time a claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative means of dispute resolution. When using alternative dispute resolution procedures, any claim, regardless of amount, shall be accompanied by the certificate described in paragraph **d(2)** of this clause, and executed in accordance with paragraph **d(3)** of this clause.
- h. The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (properly certified if required), or (2) the date payment otherwise would be due, if that date is later, until the date of payment. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.
- i. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

G.8 Default (JUL 97)

- a. (1)The Government may, by written notice of default to the Contractor, terminate this contract in whole or in part if the Contractor fails to -
 - (i) Make payment and remove the material within the time specified in this contract or any extension;
 - (ii) Remove the material within the time specified in this contract irrespective of whether or not payment has been made;
 - (iii) Make progress, so as to endanger performance of this contract; or
 - (iv) Perform any of the other provisions of this contract.

(2) The Government's right to terminate this contract under (a)(i) through (a)(iv) above, may be exercised if the Contractor does not cure such failure within 10 days (or more if authorized in writing by the Contracting Officer) after receipt of the notice from the Contracting Officer specifying the failure. If at any time prior to the expiration of this contract, the Contractor makes it clear either by words, actions or circumstances, that the Contractor is unwilling or unable to perform under this contract, the Government shall not be required to furnish the Contractor notice specifying a failure under this contract, prior to exercising its right to terminate this contract for default and seek damages.

(3) Upon the Contractor's failure to cure such default within that period (or such further period as the Contracting Officer may allow), the Contractor shall lose all right, title and interest which it might otherwise have acquired in and to the material as to which a default has occurred.

- b.** If the Government terminates the contract, the Contractor shall be held liable for damages as described below. However, in no event will damages exceed the original contract price.
- c.** If the Government terminates the contract for default, it may subsequently resell the material for the Contractor's account, under the terms and in the manner the Contracting Officer considers appropriate, and assess the Contractor the difference between the contract price and the price obtained on resale. In no event will the Contractor be refunded any money if the Government obtains a greater price on resale, nor will an accounting of money be made until resale is complete. In the event that the Government does not succeed in reselling the material within 12 months, the Contractor may be held liable for the full contract price for the quantity of material on which the default has occurred. In order to calculate the Government's damages on contracts where the contract price is determined on a formula-price basis, the Government will establish the contract price for the quantity of material on which the default has occurred as follows: Using the pricing mechanism set forth in the contract, the Government will set the price as though the material had been priced on the last day of the contract period or the date of the termination notice, whichever is earlier.
- d.** The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

G.9 Termination for Convenience of the Government (DEC 97)

- a.** The Contracting Officer, by written notice, may terminate this contract, in whole or in part, when it is in the Government's interest. If this contract is terminated, the Government shall only be liable for actual costs incurred by the Contractor before the effective date of termination.
- b.** If a bona fide requirement for the material develops or exists prior to removal of the material from Government control, the Government may withdraw that material from the sale. In the event of a withdrawal under this condition, the Government shall be liable only for the refund of the contract price of the withdrawn material or such portion of the contract price as it may have received plus simple interest at the rate established by the Secretary of the Treasury.

G.10 Excusable Delays (MAY 95)

- a. In the event either party should be prevented from performing under this contract by reason of any unforeseeable cause beyond its control and without its fault or negligence, including, but not restricted to, acts of God or of the public enemy, sovereign acts of the United States, acts of a foreign Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and unusually severe weather, performance under the contract shall be suspended in whole or in part until the cause ceases to exist and thereafter the time for fulfillment of the contract shall be extended by the length of time during which the cause prevented performance under the contract.
- b. This section shall also apply to an excusable delay condition that prevents delivery at a consignee's plant if-
 - (1) the delay meets the criteria in paragraph a. above; and
 - (2) the identity of the consignee is known to the Government prior to commencement of the excusable delay condition.
- c. The Contractor shall notify the Contracting Officer, in writing, of the nature and extent of the excusable delay condition promptly after the commencement thereof, but in any event prior to outloading of the material from the storage location from which it is to be shipped. The Contractor shall notify the Contracting Officer, in writing, within ten (10) calendar days when the excusable delay condition ceases to exist.

G.11 Setoff of Funds (APR 96)

The Contractor agrees that the DLA may use all or a portion of any monies received by DLA to satisfy, in whole or in part, any debt (e.g. delinquent payments, interest or storage charges), arising out of this or any other transaction.

G.12 Indemnification Agreement (JUN 96)

The Contractor shall save and hold harmless and indemnify the Government against any and all liabilities, claims, and costs of whatsoever kind and nature for injury to or death of any person or persons and for loss or damage to any property (Government or otherwise) occurring in connection with or in anyway incident to or arising out of the occupancy, use, service, operations, or performance of work in connection with the contract. Whether due to negligence or not of the Contractor, the Contractor agrees to defend any and all claims or suits against the United States, whether well founded or not, in any way whatsoever alleged to have arisen from or been connected with performance of this contract and to reimburse the United States for any legal expenses (including salaries of attorneys) incurred by the United States in defending such suits.

G.13 Covenant Against Contingent Fees (JAN 95)

- a.** The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to add to the contract price or consideration, or otherwise recover, the full amount of the contingent fee.
- b.** "Bona fide agency," as used in this paragraph, means an established commercial or selling agency, maintained by a Contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.
- c.** "Bona fide employee," as used in this paragraph, means a person, employed by a Contractor and subject to the Contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.
- d.** "Contingent fee," as used in this paragraph, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.
- e.** "Improper influence," as used in this paragraph, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

SECTION H - DEFINITIONS (JUN 95)

As used throughout this Solicitation, the following terms shall have the meaning set forth below:

- a.** The term "Contracting Officer" means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings.
- b.** The term "small business concern" for the purpose of this Solicitation, is a concern, including its affiliates, which is independently owned and operated, is not dominant in the field of operation in which it is Offering on Government contracts, and qualified as a small business under the criteria and size standards in 13 CFR Part 121.
- c.** The terms "Offeror", "Purchaser", or "Contractor" may be used interchangeably.

