USDA COMMODITY REQUIREMENTS

BAR4
BARLEY
FOR USE IN EXPORT PROGRAMS

Effective Date: 11/5/07
# USDA COMMODITY REQUIREMENTS
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### BARLEY
#### FOR USE IN EXPORT PROGRAMS

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Part 1  COMMODITY SPECIFICATIONS

Section 1.1  COMMODITIES

A. All barley products shall be tested for vomitoxin by Federal Grain Inspection Service (FGIS). Any sublot in excess of two p.p.m. shall be rejected to the contractor's account in accordance with FAR clause 52.246-2.

B. The barley shall meet the specifications of the grade offered as defined in the “Official United States Standards for Barley,” in effect at the time the applicable solicitation for offers is issued. The standards are available at: http://www.gipsa.usda.gov/GIPSA/webapp?area=home&subject=grpi&topic=sq-ous

C. Hulled cut barley shall be milled from U.S. No. 1 food grade supplies. The barley shall be hulled and cut in accordance with good manufacturing practices. The bran layer shall remain intact for nutritional content.

D. The product shall conform to the following analyses, unless otherwise specified:

<table>
<thead>
<tr>
<th>CHEMICAL PROPERTIES</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture</td>
<td>---</td>
<td>14.0%</td>
</tr>
<tr>
<td>Protein (NX 6.25)</td>
<td>10.0%</td>
<td>---</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHYSICAL PROPERTIES: 100 g. Rotap 2 min with hammer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
</tr>
<tr>
<td>On U.S. #8</td>
</tr>
<tr>
<td>On U.S. #12</td>
</tr>
<tr>
<td>On U.S. #16</td>
</tr>
<tr>
<td>On U.S. #20</td>
</tr>
<tr>
<td>Thru U.S. #20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MICROBIOLOGICAL PROPERTIES</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerobic Plate Count</td>
<td>---</td>
<td>100,000 gm</td>
</tr>
<tr>
<td>Coliform</td>
<td>---</td>
<td>100 gm</td>
</tr>
<tr>
<td>Yeasts and Molds</td>
<td>---</td>
<td>1,000 gm</td>
</tr>
<tr>
<td>E. coli</td>
<td>Negative</td>
<td></td>
</tr>
<tr>
<td>Salmonella</td>
<td>Negative</td>
<td></td>
</tr>
</tbody>
</table>
Section 1.2 INSPECTION-ALL COMMODITIES

A. The contractor shall be responsible for arranging and obtaining FGIS, or any other organization designated by FGIS, official domestic and export weight and grade certificates. Procedures to follow and a schedule of fees for this service may be obtained at http://151.121.3.117/aboutus/servicemap/usmap.htm. Contractors are required to notify the Government immediately of lots that fail to meet contract requirements.

B. The average net weight of the sampled shipping units as determined by FGIS shall not be less than 98 percent of the marked net weight. Failure of the lot to meet the average net weight requirement shall cause rejection of the involved lot pursuant to FAR clause 52.246-2.

C. The contractor shall forward the original domestic official weight and grade certificate to FGIS at the destination port. FGIS will verify the identity preserved condition of the lots of grain and issue an export inspection certificate stating that the grain is free from infestation. Export certificates shall be mailed to:
   Kansas City Commodity Office
   Export Operations Division
   Bulk Commodities/Freight Forwarding Branch, Stop 8738
   P.O. Box 419205
   Kansas City, MO  64141-6205

D. If the product fails to meet contract specifications on one or more factors on the first inspection, the contractor may arrange with FGIS for subsequent inspections of the commodity. The inspections may be conducted at origin or a subsequent point of delivery if the provisions of Title 7 CFR 868.40 through 868.63 issued under the Agricultural Marketing Act of 1946, as amended, with respect to retest, appeal, and new inspections can be met. When subsequent inspections of the product are made, the results of the last inspection will be used as the basis for payment under the contract.

