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SCHEDULE

SECTION A - INVITATION

A.1 Introduction (JUL 97)

a. The Defense Logistics Agency (DLA), Defense National Stockpile Center (DNSC), is soliciting bids for the sale of approximately 4,000 short tons of aluminum oxide-abrasive grain in Fiscal Year 1997. **The initial bid opening under this invitation will be held on Wednesday, August 27, 1997, at 10:00 a.m., local time, Fort Belvoir, VA.** If all material is not sold, subsequent bid openings will be held at 10:00 a.m., local time, Fort Belvoir, VA on the fourth Wednesday of each month until all material is sold. Bidders are advised to telephone the Directorate of Stockpile Contracts at (703) 767-6500 to ascertain the availability of material. Bids must be received at the address in Section **B.2.a.** by 10:00 a.m., local time. In the event that the fourth Wednesday of any month is a holiday, or DNSC is otherwise closed that day, the bid opening for that day will be held at 10:00 a.m. on the next DNSC business day. Bids should be based on the terms and conditions set forth in this Invitation.

b. Material available under this invitation will be evaluated based on the following two categories of grain size:

Category I: Grain size 20 - 150 (coarse, medium, and fine).

Category II: Grain size 8 - 16 (very coarse).

c. Delivery is F.O.B. carrier's conveyance. The Government will assist with outloading. (See Sections **F.1.e.** and **F.1.f.**)

d. This Solicitation supersedes Invitation For Bids for DLA-Aluminum Oxide Abrasive Grain-001, which is hereby canceled in its entirety.

A.2 Description

a. Category I material consists of aluminum oxide, abrasive grain, with grain sizes ranging from 20 to 150. This material is described as coarse, medium, and fine. A description of the material offered for sale is listed in Section **I.2.** The Aluminum Oxide - Abrasive Grain is stored in drums and is located at the storage locations set forth in **J.1** Storage Locations.

b. Category II material consists of aluminum oxide, abrasive grain, with grain sizes ranging from 8 to 16. This material is described as very coarse.

c. Government records indicate that the aluminum oxide - abrasive grain, conforms to the data listed in Section **I.2;** however, no warranty or guarantee is made that the material so conforms or that it will be suitable for any particular purpose.

SECTION B - PRICE

B.1 Submittals

Bidders shall submit **all** of the following documents which are contained in **Section I** along with their bid:

a. Section I.1 Sale of Government Property Bid and Award with the section entitled "Execution by Contractor" completed by the Bidder;

b. Section I.2 Item Bid Page - Aluminum Oxide - Abrasive Grain with the (1) quantity bid column; (2) unit price (STs) column; (3) total bid price column; and (4) company name, name, title, signature and date blocks completed. In the case of a discrepancy between a unit price and a total bid price, the unit price will prevail. **The unit price shall be expressed on a per short ton basis.** The minimum bid quantity for each item shall be for one (1) short ton (ST). A bid for less than the minimum quantity shall be considered non-responsive.

c. Representation, Certifications and Identifications at Sections I.3 through I.9.

B.2 General Information

a. Bids and modifications shall be enclosed in a sealed envelope and addressed as follows:

If mailed -

Defense National Stockpile Center
Directorate of Stockpile Contracts
ATTN: Bid Custodian (DNSC-LX)
8725 John J. Kingman Road, Suite 4616
Ft. Belvoir, Virginia 22060-6223

If hand-delivered -

Defense National Stockpile Center
Directorate of Stockpile Contracts
ATTN: Bid Custodian (DNSC-LX)
8725 John J. Kingman Road, Suite 4528
Ft. Belvoir, Virginia 22060-6223

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

ALUMINUM OXIDE - ABRASIVE GRAIN
INVITATION FOR BIDS
DLA-ALUMINUM OX AG-002

b. Facsimile bids shall be submitted in accordance with Section B.5.

c. The Bidder agrees, if its bid is accepted by the Government within ten (10) working days from the date specified for receipt of bids, to purchase any or all material on which they submitted bids, at the price bid, and to take delivery of the material within the removal period specified in Section E.1 Removal of Material.

d. Unless a designation of agent is on file at DNSC, a Bidder submitting a bid as agent for another party shall submit written proof, either prior to or with the bid, that it is authorized to act as an agent and shall tender the bid in the name of the principal.

B.3 Minimum Bid Quantity (JUL 97)

The minimum bid quantity for each item number listed on **I.2** Item Bid Page shall be one (1) short ton (ST). A bid for less than the minimum quantity shall be considered nonresponsive.

B.4 Late Submissions, Modifications, and Withdrawals of Bids (MAY 97)

a. Any bid received at the office designated in the Invitation after the exact time specified for receipt 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 bids (e.g., a bid submitted in response to an invitation requiring receipt of bids by the 10th of the month must have been mailed by the 5th); or

(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; or

(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 (2) working days prior to the date specified for receipt of bids. The terms "working days" excludes weekends and U.S. Federal holidays; or

(4) Was transmitted through an electronic commerce method authorized by the Invitation 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 bids.

b. Any modification or withdrawal of a bid is subject to the same conditions as in paragraphs a. of this provision.

c. The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal 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 bid, modification or withdrawal 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, bidders should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

d. The only acceptable evidence to establish the time of receipt at the Government installation is the time/date stamp of that installation on the bid wrapper or other documentary evidence of receipt maintained by the installation.

e. The only acceptable evidence to establish the date of mailing of a late bid, 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 (c) of this provision, excluding postmarks of the Canadian Postal Service. Therefore, Bidders should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

f. Notwithstanding paragraph **a.** of this provision, a late modification of an otherwise successful bid that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

g. Bids may be withdrawn by written notice or telegram (including mailgram) received at any time before exact time set for receipt of bids. If the Invitation authorizes facsimile bids, bids may be withdrawn via facsimile received at any time before the exact time set for receipt of bids, subject to the conditions specified in the provision entitled "**Facsimile Submissions**". A bid may be withdrawn in person by a bidder or an authorized representative if, before the exact time set for receipt of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

h. If an emergency or unanticipated event interrupts normal Government processes so as to cause postponement of the scheduled bid opening, and urgent Government requirements preclude amendment of the Invitation or other notice of an extension of the opening date, the time specified for receipt of bids will be deemed to be extended to the same time of day in the Invitation on the first work day on which normal Government processes resume.