SECTION I - SUBMITTALS

COMPLETE AND RETURN THE FOLLOWING WITH YOUR OFFER:

I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)

**I.2 Item Offer Page - DLA-Metallurgical Grade Bauxite,
Surinam Type-002** **See Amendment for Available Material*

I.3 Certificate of Independent Price Determination (JUL 97)

**I.4 Certification Regarding Debarment, Suspension, Proposed Debarment,
Environmental Compliance, and Other Responsibility Matters (JUL 97)**

I.5 Type of Business Organization (APR 96)

I.6 Small Business Concern Certification (JAN 95)

I.7 Clean Air and Water Certification (JUN 95)

I.8 Authorized Negotiators (JUN 95)

I.9 Persons Authorized to Request Shipment of Material (FEB 98)

I.10 Offeror's Billing Address (JUL 96)

I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)

SALE OF GOVERNMENT PROPERTY NEGOTIATED SALES CONTRACT	CONTRACT NUMBER	PAGE
	SP0833-	of Pages

This contract is entered into by and between the United States of America, hereinafter called the "Government," represented by the Contracting Officer executing this contract and the Contractor identified below. The Government agrees to sell and the Contractor agrees to buy the material described below in accordance with the terms and conditions of DLA-Metallurgical Grade Bauxite, Surinam Type-002. In the event of a conflict between the terms of the Solicitation and this Negotiated Sales Contract, the terms of the Negotiated Sales Contract govern.

<i>ITEM</i>	<i>PROPERTY DESCRIPTION AND LOCATION</i>	<i>QUANTITY (No. of Unit(s))</i>	<i>UNIT</i>	<i>UNIT PRICE</i>	<i>AMOUNT</i>
	Metallurgical Grade Bauxite, Surinam Type				
CONTRACT PERIOD EXPIRES ON:					

EXECUTION BY CONTRACTOR	EXECUTION BY GOVERNMENT
--------------------------------	--------------------------------

<i>DATE (Day, Month, Year)</i>	<i>UNITED STATES OF AMERICA</i>	<i>DATE:</i>
	<i>BY:</i>	

<i>NAME OF CONTRACTOR</i>	
---------------------------	--

<i>ADDRESS (Street, City, State & Zip Code) (Type or Print)</i>	<i>NAME AND TITLE OF CONTRACTING OFFICER</i>
Telephone Number: _____ Facsimile Number: _____	_____

<i>SIGNATURE AND TITLE OF PERSON AUTHORIZED TO SIGN THIS CONTRACT (Type or print name and title under signature)</i>	Contracting Officer _____ _____ (Agency)
--	--

I.2 Item Offer Page -

**See Amendment for Available Material*

I.3 Certificate of Independent Price Determination (JUL 97)

- a.** The Offeror certifies that:
- (1)** The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to:
 - (a)** those prices,
 - (b)** the intention to submit an offer, or
 - (c)** the methods or factors used to calculate the prices offered;
 - (2)** The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before Offer opening (in the case of a sealed Offer Solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and
 - (3)** No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit a offer for the purpose of restricting competition.
- b.** Each signature on the offer is considered to be a certification by the signatory that the signatory:
- (1)** Is the person in the offeror's organization responsible for determining the prices being offered, and that the signatory has not participated and will not participate in any action contrary to subparagraphs **a.**(1) through **a.**(3) above; or
 - (2)** **(i)** Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs **a.**(1) through **a.**(3), above

(insert full name of person(s) in the Offeror's organization responsible for determining the prices Offer, and the title of his or her position in the Offeror's organization);

 - (ii)** As an authorized agent, does certify that the principals named in subdivision **b.**(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs **a.**(1) through **a.**(3) above; and
 - (iii)** As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs **a.**(1) through **a.**(3) above.
- c.** If the offeror deletes or modifies subparagraph **a.**(2) above, the Offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

I.4 Certification Regarding Debarment, Suspension, Proposed Debarment, Environmental Compliance and Other Responsibility Matters (JUL 97)

a (1) The Offeror certifies, to the best of its knowledge and belief, that -

(a) The Offeror and/or any of its Principals -

- (i) Are are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;
- (ii) Have have not , within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of Offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and
- (iii) Are are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision a. (1)(i)(B) of this provision.
- (iv) Are are not presently indicted for or otherwise criminally or civilly charged by a Federal, state or local entity with violation of any environmental laws;
- (v) Have have not within the three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for violation of a Federal, state or local environmental statute or regulation.

(b) The Offeror has has not , within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

- (2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).
- (3) If the Offeror answers affirmatively to anything in a.(1), above, the Offeror shall include in its Offer an explanation of the circumstances, including the outcome.

This certification concerns a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under section 1001, title 18, United States Code.

- b. The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- c. A certification that any of the items in paragraph a. of this provision exists will not necessarily result in withholding of an award under this Solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.
- d. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph a. of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- e. The certification in paragraph a. of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to the other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this Solicitation for default.

I.5 Type of Business Organization (APR 96)

The Offeror represents that--

- a. It operates as a corporation incorporated under the laws of the State of _____, an individual, a partnership, a nonprofit organization, or a joint venture.
- b. If the Offeror is a foreign entity, it operates as an individual, a partnership, a nonprofit organization, a joint venture, or a corporation registered for business in _____(country),
- c. If the Offeror is a corporation, it is independent (not owned or controlled by another company), owned or controlled by _____ corporation company registered for business in _____ (state/country).
- d. If the Offeror is owned or controlled by another, state the relationship (e.g., wholly owned subsidiary, etc.): _____.
- e. The Offeror agrees to provide additional information relating to the above representations if requested to do so by the Contracting Officer.

I.6 Small Business Concern Certification (JAN 95)

The Offeror represents and certifies as part of its Offer that it is, is not a small business concern. (See Section **H.b.**, for the definition of a small business concern.)

I.7 Clean Air and Water Certification (JUN 95)

- a. The Offeror certifies that it is is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities and that it will not knowingly resell this material to any company that is on the EPA List; and
- b. The Offeror will immediately notify the Contracting Officer, before award, of the receipt of any communication from EPA indicating that any facility at which the Offeror plans to use material purchased under this Solicitation is under consideration to be listed on the EPA List of Violating Facilities.

I.8 Authorized Negotiators (JUN 95)

The Offeror represents that the following individuals are authorized to negotiate on its behalf.