E. FGIS will perform a condition of container examination in accordance with the United States Standards for Condition of Food Containers (7 CFR Part 42) and the Agricultural Marketing Service Handbook for Inspection of the Condition of Food Containers.

Part 2 CONTAINER AND PACKAGING REQUIREMENTS

Section 2.1 GENERAL
This part provides the container specifications and packaging materials requirements used under this contract.

Section 2.2 CONTAINERS AND MATERIALS
A. All containers and packaging shall be constructed to meet the requirements of the Food and Drug Administration (FDA) for
safe contact with the packaged product. The contractor shall obtain and maintain documentation from the container or packaging material manufacturer to verify that the containers and packaging materials used in this contract were in compliance with the Government’s regulatory requirements for safe contact with food products as required in the Master Solicitation, Part 3, Section A, Number 3.

B. Questions concerning the containers and materials should be directed to:
   USDA/FSA/DACO
   Room 5755 – South Bldg, STOP 0551
   1400 Independence Avenue SW
   Washington, DC 20250-0551
   ATTN: Packaging

C. If the contractor purchases packaging and container ingredients from a foreign country and/or the package and container is manufactured in a foreign country, the package and container SHALL NOT display country of origin labeling. Phrases similar to but not inclusive of, “Made in [Name of Foreign Country.]” or “Product of [Name of Foreign Country.]” are strictly prohibited.

Section 2.3 25-KILOGRAM MULTIWALL PAPER BAGS

A. Twenty-five kilograms of product shall be packed in Pinch Bottom Open Mouth (PBOM) style multiwall paper bags. The use of recycled materials is not required if performance or food safety is jeopardized.

B. The bag shall have two inner walls of 50-pound nominal basis weight natural kraft paper and an outer third wall of 60-pound nominal basis weight wet strength paper in accordance with Uniform Freight Classification, Rule 40, Section 10, Tables A and B, as amended.

C. The bag shall have a inner plastic liner constructed of linear low density polyethylene (LLDPE) film. The film liner shall:
   (1) Be a minimum thickness of 2.5 mil. with a density of 0.914 to 0.929 g/cc and a minimum heat-seal coefficient of 0.60. The film shall have a minimum impact resistance of 265g when tested in accordance with ASTM D-1709 Method A, as amended, Falling Dart.
   (2) The film liner shall have 8 to 12 micro perforations in each gusset area to allow for the evacuation of air from the product after filling and sealing.
   (3) Have a sufficient amount of anti-block. It shall be free from any blocking at 50°C and not subject to reblock at 70°C.
The film liner shall be loose for the full length of the bag except around the bottom and top closure areas. At the top and bottom closure areas, the liner shall adhere to the inner-most paper ply (time lamination). The laminating adhesive shall be machine direction applied in narrow strips no longer than 4 inches from each end. The use of gravure lamination to bond the liner to the inner-most paper ply for the entire length of the bag is prohibited.

Be adhered to prevent product from getting between the inner film and the next outer paper ply.

Not exceed a maximum average water vapor permeability of 0.65 grams per 100 square inches in 24 hours at 90 percent relative humidity and a temperature of 100°F plus or minus 5 degrees.

Be manufactured to meet Food and Drug Administration requirements for food products (21 CFR 177.1520, as amended).

Be heat-sealed at the bottom by the bag manufacturer. The top of the liner shall be heat-sealed by the packer once the bag has been filled with product.