B.5 Facsimile Submissions (APR 97)

Facsimile bids, modifications and withdrawals will be accepted any time prior to the exact time set for receipt of bids. Bidders must use the facsimile number: (703) 767-5541. The telephone for the Bid Custodian is (703) 767-6506 to verify receipt of bids.

a. Definition. "Facsimile submission", as used in the Invitation means a bid, modification of a bid or withdrawal of a bid that is transmitted to and received by the Government via electronic equipment that communicates and reproduces both printed and handwritten material.

b. Facsimile submissions that fail to furnish required representations or information, that contain garbled information, or are otherwise incomplete, may be excluded from consideration.

c. Facsimile submissions must contain the required signatures.

d. 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 Bidder agrees to promptly submit the complete original signed submission.

e. 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 transmission.
- (2) Availability or condition of the receiving facsimile equipment.
- (3) Incompatibility between the sending and receiving equipment.
- (4) Delay in transmission or receipt of transmission.
- (5) Failure to properly identify the submission.
- (6) Illegibility of data.
- (7) Security of data.

B.6 Consideration of Bids (JUN 95)

a. The Government reserves the right to--

- (1) Reject any or all bids;
- (2) Waive any informalities and minor irregularities in an bid; and
- (3) Unless otherwise specified by the Bidder--
 - (i) Award a quantity less than the quantity bid at the unit price bid;
 - (ii) Accept any one item or group of items in a bid, as may be in the best interest of the Government.
- (4) Award quantities in excess of the quantity offered up to the total quantity remaining on the Annual Materials Plan.

b. Bidders may submit multiple bids for multiple quantities at various unit prices and may specify a maximum quantity.

B.7 Evaluation of Bids (JUN 97)

- a. Bids will be evaluated on the basis of price alone. However, bids for Category I material (grain sizes 20-150) will be evaluated separately from bids for Category II material (grain sizes 8-16).
- b. For purposes of evaluating bids, it is assumed that \$1,000 is the administrative cost to the Government of issuing and administering each contract awarded under this Invitation. Individual awards shall be for the item(s) or combinations of line items that result in the highest aggregate return to the Government after consideration of the assumed administrative costs.
- c. "All or none" bids will not be accepted.

B.8 Responsiveness of Bids (JUN 97)

- a. To be considered eligible for award, bids must be responsive. A responsive bid is one that **fully complies** with the terms of the Invitation and one in which the intent of the Bidder is clear on its face.
- b. A bid must clearly state the item number and location (where applicable), quantity, and unit price for each line item bid.
- c. Any bid that requires the Government to decide quantity, quality, or price will render the bid nonresponsive and ineligible for award. For example, failure to fill in the quantity bid, and unit price for **each** line item on **I.2** Item Bid Page for which a bid is submitted will render the bid(s) nonresponsive and ineligible for award.
- d. Any bid submitted for less than the minimum quantity stated in the Invitation will be rendered nonresponsive.
- e. Any bid that does not include **I.1 Sale of Government Property Bid and Award** fully executed (filled out and signed) will be rendered nonresponsive unless (1) the bidder uses its own form or letter and accepts all the terms and conditions of the Invitation and (2) award on the bid would result in a binding contract with terms and conditions that do not vary from the terms and conditions of the Invitation.
- f. Bidders may submit multiple bids for different quantities at various unit prices.
- g. Bidders may specify a maximum total quantity. However, any bid that requires the Government to exercise judgment with respect to item number, quantity, or price for each line item will be considered nonresponsive and ineligible for award.
- h. Bids that contain terms or conditions not included in the Invitation will make the bid nonresponsive and ineligible for award.

B.9 Responsibility Determination (JUN 95)

No award shall be made unless the Contracting Officer makes an affirmative determination of responsibility. To be determined responsible, a bidder shall, at a minimum, have adequate financial resources, a satisfactory performance record, and a satisfactory record of integrity and ethics. For example, a bidder 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.10 Contract Award (JAN 95)

A written award or acceptance of a bid furnished to a successful Bidder within the time specified for acceptance shall result in a binding contract incorporating all the terms and conditions of this Invitation.

SECTION C - INSPECTION

C.1 Inspection

a. Bidders, or their designees, may at their expense, inspect the material at the storage locations and take a grab sample, not to exceed two (2) pounds, from readily accessible drums at each storage location. The drums will be selected by the Government and sampling will be limited to three drums per item number. The Government does not warrant any grab samples of an item to be representative of the entire quantity of that item.

b. Requests for an appointment to inspect or sample the material located at Voorheesville Depot and Somerville Depot must be made in writing to the Defense National Stockpile Center, ATTN: Vince Cangro (DNSC-MOF), 8725 John J. Kingman Road, Suite 4616, Ft. Belvoir, VA 22060-6223 not later than five (5) working days prior to the date of requested inspection.

c. Requests for an appointment to inspect or sample the material located at Warren Depot and New Haven Depot must be made in writing to the Defense National Stockpile Center, ATTN: Dennis Lynch (DNSC-MOF), 8725 John J. Kingman Road, Suite 4616, Ft. Belvoir, VA 22060-6223 not later than five (5) working days prior to the date of requested inspection.

d. Any requests should include the name and title of each individual wishing to inspect/sample the material. The Government reserves the right to limit the number of individuals seeking access to the depot.

e. Prospective bidders, their agents, and employees shall comply with the applicable rules and regulations in existence at the storage depots or military installations.

SECTION D - PAYMENT

D.1 Payment (JUN 97)

a. Payment shall be made in U.S. dollars.

b. Payment shall be made by company or bank check, U.S. Postal Service money order, or wire transfer. 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. Wire transfer payments shall be made in accordance with instructions in Section J.4.**

c. Payment shall be made to the **Defense Finance and Accounting Service - Columbus (DFAS-Columbus)**. If check is not made payable to DFAS-Columbus, the check will be returned and the \$100.00 service charge stated in **D.1.b** will apply. Payment shall be accompanied by identifying information including the contract number, invoice number, and a description of the material purchased. 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 Delivery)
Ft. Belvoir, Virginia 22060-6223

d. If payment is by wire transfer and the wrong account number is used, shipment of material may be delayed up to one week or wire transfer may be returned to sender.

e. Invoices issued for adjustments for variations in quantity or weight, storage charges, or interest shall be paid promptly.

f. 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 Section G.10.)