Name

Title

Telephone

Name

Title

Telephone

I.9 Persons Authorized to Request Shipment of Material (FEB 98)

The Offeror shall provide the name(s), title(s), signature(s), and telephone number(s) of representative(s) authorized to sign Section **J.3 Shipping Instructions**):

Typed Name

Title

Signature

Telephone

Typed Name

Title

Signature

Telephone

Typed Name

Title

Signature

Telephone

I.10 Offeror's Billing Address (JUL 96)

The Offeror shall provide its billing address and billing facsimile number below, if different from the address in Section **I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)**

SECTION J – LIST OF ATTACHMENTS

J.1 Metallurgical Grade Bauxite, Surinam Type Analyses (APR 98) *See Amendment for Material Analyses

J.2 Storage Locations (JAN 98) * See Amendment for Storage Location(s)

J.3 Shipping Instructions (JAN 95)

J.4 Material Safety Data Sheets

J.5 Fedwire Procedures (JUN 98)

J.1 Metallurgical Grade Bauxite, Surinam Type Analyses (APR 98)

**See Amendment for Material Analyses*

J.2 Storage Locations

DLA-METALLURGICAL GRADE BAUXITE-SURINAM

**See Amendment for Storage Location(s)*

J.3 Shipping Instructions

Shipping Request Number: _____

SHIPPING INSTRUCTIONS

1. a. Contractor: _____

b. Point of Contact: _____ c. Telephone No.: _____

2. a. DNSC Contract No.: SP0833- _____ b. Commodity: _____

3. Item/Pile: _____

4. Depot: _____

5. a. Quantity: _____

b. Unit Price: _____ c. Total Dollar Value: _____

6. Shipping Method: _____

7. a. Carrier Name: _____

b. Point of Contact: _____ c. Telephone No.: _____

8. Date Shipment Desired: _____

9. Ship To: _____

10. Minimum Load: _____

11. a. Outloader: _____ b. Telephone No.: _____

12. a. Sampler: _____ b. Telephone No.: _____

13. Copy of Payment Attached: Yes No

14. Remarks: _____

15. Contractor's Signature: _____

Date

Telephone

16. Shipment Approved and Authorized: _____

Contracting Officer

Date

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

DEFENSE LOGISTICS AGENCY
DEFENSE NATIONAL STOCKPILE CENTER
8725 JOHN J. KINGMAN ROAD
SUITE 3339
FORT BELVOIR, VA 22060-6223

EMERGENCY TELEPHONE NUMBER:
1-800-424-9300 (NORTH AMERICA)
1-703-527-3887 (INTERNATIONAL)

SUBSTANCE: BAUXITE, METALLURGICAL

TRADE NAMES/SYNONYMS:
DLA02533

CREATION DATE: Jul 01 1992
REVISION DATE: Jun 02 1999

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: ALUMINUM OXIDE
CAS NUMBER: 1344-28-1
EC NUMBER (EINECS): 215-691-6
PERCENTAGE: >55.00

COMPONENT: SILICON DIOXIDE
CAS NUMBER: 7631-86-9
EC NUMBER (EINECS): 231-545-4
PERCENTAGE: <5.00

COMPONENT: IRON
CAS NUMBER: 7439-89-6
EC NUMBER (EINECS): 231-096-4
PERCENTAGE: <3.00

COMPONENT: PHOSPHORUS PENTOXIDE
CAS NUMBER: 1314-56-3
EC NUMBER (EINECS): 215-236-1
PERCENTAGE: <1.00

COMPONENT: MANGANESE DIOXIDE
CAS NUMBER: 1313-13-9
EC NUMBER (EINECS): 215-202-6
PERCENTAGE: <2.00

COMPONENT: CHROMIUM(III) OXIDE
CAS NUMBER: 1308-38-9
EC NUMBER (EINECS): 215-160-9
PERCENTAGE: <2.00

COMPONENT: VANADIUM PENTOXIDE
CAS NUMBER: 1314-62-1
EC NUMBER (EINECS): 215-239-8

PERCENTAGE: <2.00

COMPONENT: WATER
CAS NUMBER: 7732-18-5
EC NUMBER (EINECS): 231-791-2
PERCENTAGE: <33.00

OTHER CONTAMINANTS:
ALKALI OXIDES NOT TO EXCEED 1.00%

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=3 FIRE=0 REACTIVITY=0

EC CLASSIFICATION (CALCULATED): Not determined.

EMERGENCY OVERVIEW:
PHYSICAL DESCRIPTION: Crystals or powder
MAJOR HEALTH HAZARDS: No significant target effects reported.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: irritation, metal fume fever, difficulty breathing
LONG TERM EXPOSURE: same as effects reported in short term exposure, lung damage

SKIN CONTACT:

SHORT TERM EXPOSURE: irritation, itching
LONG TERM EXPOSURE: no information on significant adverse effects

EYE CONTACT:

SHORT TERM EXPOSURE: mechanical irritation
LONG TERM EXPOSURE: no information on significant adverse effects

INGESTION:

SHORT TERM EXPOSURE: no information on significant adverse effects
LONG TERM EXPOSURE: no information on significant adverse effects

CARCINOGEN STATUS:

OSHA: N
NTP: N
IARC: N

SECTION 4 FIRST AID MEASURES

INHALATION: Remove from exposure immediately. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention.

SKIN CONTACT: Remove contaminated clothing, jewelry, and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention, if needed.

EYE CONTACT: Wash eyes immediately with large amounts of water or normal

saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.

INGESTION: If vomiting occurs, keep head lower than hips to help prevent aspiration. Get medical attention, if needed.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard.

EXTINGUISHING MEDIA: dolomite, dry powder for metal fires, sand, graphite, soda ash, sodium chloride

Do not get water directly on material.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

SECTION 7 HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

ALUMINUM OXIDE:

ALUMINUM OXIDE (ALUMINA):

- 5 mg/m3 OSHA TWA (respirable particulate)
- 15 mg/m3 OSHA TWA (total particulate)
- 10 mg/m3 OSHA TWA (total particulate) (vacated by 58 FR 35338, June 30, 1993)
- 10 mg/m3 ACGIH TWA (total particulate)

MEASUREMENT METHOD: Particulate filter; Gravimetric; NIOSH III # 0500, Nuisance Dust (total), # 0600 (respirable)

SILICON DIOXIDE:

SILICON DIOXIDE, AMORPHOUS (SILICA, AMORPHOUS):

- 6 mg/m³ OSHA TWA (<1% crystalline silica)
- 10 mg/m³ ACGIH TWA (Notice of Intended Changes 1994-1995) (total particulate) (<1% quartz)
- 6 mg/m³ NIOSH recommended TWA 10 hour(s)