D. Longitudinal seams of the outer wall of the bag shall be glued so that there is no more than 3/16-inch of unglued edge on the outer surface of the bag. The adhesives used in the longitudinal seams and pasted end closures shall be water resistant. Water resistant adhesive of outer ply longitudinal seams or pasted end closures shall be tested for resistance to water in accordance with TAPPI T456 (Wet Tensile Test), except as follows:

Cut test specimens 1-inch wide so that the longitudinal seam or pasted end closure runs perpendicular to and is centered relative to the long dimension of the specimen. The test specimen shall encompass all adhesive bonded areas included in fabricating the seam or end closure. In the case of multi-ply end closures, clamp all plies in the jaws of the tester. Immerse the specimens in not less than 1-inch of the distilled water for 24 hours. Run a wet tensile test. A test specimen fails the test if failure occurs with the separation of the seam or closure and less than 25% of the separated adhesive area shows fiber tear. Failure of more than 10% of the specimens shall be reported as failure of the adhesive.

Section 2.4 25-KILOGRAM HIGH PERFORMANCE PACKAGING CONSTRUCTIONS

A. Contractors shall utilize one of the following constructions when the solicitation requires the use of high performance packaging:

(1) Multiwall paper bag constructed of: One (1) ply inner film liner guaranteed 2.5 mil. minimum thickness linear low density polyethylene, four (4) plies of 50-pound natural multiwall kraft (NMK) paper, and one (1) outer ply of 60-pound wet strength natural multiwall kraft (WSNMK) paper; or

(2) Multiwall paper bag constructed of: 3.1 mil. (70 grams per square
meter) film consisting of two or more layers of co-extruded polyolefin film with alternating angles of orientation, laminated together and biaxially oriented, two (2) plies of 50-pound NMK paper, and one (1) outer ply of 60-pound WSNMK paper. The bag shall be heat-sealed at the bottom by the bag manufacturer. The top of the liner shall be heat-sealed by the packer once the bag has been filled with products.

(3) Both bag constructions shall:
   (a) be uniquely marked with a one (1) inch blue stripe located approximately three (3) inches above the letters “USA” and extending around the width of each bag;
   (b) meet the specifications and testing requirements outlined in these commodity requirements.

Section 2.5 OUTER CLOSURE AND SEALS

A. The bottom and top of the 25-kilogram bag shall be closed to provide a tight seal using hot-melt or thermoplastic adhesive applied in a single band along the top edge of the long side of the bag and extending downward at least 3/4 inches. The fold line on the manufacturer closure end shall be 1-3/4 inches plus or minus 1/4-inch. The fold line on the field closure end shall be 1-5/8 inches plus or minus 1/4-inch. Refer to section 3.1.L. for bag closure guide location bars.

B. The outer wall of the bag shall be stepped at the bottom and top fold over flap, beyond all inner walls, in order to provide a positive seal over the ends of the inner walls so that there is no more than 3/16 inches unbonded edge beyond the adhesive line. The inner polyethylene film may be heat-sealed.

Section 2.6 PERFORMANCE TEST PROCEDURES

A. All bags shall be capable of withstanding the following performance test for impact resistance:
   (1) Ten filled and sealed bags shall each survive a single drop test on the butt and side on a shock machine that produces for each test a velocity change of 195 inches per second using a shock duration of .002 seconds without loss of product.
   (2) Testing shall be conducted under standard temperature (73.4°F plus or minus 1.8°F) and relative humidity (50% plus or minus 2%) conditions.
   (3) Filled bags shall be placed in the conditioned atmosphere for sufficient time before the tests are conducted for the bag materials to reach equilibrium.
   (4) Bags submitted under this performance specification shall conform to all other applicable material, construction, and performance specifications.

B. Test Laboratories
   Independent or private laboratories known to be capable of conducting the shock machine test described above are as follows:
### Section 2.7 SEAL PEEL TEST

#### A.
The contractor shall perform periodic seal peel tests on the filling end of multiwall paper bags to determine whether the paper plies are adequately adhered. The seal peel test shall be performed at every start up and a minimum of every hour during commodity packing operations. The seal peel test shall demonstrate tear of paper fiber (fiber tear) for all paper plies. The contractor shall maintain records of seal peel test results for review by the Government.