D.2 Payment Due Date (APR 96)

a. Payment shall be made before shipment of material and before the removal date specified in the executed **Section I.1 Sale of Government Property Bid and Award**. 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 (APR 96)

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 removal period after contract award ; or
- (2) The date of the first written demand for payment under this contract.

SECTION E - REMOVAL

E.1 Removal of Material (APR 97)

- a.** The removal period for the Aluminum Oxide - Abrasive Grain, shall be ninety (90) days from the date of award of the contract by the Government.
- b.** If the Contractor fails to remove the material on or before the last day of the contract removal period, the full amount remaining on the contract shall be due. No material will be released until full payment has been made.
- c.** The removal period includes Saturdays, Sundays, and holidays. If the last day of the removal 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 (JAN 95)

- a.** Storage charges shall be assessed on all material remaining after the last day of the removal 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.4** of the Invitation.
- b.** The storage charge is the greater of the following: (1) \$0.005 per pound (if less than a fraction of a pound remains, the charge will be for a full pound) per 30 day period regardless of whether the material remains in storage for a period of 30 days or less than 30 days; or (2) commercial storage charges, if applicable.
- c.** Storage charges shall 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.7. Default**)

SECTION F - SHIPPING

F.1 Request for Shipment (APR 97)

a. No material will be released until all outstanding delinquent charges and payments have been satisfied.

b. Delivery is F.O.B. carrier's conveyance. At least **15 working days** prior to the date shipment is required to commence, the Contractor shall furnish commercial bills of lading to the designated depot. Simultaneously the Contractor shall complete and fax the form in Section **J.2 Shipping Instructions** to the Contracting Officer. The Government will only accept shipping instructions from those individuals designated in Section **I.8** as being authorized to release material on behalf of the Contractor.

c. Shipping instructions shall include the following:

- (1) Quantity of material to be released.
- (2) Designation of type and kind of conveyance.
- (3) Name of the carrier and name of an individual who will serve as a contact for 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.

d. 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 involved may be obtained from the address specified in Section **J.1**.

e. If outloading is to be accomplished by truck, the Government will provide lumber and nails from the Government's available stock, if requested by the Contractor's designee/driver. The Contractor's designee shall perform any necessary procedure(s) to ensure the cargo is safely secured prior to leaving the depot. The Government will **not** block, chock, brace, lash, band, or in any manner secure the cargo on the Contractor's conveyance(s). The Government will load the conveyance according to the designee's instructions. The designee shall witness the loading. Any expenses over and above those normally incurred by the Government to meet the public carrier's requirements for loading like materials will be at the expense of the Contractor.

f. If outloading is to be accomplished by rail, the Government will provide materials and will block, chock, brace, and/or band as necessary to secure the cargo. The Government will not be responsible for demurrage charges.

g. The Contractor, its agent and employees shall comply with all applicable rules at the storage depot; Federal, State and Local load limitations; and safety, health, and environmental requirements.

h. Request for release shall be for a minimum of 40,000 pounds unless a smaller amount was awarded. Shipping instructions and information requested in paragraph **c.** above are to be furnished to the following address:

Defense National Stockpile Center
ATTN: DNSC-P (Aluminum Oxide - Abrasive Grain)
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand Delivery)
Ft. Belvoir, VA 22060-6223

- i.** The Government shall determine the order in which material is scheduled, coordinated, and outloaded.
- j.** 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.1** 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 term of any resultant contract, or any extension thereof, 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 shall be 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. No outweighing of material will be performed by the Government. The Government weights of record shall govern. The Contractor may elect to have a representative present to witness the outloading.

b. Weight certificates shall be provided at the expense of the Government. Outbound Storage Reports will be issued by the Government and will be final for payment purposes.

c. In the event that any broken containers are detected at the time of shipment, they will be overpackaged by the government at the Government's expense prior to outloading. If no loss is discernible, the weight of record of the Government shall govern for an item and shall be final for payment.

F.4 Weight Discrepancy (JAN 95)

a. If the Contractor's weights for the material delivered vary from the Government's certified weights by more than one-half of one percent, the Contractor may give notice of such difference to the Contracting Officer within two working days (exclusive of Saturdays, Sundays, and Government holidays) after receipt of the material at destination, requesting that the material be reweighed. In that case, the Contractor shall segregate the shipment in question and hold it intact pending reweighing. The entire shipment shall be reweighed by the Contractor at its expense, in the presence of and in the manner approved by a Government representative, using scales approved by the Government representative. If the weight varies from the Government's certified weight by greater than one-fourth of one percent, plus or minus, that weight shall govern for payment purposes. If the weight determined by reweighing does not vary from the Government's certified weight by greater than one-fourth of one percent, plus or minus, the Government's certified weight shall be final for payment purposes.

b. No adjustment shall be considered or made in accordance with the above paragraph unless notice is given by the Contractor to the Contracting Officer within the time specified above and all other requirements of the paragraph are complied with.

F.5 Assumption of Risk and Disclaimer of Liability (JUN 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 the 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 percent from the quantity or weight listed in the Invitation 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 Invitation. 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) Contractors 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.3.) This data provides specific toxicity and health related data for the protection of human health and the environment. Bidders 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) The Contractor 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 Invitation 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 Government cautions that the subject item(s) have or may have one or more components, parts, constituents or ingredients that may be corrosive reactive, ignitable or exhibit other hazardous or toxic properties. therefore, disposal must be in accordance with standards applicable to generators to 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.

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 Effective Period (JAN 95)

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

G.2 Amendments and Modifications (JAN 95)

- a. Changes in terms and conditions of this Invitation 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 (APR 96)

Title to the material shall pass to the Contractor after payment is received.