MEASUREMENT METHOD: Particulate filter; Low-temperature ashing; X-ray diffraction spectrometry; NIOSH III # 7501

IRON:

IRON OXIDE DUST AND FUME (as Fe):

- 10 mg/m³ OSHA TWA (total particulate)
- 5 mg/m³ ACGIH TWA (total particulate)
- 5 mg/m³ NIOSH recommended TWA (total particulate)
- 5 mg(Fe)/m³ UK OES TWA
- 10 mg(Fe)/m³ UK OES STEL

MEASUREMENT METHOD: Particulate filter; X-ray fluorescence spectrometry; NIOSH III # 7200, Welding and Brazing Fume

MANGANESE DIOXIDE:

MANGANESE AND COMPOUNDS (as Mn):

- 5 mg/m³ OSHA ceiling (particulate)
- 1 mg/m³ OSHA TWA (particulate) (vacated by 58 FR 35338, June 30, 1993)
- 3 mg/m³ OSHA STEL (particulate) (vacated by 58 FR 35338, June 30, 1993)
- 0.2 mg/m³ ACGIH TWA (inorganic compounds)
- 1 mg/m³ NIOSH recommended TWA 10 hour(s)
- 3 mg/m³ NIOSH recommended STEL
- 1 mg(Mn)/m³ UK OES TWA
- 5 mg(Mn)/m³ UK OES TWA
- 3 mg(Mn)/m³ UK OES STEL

MEASUREMENT METHOD: Particulate filter; Acid; Inductively coupled plasma; NIOSH III # 7300, Elements

CHROMIUM(III) OXIDE:

CHROMIUM, CHROMIC AND CHROMOUS COMPOUNDS (as Cr):

- 0.5 mg/m³ OSHA TWA (soluble salts)
- 1 mg/m³ OSHA TWA (insoluble salts)
- 0.5 mg/m³ ACGIH TWA
- 0.5 mg/m³ NIOSH recommended TWA 10 hour(s)

MEASUREMENT METHOD: Particulate filter; Acid; Atomic absorption spectrometry; NIOSH III # 7024, Chromium

VANADIUM PENTOXIDE:

- 0.5 mg(V₂O₅)/m³ OSHA ceiling (respirable particulate)
- 0.1 mg(V₂O₅)/m³ OSHA ceiling (fume)
- 0.05 mg(V₂O₅)/m³ OSHA TWA (respirable particulate) (vacated by 58 FR 35338, June 30, 1993)
- 0.05 mg(V₂O₅)/m³ ACGIH TWA (respirable particulate)
- 0.05 mg(V)/m³ NIOSH recommended ceiling 15 minute(s) (particulate)
- 0.05 mg/m³ DFG MAK 4 times/shift (fine dust)

0.5 mg(V)/m3 UK OES TWA (total particulate)
0.04 mg(V)/m3 UK OES TWA (fume) (respirable particulate)

MEASUREMENT METHOD: Particulate filter; Tetrahydrofuran; X-ray diffraction spectrometry; NIOSH III # 7504

VENTILATION: Provide local exhaust or process enclosure ventilation system.
Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.
Any dust, mist, and fume respirator.
Any air-purifying respirator with a high-efficiency particulate filter.
Any powered, air-purifying respirator with a dust, mist, and fume filter.
Any powered, air-purifying respirator with a high-efficiency particulate filter.

For Unknown Concentrations or Immediately Dangerous to Life or Health -
Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.
Any self-contained breathing apparatus with a full facepiece.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Crystals or powder
BOILING POINT: Not applicable
MELTING POINT: Not available
VAPOR PRESSURE: Not applicable
VAPOR DENSITY: Not applicable
SPECIFIC GRAVITY: Not available
WATER SOLUBILITY: insoluble
PH: Not applicable
VOLATILITY: Not applicable
ODOR THRESHOLD: Not available
EVAPORATION RATE: Not applicable
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition.
Avoid contact with incompatible materials.

INCOMPATIBILITIES: halo carbons, halogens, combustible materials, oxidizing materials, acids, metals, metal salts, peroxides, bases, reducing agents, amines, metal carbide

ALUMINUM OXIDE (ALUMINA):

CHLORINATED RUBBER (HOT): Incompatible.
CHLORINE TRIFLUORIDE: Violent reaction and possible ignition.
ETHYLENE OXIDE: May initiate explosive polymerization.
HALOCARBONS: Exothermic reaction above 200 C.
HALOCARBONS + METALS: Exothermic reaction at ambient temperatures.
OXYGEN DIFLUORIDE: Exothermic reaction.
SODIUM NITRATE: May form explosive mixture.
VINYL ACETATE: Possible vigorous reaction.

IRON:

ACETALDEHYDE: Polymerizes readily.
AMMONIUM NITRATE: Violent or explosive reaction.
AMMONIUM PEROXODISULFATE: Violent reaction.
BROMINE PENTAFLUORIDE: Violent reaction and possible ignition.
CHLORIC ACID: Forms explosive compound.
CHLORINE (GAS): Ignites.
CHLORINE TRIFLUORIDE: Violent reaction and possible ignition.
CHLOROFORMAMIDINIUM NITRATE: Explosive ignition.
DINITROGEN TETRAOXIDE: Ignites.
FLUORINE: Ignites.
HYDROGEN PEROXIDE: Violent decomposition.
MINERAL ACIDS: Readily attacked.
NITROGEN DIOXIDE: Incandescent reaction.
NITRYL FLUORIDE: Incandesces when heated.
ORGANIC ACIDS: Attacked or dissolved.
PEROXYFORMIC ACID: Incompatible.
PHOSPHORUS: Incandesces when heated.
POLYSTYRENE BEADS: Possible static ignition.
POTASSIUM DICHROMATE: Ignites on contact.
POTASSIUM PERCHLORATE + MANGANESE DIOXIDE: Ignites.
SODIUM ACETYLIDE: Possible violent reaction.
SODIUM PEROXIDE: Ignites under friction @ 240 C.
SULFURIC ACID: Possible explosion hazard.