#### B.
The seal peel test shall be performed as follows:

1. Run an empty bag through the sealing unit.
2. Cut bag approximately 3 to 8 inches below the seal.
3. Cut both gussets along the center crease to the top of the bag end.
4. Spread bag to expose poly liner.
5. Check inside plastic liner along the closure and gussets to determine that the liner is heat-sealed. Pinholes, no larger than 1/8 inch in diameter, are allowable in the closure.
6. Grip inside fold at center of the bag end.
7. Pull apart sides of the bag end at the center, separating seals. (If the seal is good, fibers shall completely cover adhesive. If the seal is poor, glossy adhesive will show).

#### C.
The contractor's seal peel test records shall include the following information for each test: date, time, employee's name, product, contract number, railcar number, and result of the test. The result of the test shall be reported as either "good seal" or "poor seal", "insufficient fiber tear", as applicable. The contractor shall take corrective action if the seal peel test indicates a poor seal.
and shall retest until a good seal is achieved.

PART 3  MARKING REQUIREMENTS

Section 3.1  MARKINGS

A. The bags shall be marked in the color specified in the markings exhibits. Any markings not shown on the exhibits shall be printed in blue. When printed on the bag, the colors blue and red shall match the Pantone Matching System (PMS) chart numbers 280 and 200, respectively, to the extent practicable.

B. All dimensions are approximate. Unless otherwise specified, all characters shall be in normal block print.

C. The US flag shall be 5 inches high and 9 inches in total width on the front and back of the applicable bag, see exhibits.

D. The letters USA shall be Univers black (75) oblique, or Helvetica extra bold with 70% scaling and -70 tracking or equivalent to match the style as shown in the exhibits. The letters USA shall be 4 3/4 inches high and 9 3/4 inches in total width. The three stripes adjacent USA shall be 1 inch high and must extend to the edge of the panel.

E. The USAID vertical identity, including the logo, brand name, and tagline, shall be printed in the same style as shown in the markings exhibits sized approximately 7 ½ inches high and 9 3/8 inches in total width. The USAID logo shall be 4 ¼ inches in diameter. The USAID brand name shall be 2 inches in height. The tagline “FROM THE AMERICAN PEOPLE” shall be ½ inch in height, see exhibits. The USAID vertical logo is available to download at http://www.usaid.gov/branding/downloadsweb.html.

F. The USDA logo shall be 4 ½ inches high and 6 ½ inches in total width, see exhibits.

G. The commodity name shall be 1 1/4 inch print. Immediately below the commodity name on the front and back panels, insert additional commodity description in 5/8 inch print, if applicable.

H. The contract number and the statement "NOT TO BE SOLD OR EXCHANGED" shall be 3/4 inch print. The net weight, bag dimensions, and the Standard Marking Requirements (SMR) or Language Marking Requirements (LMR) number shall be centered at the bottom of the bag in 1/2 inch print. See exhibits. The contractor shall obtain a waiver, in writing, from the Government to print the contract number using on-line printing on filled bags.

I. The letters or symbols used in the language markings for LMR-1, LMR-3 and LMR-4, LMR-5, LMR-7, and LMR-8 should be sized approximately 1 5/8 inches.
The language markings for LMR-2 and LMR-6 should be sized to fit, see exhibits.

J. Lot numbers, production codes or any other means of identification required to meet the traceability requirement shall be printed as small as possible, yet legible.

K. Gussets. The USAID identity shall be a total of 2 ¾ inches in height and 8 ½ inches in total width and printed in both gussets. The letters ‘USAID’ shall be 1 ¾ inches high and the tagline ‘FROM THE AMERICAN PEOPLE’ shall be 3/8 inch high, as shown in the applicable exhibits.