G.4 Risk of Loss (JAN 95)

- a. Prior to passage of title to the Contractor, the Government will be responsible for the care and protection of the material, and any loss, damage, or destruction occurring during such period will be adjusted by the Contracting Officer.
- b. After passage of title, and 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.
- c. After passage of title and after the date specified for removal of the material, 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 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 delivery)
Ft. Belvoir, VA 22060-6223

2. Protest 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, Directorate of Stockpile Contracts
Defense National Stockpile Center
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand delivery)
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.6 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 subject to a written decision by 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. 7 Default (JUN 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 (1)(i) through (1)(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 Contractor 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 as actual damages. 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 as follows: Using the pricing mechanism set forth in Section **I.1 Sale of Government Property Bid and Award (JAN 95)**, the Government will set the price as though the material had been priced on the last day of the contract removal 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.8 Termination for Convenience of the Government (JUN 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 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.

c. 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.9 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 unloading 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.10 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 owed by the Contractor (e.g. delinquent payments, interest or storage charges), arising out of this contract or any other DLA contract.

G.11 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.12 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 Invitation, 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 Invitation, is a concern, including its affiliates, which is independently owned and operated, is not dominant in the field of operation in which it is bidding on Government contracts, and qualifies as a small business under the criteria and size standards in 13 CFR Part 121.
- c.** The terms "Bidder", "Purchaser", or "Contractor" may be used interchangeably.

SECTION I - SUBMITTALS

Please complete and submit this section along with your bid:

- I.1 Sale of Government Property Bid and Award (JAN 95)**
- I.2 Item Bid Page - DLA-Aluminum Oxide-Abrasive Grain-002 (JUL 97)**
- I.3 Certificate of Independent Price Determination (MAY 95)**
- I.4 Certification Regarding Debarment, Suspension, Proposed Debarment, Environmental Compliance and Other Responsibility Matters (JUN 95)**
- 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 Persons Authorized to Release Material (JUL 95)**
- I.9 Bidder's Billing Address (JUL 96)**

I.1 Sale of Government Property Bid and Award (JAN 95)

**SALE OF GOVERNMENT PROPERTY
BID AND AWARD**

BID (This section to be completed by the Bidder)	DATE OF BID (Day, Month, and Year) _____
<p>In compliance with this Invitation and subject to the Terms and Conditions cited within, the undersigned offers and agrees if this Bid is accepted within 10 working days after date of Bid opening, to purchase and pay for any and all of the items or lot of property listed in Section I.2, and to remove the property within the time specified in the Invitation after contract award by the Government. The total amount bid is \$_____. In the event of a conflict between the terms on the Invitation for Bids and this page, the terms on this page shall govern</p>	
EXECUTION BY BIDDER	EXECUTION BY GOVERNMENT
<i>DATE (Day, Month, Year)</i>	<i>DATE OF ACCEPTANCE (Day, Month, Year)</i>
<i>NAME OF COMPANY</i>	<i>CONTRACT NUMBER</i> SPO833-_____
<i>ADDRESS (Street, City, State & Zip Code) (Type or Print)</i> _____ _____	<i>TOTAL AMOUNT</i> \$ _____
Telephone Number: _____ Facsimile Number: _____	<i>UNITED STATES OF AMERICA</i> <i>BY:</i> _____
<i>SIGNATURE AND TITLE OF PERSON AUTHORIZED TO SIGN THIS BID (Type or print name and title under signature,</i> _____ _____	<i>NAME AND TITLE OF CONTRACTING OFFICER</i> _____ Contracting Officer DNSC

ALUMINUM OXIDE, ABRASIVE GRAIN AWARDED (to be completed by the Government)

REMOVAL PERIOD EXPIRES ON:

**Category I
Aluminum Oxide - Abrasive Grain**

ITEM NUMBER	STORAGE LOCATION	COUNTRY OF ORIGIN	GRAIN SIZE	RANGE OF BULK DENSITY	NUMBER OF DRUMS	NUMBER OF POUNDS	SHORT TONS	BID QUANTITY (SHORT TONS)	UNIT PRICE (per ST)	TOTAL BID PRICE
CATEGORY I										
6	Voorheesville, NY	Domestic	20	1.93 - 2.02	2,091	2,197,996	1099.00		\$	\$
7	Voorheesville, NY	Domestic	24	1.90 - 1.99	1,768	1,855,206	927.60		\$	\$
8	Voorheesville, NY	Domestic	30	1.86 - 1.95	2,080	2,185,860	1092.93		\$	\$
10	Voorheesville, NY	Domestic	46	1.82 - 1.91	1,538	1,591,531	795.77		\$	\$
11	Voorheesville, NY	Domestic	54	1.81 - 1.90	1,929	1,996,652	998.33		\$	\$
16	Voorheesville, NY	Domestic	100	1.69 - 1.78	299	294,061	147.03		\$	\$
46	Somerville, NJ	Mixed Origin	20	1.93 - 2.02	2,627	2,616,011	1308.01		\$	\$
47	Somerville, NJ	Mixed Origin	24	1.90 - 1.99	2,858	2,858,300	1429.15		\$	\$
48	Somerville, NJ	Mixed Origin	30	1.86 - 1.95	2,745	2,745,261	1372.63		\$	\$
49	Somerville, NJ	Mixed Origin	36	1.83 - 1.92	2,515	2,514,700	1257.35		\$	\$
50	Somerville, NJ	Mixed Origin	46	1.82 - 1.91	2,591	2,566,480	1283.24		\$	\$
51	Somerville, NJ	Mixed Origin	54	1.81 - 1.90	1,849	1,848,563	924.28		\$	\$
56	Somerville, NJ	Mixed Origin	100	1.69 - 1.78	299	298,540	149.27		\$	\$
66	New Haven, IN	Domestic	20	1.93 - 2.02	812	814,440	407.22		\$	\$
67	New Haven, IN	Domestic	24	1.90 - 1.99	767	768,470	384.24		\$	\$
68	New Haven, IN	Domestic	30	1.86 - 1.95	648	646,766	323.38		\$	\$
69	New Haven, IN	Domestic	36	1.83 - 1.92	763	763,950	381.98		\$	\$
70	New Haven, IN	Domestic	46	1.82 - 1.91	583	580,412	290.21		\$	\$
71	New Haven, IN	Domestic	54	1.81 - 1.90	807	800,940	400.47		\$	\$
76	New Haven, IN	Domestic	100	1.69 - 1.78	203	194,200	97.10		\$	\$
90	Warren, OH	Domestic	20	1.93 - 2.02	747	774,799	387.40		\$	\$
94	Warren, OH	Domestic	46	1.82 - 1.91	693	713,900	356.95		\$	\$
95	Warren, OH	Domestic	54	1.81 - 1.90	340	348,442	174.22		\$	\$