MANGANESE DIOXIDE:

ALUMINUM: Violent reaction when heated.
ANILINIUM PERCHLORATE: Explodes.
BARIUM CHLORATE: May explode.
CALCIUM CHLORATE: May explode.
CALCIUM HYDRIDE: Incandesces when warmed.
CHLORATES: May explode.
CHLORINE TRIFLUORIDE: Incandescent reaction.
DIBORON TETRAFLUORIDE: Violent reaction at 15 C.
HYDROCHLORIC ACID: Releases chlorine fumes.
HYDROGEN PEROXIDE: May explode.
HYDROGEN SULFIDE: May ignite.
HYDROXYLAMINIUM CHLORIDE (20% SOLN): Vigorous reaction.
HYPOPHOSPHITES: Fire and explosion hazard.
ORGANIC MATTER: Fire and explosion hazard.

PERMONOSULFURIC ACID (92%): Explosive decomposition.
PHOSPHIDES: Fire and explosion hazard.
POTASSIUM AZIDE: Violent reaction when heated.
RUBIDIUM CARBIDE: Incandescent reaction at 350 C.
SODIUM PEROXIDE: Violent decomposition.
SULFIDES: Fire and explosion hazard.
SULFUR: Fire and explosion hazard.

CHROMIUM(III) OXIDE:

CHLORINE TRIFLUORIDE: Violent reaction with possible ignition.
COPPER CHROMITE: Possible ignition reaction.
GLYCEROL: Possible explosion reaction.
LITHIUM: Violent exothermic reaction at 180 C.
NITROALKANES: Possible explosion reaction.
OXIDIZERS: Incompatible.
OXYGEN DIFLUORIDE: Vigorous reaction.
RUBIDIUM ACETYLIDE: Exothermic reaction.

VANADIUM PENTOXIDE:

ACIDS (STRONG): Incompatible.
CALCIUM, SULFUR, WATER: Formation of an explosive compound.
CHLORATES: Incompatible.
CHLORINE: Incompatible.
CHLORINE TRIFLUORIDE: Violent reaction.
LITHIUM: Intense exothermic reaction.
PEROXYFORMIC ACID: Violent decomposition.

SILICON DIOXIDE:

CHLORINE TRIFLUORIDE: Fire hazard.
FLUORINE: Fire hazard.
HYDROCHLORIC ACID + WATER: Explosion hazard with gel form.
HYDROFLUORIC ACID: Dissolves, releasing silicon tetrafluoride.
HYDROGEN FLUORIDE: Incompatible.
HYDROGENATED VEGETABLE OILS: Incompatible.
MAGNESIUM (POWDERED): Explosion hazard on heating in the presence of moisture.
MANGANESE TRIFLUORIDE: May react violently on heating, releasing silicon tetrafluoride.
OXIDIZERS (STRONG): Fire and explosion hazard.
OXYGEN DIFLUORIDE: Explosion hazard under certain conditions and in the presence of moisture.
OZONE: Potential explosion hazard at low temperatures if organic material is present.
PHOSPHORIC ACID (CONCENTRATED): Attacks on heating.
SODIUM (BURNING): Reacts with finely divided silica.
VINYL ACETATE (VAPOR): May react vigorously with gel form.
XENON HEXAFLUORIDE: May react explosively by forming xenon trioxide.

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: miscellaneous decomposition products

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

ALUMINUM OXIDE:

CARCINOGEN STATUS: ACGIH: A4 -Not Classifiable as a Human Carcinogen

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders

TUMORIGENIC DATA:

90 mg/kg intrapleural-rat TDLo; 200 mg/kg implant-rat TDLo; 200 mg/kg
implant-rat TD

SILICON DIOXIDE:

CARCINOGEN STATUS: IARC: Human Inadequate Evidence, Animal Inadequate
Evidence, Group 3 (Amorphous silica)

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders

IRON:

TOXICITY DATA:

77 mg/kg oral-child TDLo; 30 gm/kg oral-rat LD50; 20 mg/kg
intraperitoneal-rabbit LDLo; 20 gm/kg oral-guinea pig LD50; 250 mg/m3/6
hour(s)-4 week(s) intermittent inhalation-rat TCLoCARCINOGEN STATUS: Iron itself has not been evaluated by IARC. However iron
and steel founding has been evaluated as IARC Group 1 (Human Sufficient
Evidence). Studies have shown that certain exposures in iron and steel
founding can cause lung cancer in humans. Excesses of leukemia and
urogenital and digestive system cancers have also been reported.

ACUTE TOXICITY LEVEL:

Relatively Non-toxic: ingestion

TUMORIGENIC DATA:

450 mg/kg intratracheal-rat TDLo/15 week(s) intermittent

MANGANESE DIOXIDE:

TOXICITY DATA:

>3478 mg/kg oral-rat LD50; 50 mg/kg intratracheal-rat LDLo; 422 mg/kg
subcutaneous-mouse LD50; 45 mg/kg intravenous-rabbit LDLo; 1800 ug/m3/24
hour(s)-35 day(s) continuous inhalation-rat TCLo

LOCAL EFFECTS:

Irritant: skin, eye

ACUTE TOXICITY LEVEL: Insufficient Data.

TARGET ORGANS: nervous system

REPRODUCTIVE EFFECTS DATA:

49 mg/m3 inhalation-mouse TCLo/7 hour(s) 75 day(s) pre pregnancy/1-18 day(s)
pregnant female continuous

CHROMIUM(III) OXIDE:

TOXICITY DATA:

150 mg/m3/4 hour(s)-6 week(s) intermittent inhalation-rat TCLo

CARCINOGEN STATUS: IARC: Human Inadequate Evidence, Animal Inadequate
Evidence, Group 3 (Trivalent chromium compounds); ACGIH: A4 -Not
Classifiable as a Human Carcinogen (Trivalent chromium compounds)

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: skin disorders and allergies

TUMORIGENIC DATA:

90 mg/kg intraperitoneal-rat TDLo; 45 mg/kg intrapleural-rat TDLo; 90 mg/kg
intratracheal-rat TDLo

MUTAGENIC DATA:

mutation in microorganisms - Salmonella typhimurium 10 ug/plate (+S9); DNA repair - Bacillus subtilis 10 mmol/L; other mutation test systems - hamster lung 100 mg/L; sister chromatid exchange - hamster lung 34 mg/L; mutation in mammalian somatic cells - hamster lung 50 mg/L

ADDITIONAL DATA: May cross the placenta.