L. Gussets. The letters USA shall be 3 inches high and printed in both gussets, as shown in the applicable exhibits

M. Bag Closure Guide Location Bars (BCGL) shall be printed on the front panel of all multi-wall paper bags, as shown in the exhibits. The BCGL bars shall be plainly visible, approximately one inch in length, printed in blue in two parallel rows evenly spaced over the entire width of the bag. The BCGL bars are to be used as visual quality control verification. Visually identifying two bars or no bars on the bag would indicate a bag closure failure. Visually identifying one bar would indicate a proper bag closure. (Exhibits A and B)

Section 3.2 MARKING DESCRIPTIONS

The Government shall furnish required markings within two business days after the date of the contract. The procurement of containers should be deferred for at least two business days after the date of the contract.

The following standard marking requirements may be requested under the contract:

Standard Marking Requirement #1 (SMR-1)
USAID – Distribution
Front: US Flag, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USAID logo, contract number, net weight, dimensions, “SMR-1”. See exhibit SMR-1, front.
Back: Identical to front. See exhibit SMR-1, back.

Standard Marking Requirement #2 (SMR-2)
FAS - Distribution
Front: USA with stripes, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USDA logo, contract number, net weight, dimensions, “SMR-2”. See exhibit SMR-2, front.
Back: Identical. See exhibit SMR-2, back.

Standard Marking Requirement #3 (SMR-3)
USAID – Monetization
Front: US Flag, the commodity name, USAID logo, contract number, net weight, dimensions, “SMR-3”. See exhibit SMR-3, front.
Back: Identical to front. See exhibit SMR-3, back.

Standard Marking Requirement #4 (SMR-4)
FAS or USAID - Monetization
Front: USA with stripes, the commodity name, contract number, net weight, dimensions, “SMR-4”. See exhibit SMR-4, front.
Back: Identical. See exhibit SMR-4, back.

Language Marking Requirement #1 (LMR-1)
USAID – Distribution for North Korea
Front: US Flag, the commodity name, the words ”NOT TO BE SOLD OR EXCHANGED,” USAID logo, contract number, net weight, dimensions, and “LMR-1.”. See exhibit LMR-1, front.
Back: US Flag, the commodity name, North Korean language panel, and “LMR-1” only. See exhibit LMR-1, back.

Language Marking Requirement #2 (LMR-2)
USAID – Distribution for Afghanistan, with Pashtu and Dari
Front: US Flag, the commodity name, the words ”NOT TO BE SOLD OR EXCHANGED,” USAID logo, contract number, net weight, dimensions, and “LMR-2.” See exhibit LMR-2, front.
Back: US Flag, the commodity name, Pashtu and Dari language panel, and “LMR-2” only. See exhibit LMR-2, back.

Language Marking Requirement #3 (LMR-3)
USAID – Distribution for South Africa Region
Front: US Flag, the commodity name, the words ”NOT TO BE SOLD OR EXCHANGED,” USAID logo, contract number, net weight, dimensions, and “LMR-3.” See exhibit LMR-3, front.
Back: US Flag, the commodity name, English language panel, and “LMR-3” only. See exhibit LMR-3, back.

Language Marking Requirement #4 (LMR-4)
USAID – Distribution for Iraq with Arabic
Front: US Flag, the commodity name, the words ”NOT TO BE SOLD OR EXCHANGED,” USAID logo, contract number, net weight, dimensions, and “LMR-4.” See exhibit LMR-4, front.
Back: US Flag, the commodity name, Arabic language panel, and “LMR-4” only. See exhibit LMR-4, back.

Language Marking Requirement #5 (LMR-5)
FAS – Distribution for North Korea
Front: USA with stripes, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED,” USDA logo, contract number, net weight, dimensions, and “LMR-5.” See exhibit LMR-5, front.
Back: USA with stripes, the commodity name, North Korean language panel, and “LMR-5” only. See exhibit LMR-5, back.

**Language Marking Requirement #6 (LMR-6)**
**FAS – Distribution for Afghanistan, with Pashtu and Dari**
Front: USA with stripes, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED,” USDA logo, contract number, net weight, dimensions, and “LMR-6.” See exhibit LMR-6, front.
Back: USA with stripes, the commodity name, Pashtu and Dari language panel, and “LMR-6” only. See exhibit LMR-6, back.