COMPANY NAME: _____

NAME: _____

TITLE: _____

SIGNATURE: _____

DATE: _____

**Category II
Aluminum Oxide - Abrasive Grain**

ITEM NUMBER	STORAGE LOCATION	COUNTRY OF ORIGIN	GRAIN SIZE	RANGE OF BULK DENSITY	NUMBER OF DRUMS	NUMBER OF POUNDS	SHORT TONS	BID QUANTITY (SHORT TONS)	UNIT PRICE (per ST)	TOTAL BID PRICE
CATEGORY II										
1	Voorheesville, NY	Domestic	8	2.00 - 2.11	557	591,587	295.79		\$	\$
2	Voorheesville, NY	Domestic	10	1.99 - 2.10	551	585,475	292.74		\$	\$
3	Voorheesville, NY	Domestic	12	1.98 - 2.09	1,115	1,182,029	591.01		\$	\$
4	Voorheesville, NY	Domestic	14	1.98 - 2.08	1,545	1,635,688	817.84		\$	\$
5	Voorheesville, NY	Domestic	16	1.95 - 2.05	2,074	2,192,664	1096.33		\$	\$
41	Somerville, NJ	Mixed Origin	8	2.00 - 2.11	633	633,591	316.80		\$	\$
42	Somerville, NJ	Mixed Origin	10	1.99 - 2.10	704	705,891	352.95		\$	\$
43	Somerville, NJ	Mixed Origin	12	1.98 - 2.09	678	1,355,325	677.66		\$	\$
44	Somerville, NJ	Mixed Origin	14	1.98 - 2.08	1,100	1,099,638	549.82		\$	\$
45	Somerville, NJ	Mixed Origin	16	1.95 - 2.05	2,370	2,422,138	1211.07		\$	\$
61	New Haven, IN	Domestic	8	2.00 - 2.11	203	204,520	102.26		\$	\$
62	New Haven, IN	Domestic	10	1.99 - 2.10	204	204,120	102.06		\$	\$
63	New Haven, IN	Domestic	12	1.98 - 2.09	406	408,075	204.04		\$	\$
64	New Haven, IN	Domestic	14	1.98 - 2.08	583	588,060	294.03		\$	\$
65	New Haven, IN	Domestic	16	1.95 - 2.05	625	628,960	314.48		\$	\$
85	Warren, OH	Domestic	8	2.00 - 2.11	149	155,011	77.51		\$	\$
86	Warren, OH	Domestic	10	1.99 - 2.10	102	108,669	54.33		\$	\$
87	Warren, OH	Domestic	12	1.98 - 2.09	369	387,840	193.92		\$	\$
88	Warren, OH	Domestic	14	1.98 - 2.08	556	579,262	289.63		\$	\$
89	Warren, OH	Domestic	16	1.95 - 2.05	638	661,710	330.86		\$	\$

COMPANY NAME: _____

NAME: _____

TITLE: _____

SIGNATURE: _____

DATE: _____

I.3 Certificate of Independent Price Determination (MAY 95)**a.** The Bidder certifies that:

(1) The prices in this bid have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other Bidder or competitor relating to (i) those prices, (ii) the intention to submit a bid, or (iii) the methods or factors used to calculate the prices bid;

(2) The prices in this bid have not been and will not be knowingly disclosed by the Bidder, directly or indirectly, to any other Bidder or competitor before bid opening unless otherwise required by law; and

(3) No attempt has been made or will be made by the Bidder to induce any other concern to submit or not to submit a bid for the purpose of restricting competition.

b. Each signature on the bid is considered to be a certification by the signatory that the signatory:

(1) Is the person in the Bidder's organization responsible for determining the prices being bid, 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 Bidder's organization responsible for determining the prices bid, and the title of his or her position in the Bidder'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 Bidder deletes or modifies subparagraph **a.(2)** above, the Bidder must furnish with its bid 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 (JUN 95)

a. (1) The Bidder certifies, to the best of its knowledge and belief, that :

(i) The Bidder and/or any of its Principals -

(A) Are (___) are not (___) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have (___) have not (___), within a three-year period preceding this bid, 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 bids; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and

(C) 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;

(D) 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;

(E) Have (___) have not (___) within the three-year period preceding this bid, been convicted of or had a civil judgment rendered against them for violation of a Federal, state or local environmental statute or regulation.

(ii) The Bidder has (___) has not (___), within a three-year period preceding this bid, 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 Bidder answers affirmatively to a.(1)(i)(D) or (E), above, the Bidder shall include in its bid 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 Bidder shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Bidder 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 Invitation. However, the certification will be considered in connection with a determination of the Bidder's responsibility. Failure of the Bidder to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Bidder 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 a Bidder 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 Bidder knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this Invitation for default.

I.5 Type of Business Organization (APR 96)

The bidder 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 bidder 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 bidder 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 bidder is owned or controlled by another, state the relationship (e.g., wholly owned subsidiary, etc.):_____

(e) The bidder 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 Bidder represents and certifies as part of its bid 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 Bidder 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 Bidder will immediately notify the Contracting Officer, before award, of the receipt of any communication from EPA indicating that any facility at which the Bidder plans to use material purchased under this Invitation is under consideration to be listed on the EPA List of Violating Facilities.

I.8 Persons Authorized to Release Material (JUL 95)

The Bidder shall provide the name(s), title(s), signature(s), and telephone number(s) of representative(s) authorized to sign Section **J.2 Shipping Instructions** :

Typed Name

Title

Signature

Telephone

Typed Name

Title

Signature

Telephone

I.9 Bidder's Billing Address (JUL 96)

The Bidder shall provide its billing address and billing facsimile number below, if different from the address in **Section I.1. Sale of Government Property Bid and Award**.