VANADIUM PENTOXIDE:

IRRITATION DATA:

20 mg/24 hour(s) eyes-rabbit moderate

TOXICITY DATA:

346 mg/m³ inhalation-human TCLo; 1 mg/m³/8 hour(s) inhalation-human TCLo; 10 mg/kg oral-rat LD50; 126 mg/m³/6 hour(s) inhalation-rat LC50; 12 mg/kg intraperitoneal-rat LD50; 14 mg/kg subcutaneous-rat LD50; 6 mg/kg intratracheal-rat LD50; 5 mg/kg oral-mouse LD50; 23 mg/kg intraperitoneal-mouse LD50; 10 mg/kg subcutaneous-mouse LD50; 500 mg/m³/23 minute(s) inhalation-cat LCLo; 50 mg/kg skin-rabbit LD50; 20 mg/kg subcutaneous-guinea pig LDLo; 91 mg/kg/26 week(s) intermittent oral-rat TDLo; 1280 mg/kg/15 week(s) continuous oral-rat TDLo; 100 ug/m³/24 hour(s)-24 day(s) continuous inhalation-rat TCLo; 2 mg/m³/1 hour(s)-13 week(s) intermittent inhalation-rat TCLo; 56 mg/kg/14 day(s) intermittent intraperitoneal-rat TDLo; 7200 ug/kg/1 year(s) intermittent intratracheal-rat TDLo

LOCAL EFFECTS:

Irritant: inhalation, skin, eye

ACUTE TOXICITY LEVEL:

Highly Toxic: inhalation, dermal absorption, ingestion

MUTAGENIC DATA:

DNA repair - Bacillus subtilis 500 mmol/L; DNA damage - human leukocyte 300 nmol/L; DNA damage - human lymphocyte 30 umol/L; sex chromosome loss and non disjunction - human lymphocyte 10 nmol/L; micronucleus test - hamster lung 1 mg/L

REPRODUCTIVE EFFECTS DATA:

90 mg/kg oral-rat TDLo 6-15 day(s) pregnant female continuous; 180 mg/kg oral-rat TDLo 6-15 day(s) pregnant female continuous; 10 mg/kg intraperitoneal-rat TDLo 6-15 day(s) pregnant female continuous; 10 mg/kg intraperitoneal-rat TDLo 6-15 day(s) pregnant female continuous; 50 mg/kg intraperitoneal-rat TDLo 6-15 day(s) pregnant female continuous; 5 mg/kg intraperitoneal-rat TDLo 10 day(s) pregnant female continuous; 85 mg/kg intraperitoneal-mouse TDLo 6-15 day(s) pregnant female continuous; 85 mg/kg intraperitoneal-mouse TDLo 6-15 day(s) pregnant female continuous; 170 mg/kg intraperitoneal-mouse TDLo 60 day(s) male; 170 mg/kg intraperitoneal-mouse TDLo 60 day(s) male; 10900 mg/kg intravenous-mouse TDLo 8 day(s) pregnant female continuous

HEALTH EFFECTS:

INHALATION:

SILICON DIOXIDE: CARCINOGEN (CRYSTALLINE SILICA).

MANGANESE DIOXIDE: See information on metal fume fever and manganese compounds. Other effects of manganese compounds may include acute bronchitis, nasopharyngitis, and pneumonia. Reproductive effects have been reported in animals.

CHROMIUM(III) OXIDE: See information on trivalent chromium compounds. May cause irritation, coughing and chest discomfort. Intratracheal

administration induced an increased incidence of sarcomas, tumors, and reticulum cell sarcomas of reticulum cell sarcomas of the lung in rats.

ALUMINUM OXIDE (ALUMINA): Inhalation of high concentrations may cause coughing, shortness of breath, respiratory tract irritation due to mechanical action, unpleasant deposits in the nasal passages, and exacerbation of symptoms in persons with impaired pulmonary function. Humans exposed chronically to aluminum oxide, particle size approximately 1.2 microns, did not experience either systemic or respiratory adverse effects. Hydrated aluminum oxide, injected intratracheally, produced dense and numerous nodules of advanced fibrosis in rats, a reticulin network with occasional collagen fibers in mice and guinea pigs, and only a slight reticulin network in rabbits. A production process in which aluminum oxide (bauxite), iron, coke, and silica are fused at 2000 C poses a threat of Shaver's disease, a rapidly progressive and often fatal interstitial fibrosis of the lungs. See information on metal fume fever.

ACUTE EXPOSURE:

SILICON DIOXIDE: Dusts may cause irritation of the respiratory tract and coughing.

IRON: Dust may cause mucous membrane and respiratory irritation due to mechanical action. Metal fume fever, an influenza-like illness, may occur due to the inhalation of freshly formed iron oxide particles sized below 1.5 microns and usually between 0.02-0.05 microns. Symptoms may be delayed 4-12 hours and begin with a sudden onset of thirst, and a sweet, metallic or foul taste in the mouth. Other symptoms may include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes. Lassitude and a generalized feeling of malaise. Fever, chills, muscular pain, mild to severe headache, nausea, occasional vomiting, exaggerated mental activity, profuse sweating, excessive urination, diarrhea and prostration may also occur. Tolerance to fumes develops rapidly, but is quickly lost. All symptoms usually subside within 24-36 hours.

VANADIUM PENTOXIDE: Inhalation of dust concentrations of >0.1 mg/m³ may result in respiratory tract irritation, delayed serous or hemorrhagic rhinitis and sore throat and chest, often with a latent period of a half to one hour, nasopharyngitis, sneezing, delayed dry, paroxysmal cough, wheezing, and dyspnea on exertion, with a latent period of 6-24 hours, tracheitis, expectoration, bronchitis, bronchospasms, rales and rhonchi, pneumonitis, hemoptysis, and possible pulmonary sensitization resulting in asthma. Other symptoms may include pallor, altered taste, greenish-black discoloration of the tongue, headache, nausea, vomiting, abdominal pain, increased temperature, insomnia, anorexia, weight loss, nervousness, dizziness, anemia, tinnitus, kidney malfunction, albuminuria, hematuria, psychic disturbances, cardiac palpitations, and damage to the liver and adrenals. Other symptoms of vanadium compounds may include tremors of distal extremities, blindness, and damage to the bone marrow. More severe exposures to vanadium pentoxide may result in pulmonary edema, patchy bronchopneumonia, and lobar pneumonia, which may be fatal. If the victim survives, there may be persistent asthma-type bronchitis, bouts of dyspnea, and fatigue. Once removed from exposure, complete recovery usually occurs within 1-2 weeks.