**Language Marking Requirement #7 (LMR-7)**
**FAS – Distribution for South Africa Region**
Front: USA with stripes, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED,” USDA logo, contract number, net weight, dimensions, and “LMR-7.” See exhibit LMR-7, front.
Back: USA with stripes, the commodity name, English language panel, and “LMR-7” only. See exhibit LMR-7, back.

**Language Marking Requirement #8 (LMR-8)**
**FAS – Distribution for Iraq with Arabic**
Front: USA with stripes, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED,” USDA logo, contract number, net weight, dimensions, and “LMR-8.” See exhibit LMR-8, front.
Back: USA with stripes, the commodity name, Arabic language panel, and “LMR-8” only. See exhibit LMR-8, back.

**Section 3.3 EMPTY BAG DIMENSIONS**
A. All bags shall be marked with the empty dimensions as follows:

<table>
<thead>
<tr>
<th>Gusseted Bags</th>
<th>Face Width X Gusseted Width X Finished Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat Tube Bags</td>
<td>Face Width X Finished Length</td>
</tr>
</tbody>
</table>

B. The bag dimensions shall be centered at the bottom of the bag, as small as possible, yet legible.

**Section 3.4 CONTAINERS WITH INCORRECT MARKINGS**
A. Any labels, bags, cans, can lids, cases, or any other type of packaging (hereinafter referred to as "containers") displaying incorrect markings may be used under a Government contract provided that the incorrect markings are obliterated and correct markings are applied in a permanent manner with approval of the contracting officer.
B. The appearance of containers in commercial or other channels either filled or unfilled bearing markings identifying the containers as part of a Government contract may cause the Government expense in determining whether commodities have been diverted from authorized use and in answering inquiries. The contractor shall take all necessary action to prevent the appearance in commercial or other channels of containers and container materials bearing any markings required under a Government contract, including those held by the contractor or others; e.g., overruns, misprints, etc. The contractor shall ensure that any container from a Government contract that appears in commercial or other channels shall have all markings required under this contract permanently obliterated.
BARLEY

NOT TO BE SOLD OR EXCHANGED

USAID FROM THE AMERICAN PEOPLE

CONTRACT ABCD01234
NET WEIGHT: 25 kg, 55.115 lb.
16 x 4 x 37
LMR-2
BARLEY

NOT TO BE SOLD OR EXCHANGED

USAID
FROM THE AMERICAN PEOPLE

CONTRACT ABCD01234
NET WEIGHT: 25 kg, 55.115 lb.
16 x 4 x 37
LMR-3

Gift of the People of the United States of America

USAID
FROM THE AMERICAN PEOPLE

LMR-3
BARLEY

NOT TO BE SOLD OR EXCHANGED

CONTRACT ABCD01234
NET WEIGHT: 25 kg, 55.115 lb.
16 x 4 x 37
LMR-4

USAID
FROM THE AMERICAN PEOPLE

BARLEY

LMR-4
BARLEY

NOT TO BE SOLD OR EXCHANGED

USDA

CONTRACT ABCD01234
NET WEIGHT: 25 kg, 55.115 lb.
16 x 4 x 37
LMR-5
BARLEY

NOT TO BE SOLD OR EXCHANGED

CONTRACT ABCD01234
NET WEIGHT: 25 kg, 55.115 lb.
16 x 4 x 37
LMR-6
BARLEY

NOT TO BE SOLD OR EXCHANGED

USA

CONTRACT ABCD01234
NET WEIGHT: 25 kg, 55.115 lb.
16 x 4 x 37
LMR-8

BARLEY

USA

لمحة من
الشعب الأمريكي

LMR-8
Bag Closure Guide Location

Pre-applied Hot Melt

Front of Bag
High Performance Bags:
1 inch blue stripe