Facsimile Number: _____

SECTION J - LIST OF ATTACHMENTS

J.1 Storage Locations and Responsible Offices

J.2 Shipping Instructions

J.3 Material Safety Data Sheet

J.4 Fedwire Procedures

J.1 Storage Locations

**DEFENSE NATIONAL STOCKPILE CENTER
DEPOT LOCATIONS**

<u>DEPOT</u>	<u>OUTLOADING HOURS</u>	<u>DEPOT ADDRESS</u>
Voorheesville, NY (Unstaffed Depot)	Mon- Thur: 0800-1500 Fri: 0900-1500	Route 5, Building #2 Scotia, NY 12302-7463 Marva Gettis , Depot Manager Phone: (518) 370-3347 Fax: (518) 370-0323
Somerville, NJ	Mon- Thur: 0700-1500 Fri: 0800-1500	152 U.S. Highway 206 South Somerville, NJ 08876-4135 James Farley , Depot Manager Phone: (908) 725-6400 Fax: (908) 707-4350
New Haven, IN	Mon- Thur: 0715-1515 Fri: 0815-1515	15411 Dawkins Road New Haven, IN 46774-9644 Fred Brooks , Depot Manager Phone: (219) 749-5953/9544 Fax: (219) 749-8467
Warren, OH	Mon- Thur: 0715-1515 Fri: 0815-1515	Pine Street Extension Warren, OH 44482-9999 John Pittano , Depot Manager Phone: (330) 652-1456 Fax: (330) 652-5167

Available transportation at the listed depots: Truck, Rail
Voorheesville, NY has Truck Access Only

Point of Contact for DNSC East Storage Locations
Locations

(Voorheesville, NY; Somerville, NJ):

Mr. Vincent Cangro

Defense National Stockpile Center (DNSC-MOF)
8725 John J. Kingman Road, Suite 4616
Fort Belvoir, VA 22060-6223

Telephone: (703) 767-6518
Facsimile No.: (703) 767-7613

Point of Contact for DNSC West Storage

(New Haven, IN; Warren, OH):

Mr. Dennis M. Lynch

Defense National Stockpile Center (DNSC-MOF)
8725 John J. Kingman Road, Suite 4616
Fort Belvoir, VA 22060-6223

Telephone: (703) 767-7609
Facsimile No.: (703) 767-7613

J.2 Shipping Instructions

SHIPPING INSTRUCTIONS

- 1. a. Contractor: _____
b. Point of Contact: _____ c. Telephone No.: _____
- 2. a. Contract No. SPO833- _____ b. Commodity: _____
- 3. a. Item/Pile: _____ b. Depot: _____
- 4. a. Quantity: _____ b. Unit Price: _____
c. Total Dollar Value: _____
- 5. Shipping Method: _____
- 6. a. Carrier Name: _____
b. Point of Contact: _____ c. Telephone No.: _____
- 7. Date Shipment Desired: _____
- 8. Ship to: _____

- 9. Minimum Load: _____
- 10. a. Outloader: _____ b. Telephone No.: _____
- 11. a. Sampler: _____ b. Telephone No.: _____
- 12. Copy of Payment Attached: Yes _____ No _____
- 13. Remarks: _____
- 14. Contractor's Signature: _____
Date Telephone No.
- 15. Release 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: ALUMINUM OXIDE, ABRASIVE GRADE

TRADE NAMES/SYNONYMS:
DLANA381

CREATION DATE: Jul 24 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: >94.0

COMPONENT: TITANIUM DIOXIDE
CAS NUMBER: 13463-67-7
EC NUMBER (EINECS): 236-675-5
PERCENTAGE: 2.0-3.0

COMPONENT: SILICON DIOXIDE
CAS NUMBER: 7631-86-9
EC NUMBER (EINECS): 231-545-4
PERCENTAGE: <2.0

COMPONENT: FERRIC OXIDE RED
CAS NUMBER: 1309-37-1
EC NUMBER (EINECS): 215-168-2
PERCENTAGE: <0.75

COMPONENT: CALCIUM OXIDE
CAS NUMBER: 1305-78-8
EC NUMBER (EINECS): 215-138-9
PERCENTAGE: <0.35

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=0 REACTIVITY=0

EC CLASSIFICATION (CALCULATED): Not determined.

EMERGENCY OVERVIEW:

PHYSICAL DESCRIPTION: Gray-brown to reddish-brown solid.

MAJOR HEALTH HAZARDS: cancer hazard (in humans)

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: irritation, metal fume fever, difficulty breathing

LONG TERM EXPOSURE: same as effects reported in short term exposure, chest pain, difficulty breathing, lung damage, cancer

SKIN CONTACT:

SHORT TERM EXPOSURE: irritation, itching

LONG TERM EXPOSURE: no information on significant adverse effects

EYE CONTACT:

SHORT TERM EXPOSURE: 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: Y

IARC: Y

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: Use extinguishing agents appropriate for surrounding fire.

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

WATER RELEASE:

Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers.

OCCUPATIONAL RELEASE:

Collect spilled material in appropriate container for disposal.

SECTION 7 HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

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)

TITANIUM DIOXIDE:

- 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
- 6 mg/m3 DFG MAK (fine dust)
- 10 mg/m3 UK OES TWA (total inhalable dust)
- 4 mg/m3 UK OES TWA (respirable dust)

MEASUREMENT METHOD: Particulate filter; Acid; Atomic absorption spectrometry; NIOSH II(3) # S385

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

QUARTZ:

0.3 mg/m3 OSHA TWA (total particulate)
0.1 mg/m3 OSHA TWA (respirable particulate)
0.1 mg/m3 ACGIH TWA (respirable particulate)
0.05 mg/m3 NIOSH recommended TWA 10 hour(s) (respirable particulate)
0.15 mg/m3 DFG MAK (fine dust)

MEASUREMENT METHOD: Particulate filter; Low-temperature ashing; X-ray diffraction spectrometry; NIOSH III # 7500

VENTILATION: Provide local exhaust 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: Gray-brown to reddish-brown solid.