METAL FUME FEVER: Metal fume fever, an influenza-like illness, may occur due to the inhalation of freshly formed metal oxide particles sized below 1.5 microns and usually between 0.02-0.05 microns. Symptoms may be delayed 4-12 hours and begin with a sudden onset of thirst, and a sweet, metallic or foul taste in the mouth. Other symptoms may include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes, lassitude and a generalized feeling of malaise. Fever, chills, muscular pain, mild to severe headache, nausea, occasional vomiting, exaggerated mental activity, profuse sweating, excessive urination, diarrhea and prostration may also occur. Tolerance to fumes develops rapidly, but is quickly lost. All symptoms usually subside within 24-36 hours.

SILICON DIOXIDE: Dusts may cause irritation of the respiratory tract and coughing.

MANGANESE COMPOUNDS: No data available.

TRIVALENT CHROMIUM COMPOUNDS: Animal studies indicate absorption from the lungs is slow following intratracheal administration. Allergic reactions may occur in previously exposed persons.

CHRONIC EXPOSURE:

SILICON DIOXIDE: Exposure to dusts of crystalline or amorphous silica for 6 months to 30 years may result in silicosis with symptoms of cough, chest pain, dyspnea, tachypnea, marked weakness and weight loss. This pulmonary insufficiency may be characterized by diffuse nodular fibrosis, distortion of bronchi, diminished chest expansion, decreased vital capacity and compensatory and bullous emphysema. Although pulmonary fibrosis has been reported from workers exposed to amorphous silica, the crystalline form is the established cause of fibrotic response in the lung. However, the amorphous form has been reported fibrogenic to a lesser extent. As the disease progresses, cor pulmonale, cardiorespiratory failure, and death may occur. Various forms and preparations of crystalline silica produced adenocarcinomas and squamous cell carcinomas of the lungs in rats.

IRON: Prolonged or repeated exposure may cause a mottling of the lungs, a condition called siderosis which is considered to be a benign pneumoconiosis that does not cause significant physiologic impairment. Symptoms may include chronic bronchitis, emphysema, and dyspnea on exertion.

VANADIUM PENTOXIDE: Repeated or prolonged exposure may result in chronic bronchitis with or without emphysema, high blood pressure, and other effects as in acute exposure. There may also be blood changes, liver and kidney damage, and an increased susceptibility to respiratory changes.

METAL FUME FEVER: There is no form of chronic metal fume fever, however, repeated bouts with symptoms as described above are quite common. Resistance to the condition develops after a few days of exposure, but is quickly lost in 1 or 2 days.

SILICON DIOXIDE: Exposure to dusts of amorphous silica for 6 months to 30 years may result in silicosis with symptoms of cough, chest pain, dyspnea, tachypnea, marked weakness and weight loss. This pulmonary insufficiency

may be characterised by diffuse nodular fibrosis, distortion of bronchi, diminished chest expansion, decreased vital capacity and compensatory and bullous emphysema. Although pulmonary fibrosis has been reported from workers exposed to amorphous silica, the crystalline form is the established cause of fibrotic response in the lung. However, the amorphous form has been reported fibrogenic to a lesser extent. As the disease progresses, cor pulmonale, cardiorespiratory failure, and death may occur.

MANGANESE COMPOUNDS: Repeated or prolonged exposure to manganese compounds may result in systemic poisoning known as "manganism", a Parkinsonian-like syndrome. It is characterized initially by anorexia, asthenia, headache, insomnia or somnolence, irritability, restlessness, and spasm or pain in the muscles. Manganese psychosis may follow with uncontrollable behavior, unaccountable laughing or crying, visual hallucinations, confusion and euphoria. Sexual excitement followed by impotence may occur. These symptoms may disappear with the onset of true neurological manifestations of slow, slurred and irregular speech, monotonous tone, double vision, impaired hearing, difficulty with fine motor movements, and disturbances in gait and balance with frequent propulsion or retropulsion. Mask-like face, decreased movement of the eyelids and eyes and tremors of the upper extremities and head may also occur. Other signs and symptoms may include urinary bladder disturbances, excessive salivation and sweating, hematological changes, vasomotor disorders, decreased pulmonary function, kidney and possibly liver damage. Removal from exposure shortly after onset of symptoms usually results in improvement, although there may be residual disturbances in gait and speech. Once manganism is well established it becomes irreversible and progressive, but not fatal. An increased incidence of bronchitis and pneumonitis has been reported in studies of workers exposed to manganese dust and fume, and although these effects have been confirmed by animal experiments, they may represent an aggravation of a pre-existing condition. Allergic diseases of the respiratory tract have also been reported in one study.

TRIVALENT CHROMIUM COMPOUNDS: Repeated exposure may lead to sensitization. Pneumoconiosis has been reported. Irritation of the bronchus and lung parenchyma, dystrophic changes of the liver and kidneys, and pulmonary adenomas have been reported to occur in animals. Adverse effects on macrophages were reported in rabbits exposed for 4-6 weeks.

SKIN CONTACT:

CHROMIUM(III) OXIDE: See information on trivalent chromium compounds.

ACUTE EXPOSURE:

SILICON DIOXIDE: Prolonged skin contact with dry particulate may cause drying of the skin.

IRON: Dust may cause irritation. Penetration of iron particles in the skin may cause an exogenous siderosis which may be characterized by a red-brown pigmentation of the affected area.

MANGANESE DIOXIDE: May cause irritation with redness and pain.

VANADIUM PENTOXIDE: Direct contact with air concentrations of greater than or equal to 0.03 mg v/m³ may result in irritation, a seborrhea-like eczema with intense itching, generalized urticaria, and possible sensitization

resulting in contact dermatitis.

ALUMINUM OXIDE (ALUMINA): Contact may cause an irritant dermatitis accompanied by pruritis.

TRIVALENT CHROMIUM COMPOUNDS: May cause contact dermatitis. Allergic reactions may occur in previously exposed persons.

CHRONIC EXPOSURE:

SILICON DIOXIDE: No data available.

IRON: May cause same effects as reported in acute exposure.

MANGANESE DIOXIDE: Repeated or prolonged contact may cause dermatitis.