BOILING POINT: Not applicable

MELTING POINT: Not available

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

SPECIFIC GRAVITY: Not available

WATER SOLUBILITY: Not available

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: None reported.

INCOMPATIBILITIES: halo carbons, halogens, combustible materials, oxidizing materials, metals, acids, metal salts

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.

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.

TITANIUM DIOXIDE:

ALUMINUM: Reaction is accompanied by incandescence.
CALCIUM: Reaction is accompanied by incandescence.
LITHIUM: Reaction occurs around 200 C, with incandescence.
MAGNESIUM: Reaction is accompanied by incandescence.
POTASSIUM: Reaction is accompanied by incandescence.
SODIUM: Reaction is accompanied by incandescence.
ZINC: Reaction is accompanied by incandescence.

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

TITANIUM DIOXIDE:

IRRITATION DATA:

300 ug/3 day(s)-intermittent skin-human mild

TOXICITY DATA:

6820 mg/m³/4 hour(s) inhalation-rat LC50 (Dudick, Inc.); >24000 mg/kg
oral-rat LD50 (Dudick, Inc.); 250 mg/m³/6 hour(s)-4 week(s) intermittent
inhalation-rat TCLoCARCINOGEN STATUS: IARC: Human Inadequate Evidence, Animal Limited Evidence,
Group 3; ACGIH: A4 -Not Classifiable as a Human CarcinogenIncreased incidences of lung adenomas in rats of both sexes and of cystic
keratinizing lesions diagnosed as squamous-cell carcinomas in female rats
were observed in animals that had inhaled high but not low doses of titanium
dioxide. Intratracheal administration of titanium dioxide in combination
with benzo(a)pyrene to hamsters resulted in an increase in the incidence of
benign and malignant tumors of the larynx, trachea and lungs over that in
benzo(a)pyrene-treated controls.

ACUTE TOXICITY LEVEL:

Moderately Toxic: inhalation

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders

TUMORIGENIC DATA:

250 mg/m³ inhalation-rat TCLo/6 hour(s)-2 year(s) intermittent; 360 mg/kg
intramuscular-rat TDLo/2 year(s) intermittent; 260 mg/kg intramuscular-rat
TD/84 week(s) intermittent; 10 mg/m³ inhalation-rat TC/18 hour(s)-2 year(s)
intermittent

MUTAGENIC DATA:

micronucleus test - mouse intraperitoneal 3 gm/kg 3 day(s)-continuous; DNA
inhibition - hamster lung 500 mg/L

SILICON DIOXIDE:

CARCINOGEN STATUS: IARC: Human Limited Evidence, Animal Sufficient Evidence,
Group 2A (Crystalline silica), Human Inadequate Evidence, Animal Inadequate
Evidence, Group 3 (Amorphous silica); EC: Category 2Adenocarcinomas and squamous-cell carcinomas of the lung in rats were
produced after inhalation or repeated intratracheal instillation of various
forms of crystalline silica.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders

QUARTZ:

TOXICITY DATA:

16 mppcf/8 hour(s)-17.9 year(s) intermittent inhalation-human TCLo; 300
ug/m³/10 year(s) intermittent inhalation-human LCLo; 90 mg/kg
intravenous-rat LDLo; 200 mg/kg intratracheal-rat LDLo; 40 mg/kg
intravenous-mouse LDLo; 20 mg/kg intravenous-dog LDLo; 80 mg/m³/26 week(s)

intermittent inhalation-rat TCLo; 108 mg/m³/6 hour(s)-3 day(s) intermittent inhalation-rat TCLo; 58 mg/m³/13 week(s) intermittent inhalation-rat TCLo; 1475 ug/m³/8 hour(s)-21 week(s) intermittent inhalation-mouse TCLo; 4932 ug/m³/24 hour(s)-39 week(s) continuous inhalation-mouse TCLo; 28 mg/m³/3 week(s) intermittent inhalation-guinea pig TCLo

CARCINOGEN STATUS: NTP: Anticipated Human Carcinogen; IARC: Human Sufficient Evidence, Animal Sufficient Evidence, Group 1; EC: Category 2
Adenocarcinomas and squamous-cell carcinomas of the lung in rats were produced after inhalation or repeated intratracheal instillation of various forms of crystalline silica. Malignant lymphomas developed in rats after intrapleural and intraperitoneal injections of quartz suspensions and intrapleural injection of cristobalite and tridymite. Epidemiologic studies indicate lung cancer occurs more frequently among silicotics than in the general population.

ACUTE TOXICITY LEVEL: Insufficient Data.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders

TUMORIGENIC DATA:

50 mg/m³ inhalation-rat TCLo/6 hour(s)-71 week(s) intermittent; 45 mg/kg intraperitoneal-rat TDLo; 90 mg/kg intravenous-rat TDLo; 90 mg/kg intrapleural-rat TDLo; 111 mg/kg intratracheal-rat TDLo; 100 mg/kg intratracheal-rat TDLo/19 week(s) intermittent; 900 mg/kg implant-rat TDLo; 4000 mg/kg implant-mouse TDLo; 83 mg/kg intrapleural-hamster TDLo; 90 mg/kg intraperitoneal-rat TD/4 week(s) intermittent; 450 mg/kg intraperitoneal-rat TD/4 week(s) intermittent; 4554 mg/kg implant-rat TD; 200 mg/kg intrapleural-rat TD; 100 mg/kg intrapleural-rat TD; 100 mg/kg intrapleural-rat TD; 100 mg/kg intrapleural-rat TD

MUTAGENIC DATA:

micronucleus test - human lung 40 ug/cm²; micronucleus test - hamster lung 160 ug/cm²

ADDITIONAL DATA: Smoking may enhance the toxic effects.

HEALTH EFFECTS:

INHALATION:

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:

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.

TITANIUM DIOXIDE: Inhalation may cause irritation and coughing. Nuisance dusts may cause unpleasant deposits in the nasal passages.

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

QUARTZ: Exposure to high concentrations may cause physical discomfort of the upper respiratory tract.

CHRONIC EXPOSURE:

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.