VANADIUM PENTOXIDE: Repeated or prolonged contact may result in allergic eczema, sensitization, and dermatitis.

ALUMINUM OXIDE (ALUMINA): No data available.

TRIVALENT CHROMIUM COMPOUNDS: Repeated contact may cause dermatitis and sensitization.

EYE CONTACT:

ACUTE EXPOSURE:

SILICON DIOXIDE: Dusts may cause irritation with redness and pain.

IRON: May cause irritation due to mechanical action. Iron particles imbedded in the eye may cause ocular siderosis. Effects may include discoloration of the cornea and iris, and pupillary effects including poor reaction to light, accomodation, and atropine. If a particle enters the lens there may be cataract formation. Glaucoma occurs rarely in some cases of ocular siderosis.

MANGANESE DIOXIDE: May cause redness, pain, tearing and irritation.

CHROMIUM(III) OXIDE: May cause irritation.

VANADIUM PENTOXIDE: Direct contact with air concentrations of greater than or equal to 0.018 mg/m3 may result in irritation, profuse lacrimation, blurred vision, and a burning sensation of the conjunctiva.

ALUMINUM OXIDE (ALUMINA): Dust may cause mechanical irritation with redness and possibly swelling of the conjunctiva.

CHRONIC EXPOSURE:

SILICON DIOXIDE: No data available.

IRON: Repeated and prolonged contact may cause conjunctivitis and other effects reported in acute exposure.

MANGANESE DIOXIDE: Repeated or prolonged contact may cause conjunctivitis.

CHROMIUM(III) OXIDE: No data available.

VANADIUM PENTOXIDE: Repeated or prolonged exposure may cause conjunctivitis.

ALUMINUM OXIDE (ALUMINA): No data available.

INGESTION:

MANGANESE DIOXIDE: See information on manganese compounds. Other effects may include abdominal pain and nausea.

CHROMIUM(III) OXIDE: See information on trivalent chromium compounds. May cause gastrointestinal irritation. An increased incidence of mammary fibroadenomas was reported in rats when administered in the diet.

ACUTE EXPOSURE:

SILICON DIOXIDE: The effects of ingestion are purely mechanical as the substance is inert chemically and biologically by this route.

IRON: There are no reports available on poisoning from metallic iron. The principal manifestations of poisoning with iron compounds are vomiting, diarrhea, and circulatory collapse.

VANADIUM PENTOXIDE: Ingestion may cause a metallic taste, nausea, vomiting, abdominal pain and spasms, diarrhea, and greenish-black discoloration of the tongue. Ingestion of vanadium by rats resulted in immediate distress, hemorrhagic rhinitis, marked diarrhea, hindlimb paralysis, dyspnea, convulsions, and death. Pathological findings in animals may include damage to the liver, kidneys, lungs, gastrointestinal tract, adrenal cortex, brain, spinal cord, and bone marrow.

ALUMINUM OXIDE (ALUMINA): No data available.

MANGANESE COMPOUNDS: Extremely large doses of manganese compounds may cause gastrointestinal irritation and possibly systemic toxicity.

TRIVALENT CHROMIUM COMPOUNDS: May not be readily absorbed from the gastrointestinal tract.

CHRONIC EXPOSURE:

SILICON DIOXIDE: No data available.

IRON: Repeated or prolonged exposure may cause hemosiderosis, or hemochromatosis.

VANADIUM PENTOXIDE: Repeated or prolonged ingestion may result in the same effects as in acute exposure. Reproductive effects have been reported in animals.

ALUMINUM OXIDE (ALUMINA): Some aluminum compounds cause constipation.

MANGANESE COMPOUNDS: Manganese poisoning has been reported in persons drinking manganese-contaminated well water.

TRIVALENT CHROMIUM COMPOUNDS: Administration of 0.45-25 ppm/1 year in drinking water was non-toxic to rats.

SECTION 12 ECOLOGICAL INFORMATION

Not available

SECTION 13 DISPOSAL CONSIDERATIONS

Hazardous Waste Number(s): D007. Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 5.0 mg/L. Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

No classification assigned.

LAND TRANSPORT ADR/RID: No classification assigned.

AIR TRANSPORT IATA/ICAO: No classification assigned.

MARITIME TRANSPORT IMDG: No classification assigned.

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS:

TSCA INVENTORY STATUS: Y

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CERCLA SECTION 103 (40CFR302.4): Y

VANADIUM PENTOXIDE: 1000 LBS RQ

SARA SECTION 302 (40CFR355.30): Y

VANADIUM PENTOXIDE: 100/10000 LBS TPQ

SARA SECTION 304 (40CFR355.40): Y

VANADIUM PENTOXIDE: 1000 LBS RQ

SARA SECTION 313 (40CFR372.65): Y

ALUMINUM OXIDE (ALUMINA)

(fibrous forms)

MANGANESE AND COMPOUNDS (as Mn)

CHROMIUM, CHROMIC AND CHROMOUS COMPOUNDS (as Cr)

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

ACUTE: Y

CHRONIC: N

FIRE: N

REACTIVE: N

SUDDEN RELEASE: N

OSHA PROCESS SAFETY (29CFR1910.119): N

STATE REGULATIONS:

California Proposition 65: N

EUROPEAN REGULATIONS:

EC NUMBER: Not assigned.

SECTION 16 OTHER INFORMATION

COPYRIGHT 1984-1999 MDL INFORMATION SYSTEMS, INC. ALL RIGHTS RESERVED.

J.5 Fedwire Procedures

FEDWIRE PROCEDURES (JUN 98)

The Sender should use a bank that offers wire transfer capability. The Federal Reserve Bank of New York will then process the money for deposit to the Defense National Stockpile Account with the Department of the Treasury.

PROCEDURES FOR DEPOSIT SLIP(S) FOR FEDWIRE:

To ensure the funds are credited to the Defense National Stockpile Center the following information is required on any wire transfer of funds.

1. Treasury Dept. Code – Routing No. to the Treasury
MUST BE ON SLIP “021030004”.
2. Amount of funds to be transferred.
3. Treasury Department Name – **This item is critical** –
MUST APPEAR EXACTLY AS SHOWN BELOW
TREAS NYC/(CTR/BNF=/AC-00006355)
4. Third Party Information – Purchaser’s Name,
Commodity, and Contract Number.