TITANIUM DIOXIDE: A few cases of slight fibrosis without disabling injury have been reported from occupational exposure. Rats repeatedly exposed to concentrations of 10-328 million particles/ft³ for as long as 13 months showed small focal areas of emphysema which were attributed to large deposits of dust. Rats exposed to concentrations of 10, 50, and 250 mg/m³ for 6 hours/day, 5 days/week for 2 years showed no abnormal clinical signs, body weight changes, or excess mortality in any exposed group. There were however dose-dependent increases in the incidence of pneumonia, tracheitis and rhinitis with squamous metaplasia in the anterior nasal cavity. At 10 mg/m³, the pulmonary response satisfied the criteria for a nuisance dust. Bronchioalveolar adenomas and cystic keratinizing squamous cell carcinomas occurred only at the 250 mg/m³ level, twenty-five times the threshold limit value. These lung tumors were different from common human lung cancers in terms of tumor type, location, and tumorigenesis, and were devoid of tumor metastasis.

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.

QUARTZ: Inhalation of very high concentrations of finely divided crystalline silica dust, exposure ranging from a few weeks to 4-5 years, may cause a rapidly developing silicosis, characterized by pulmonary insufficiency with severe dyspnea, violent coughing, tachypnea, weight loss, and cyanosis leading to the development of cor pulmonale and death

within a relatively short period of time. A slowly developing silicosis may result from exposure for 6 months-30 years to relatively low levels of the dust. The first symptom is usually a slowly increasing, non-disabling, exertional dyspnea due to pulmonary fibrosis and the emphysema associated with it. Continued exposure may increase the rate of progression of the disease. Also, the fibrogenic action may continue when exposure ceases. As the fibrosis advances, other symptoms may include shortness of breath, productive cough, wheezing, chest tightness or pain, marked weakness, decreased capacity for work, and repeated non-specific chest illnesses. Cyanosis, clubbing of digits, orthopnea, or serious weight loss are not usually evident until the disease is advanced. Pulmonary infections, which may be indicated by hemoptysis, and cardiac decompensation may exacerbate the symptoms. Three major complications, which are the most frequent causes of death, are pulmonary tuberculosis, respiratory insufficiency which is due to the massive emphysematous and fibrotic changes and is sometimes accompanied by chronic cor pulmonale, and acute bronchopulmonary infection. A number of studies have shown that persons diagnosed as having silicosis have an increased risk for dying from lung cancer. This increase has been seen among miners, quarry workers, foundry workers, ceramic workers, granite workers, and stone cutters. In some of these studies, the risk of lung cancer increased with the duration of employment. Various forms and preparations of crystalline silica produced adenocarcinomas and squamous cell carcinomas of the lungs in rats.

SKIN CONTACT:**ACUTE EXPOSURE:**

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

TITANIUM DIOXIDE: Topically it is reported to be devoid of toxicity and chemically non-irritating. However, titanium dioxide may occasionally be so occlusive that it produces miliaria.

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

QUARTZ: May cause irritation of intact skin due to mechanical abrasion. If the skin is abraded, a heavy growth of scar tissue may be induced.

CHRONIC EXPOSURE:

ALUMINUM OXIDE (ALUMINA): No data available.

TITANIUM DIOXIDE: Application of 300 ug for 3 days intermittently to human skin produced mild irritation.

SILICON DIOXIDE: No data available.

QUARTZ: No data available.

EYE CONTACT:**ACUTE EXPOSURE:**

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

TITANIUM DIOXIDE: Introduction by tattooing into the cornea of rabbit eyes

and patients with corneal scars resulted in permanent white coloration, but no irritation.

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

QUARTZ: May cause irritation due to mechanical action. Particles of silica in the range of 2-3 micrometers introduced into the corneal stroma of rabbit eyes caused very little reaction. These same particles introduced into the anterior chamber resulted in an inflammatory reaction in 3-5 weeks with the formation of fibrotic nodules in the iridocorneal angle. Finely divided silica injected into the vitreous of rabbit eyes has caused necrosis of the retina and atrophy of the choroid.

CHRONIC EXPOSURE:

ALUMINUM OXIDE (ALUMINA): No data available.

TITANIUM DIOXIDE: No data available.

SILICON DIOXIDE: No data available.

QUARTZ: An abnormally high silicon content in the cornea, and a gradual decrease in visual acuity due to corneal opacities in the pupillary area, have been reported in a group of foundry workers.

INGESTION:

ACUTE EXPOSURE:

ALUMINUM OXIDE (ALUMINA): No data available.

TITANIUM DIOXIDE: Titanium dioxide has been reported to be physiologically inert. Ingestion of large quantities may cause intestinal obstruction. However, a pound has been ingested without apparent harm or distress.

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

QUARTZ: Effects of ingestion are due to mechanical action as crystalline silicas are biologically inert.

CHRONIC EXPOSURE:

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

TITANIUM DIOXIDE: Mice and rats fed 50,000 and 25,000 ppm for 103 weeks showed no evidence of toxicity and no increased incidence of tumors.

SILICON DIOXIDE: No data available.

QUARTZ: No data available.

SECTION 12 ECOLOGICAL INFORMATION

Not available

SECTION 13 DISPOSAL CONSIDERATIONS

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): N

SARA SECTION 302 (40CFR355.30): N

SARA SECTION 304 (40CFR355.40): N

SARA SECTION 313 (40CFR372.65): Y

ALUMINUM OXIDE (ALUMINA)

(fibrous forms)

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

ACUTE: N

CHRONIC: Y

FIRE: N

REACTIVE: N

SUDDEN RELEASE: N

OSHA PROCESS SAFETY (29CFR1910.119): N

STATE REGULATIONS:

California Proposition 65: Y

Known to the state of California to cause the following:

Silica, crystalline (airborne particles of
respirable size)

Cancer (Oct 01, 1988)

EUROPEAN REGULATIONS:

EC NUMBER: Not assigned.

SECTION 16 OTHER INFORMATION

MSDS SUMMARY OF CHANGES

SECTION 3 HAZARDS IDENTIFICATION

SECTION 6 ACCIDENTAL RELEASE MEASURES

FEDWIRE PROCEDURES

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.