



**DEPARTMENT OF THE ARMY**  
ROCKY MOUNTAIN DISTRICT VETERINARY COMMAND  
ATTN: MCVS-GPC  
1661 O'CONNELL BOULEVARD, BUILDING 1012  
FORT CARSON, CO 80913-5108

REPLY TO  
ATTENTION OF

July 25, 2009

Rocky Mountain District Veterinary Command

VC# 08-0078  
Rakhra Mushroom Farm, Corp.  
PO Box 2002  
Alamosa, CO 81101-0200

Dear Mr. Robert Ruybal:

On July 14, 2009, I conducted a routine sanitation audit of your establishment in accordance with MIL-STD 3006C. Your establishment received an acceptable rating and is recommended for continued listing in the Directory of Sanitarily Approved Food Establishments for Armed Forces Procurement. A copy of the Sanitation Audit Report is enclosed. We request that you submit to us the enclosed Corrective Action Reques(s) containing specific root cause analysis and actions taken by your establishment to correct and prevent reoccurrence of the findings(s). Failure to return the documentation by 14 Oct 2009, may result in the recommendation to remove your establishment from listing in the *Directory of Sanitarily Approved Food Establishments for Armed Forces Procurement*.

You may contact us at the address indicated at the top of this letter or I can be reached by telephone at 719-526-4354, FAX: 719-524-4116, or Email: [EmileeVenn@LN.amedd.army.mil](mailto:EmileeVenn@LN.amedd.army.mil).

Sincerely,

Emilee Venn  
Captain, US Army  
Auditor In Charge

Enclosure(s)  
as  
CF:  
Commander, U.S. Army Veterinary Command

**FINAL  
SANITATION AUDIT REPORT**

<b>1. VC#/NAME/ADDRESS/PHONE/ESTAB #/EMAIL:</b> VC# 08-0078 Rakhra Mushroom Farm, Corp. 10719 Road 5 S Alamosa, Colorado 81101-7002 719-589-5882 Fax 719-589-5886	<b>2. UNIT/IRC/ADDRESS/PHONE/AUDITOR/EMAIL:</b> Rocky Mountain District Veterinary Command ATTN: MCVS-GPC 1661 O'Connell Boulevard, Building 1012 Fort Carson, CO 80913-5108 Phone: (719) 526-1216 FAX: (719) 526-1215 AUDITOR: CPT Emilee Venn EMAIL: EmileeVenn@LN.amedd.army.mil Phone: 719-526-4354 Fax: 719-524-4116
<b>3. NAME &amp; TITLE OF THE ESTABLISHMENT'S POC:</b> Mr. Robert Ruybal, Safety Manager	<b>4. ESTABLISHMENT'S OWNER:</b> Mr. Baljit Nanda
<b>5. DATE OF AUDIT:</b> 14 Jul 2009	<b>6. TYPE OF AUDIT:</b> Routine
<b>7. PRODUCT(S) FOR DIRECTORY LISTING:</b> mushrooms (fresh whole & sliced)	<b>8. OTHER PRODUCT(S) PRODUCED OR STORED:</b> Small quantities of mushroom that are produced at other facilities may be stored on site.
<b>9. SAMPLING IS REQUIRED IN CONJUNCTION WITH THIS AUDIT.</b> No	
<b>10. AUDIT RATING:</b> Acceptable	<b>11. DELIVERY STATUS:</b>
<b>12. APPENDICES USED AND ENCLOSURES:</b> Appendix A, R, & Y	
<b>13. OTHER INSPECTION AGENCIES/AUDIT ORGANIZATIONS:</b> -Silliker: 28 May 2009 / Good rating / 94.8% / reviewed - acceptable	
<b>14. REMARKS:</b> -Water Potability: Sangre De Cristo Laboratory / 22 May 2009 / well source negative for coliforms / acceptable. Numerous samples from well source and inside plant taken from May-June 2009 indicate facility is IAW EPA Primary Drinking Water standards. Arsenic is now in compliance. - Government Contracts: Third party distribution of product to military installations through Shamrock, Sysco, US Food Service and Federal Fruits. Facility does provide product directly to Dominos Pizza as well. Product distributed to military installations in Colorado, New Mexico, California and west Texas. -Frequency: quarterly -Reviewed sanitation, training, CCP, pest control, and mock recall records / acceptable. -Major finding during audit -CW3 Fritz Jump accompanied lead auditor	
<b>15. BRAND NAMES AND POINT OF ORIGIN CODE(S)*:</b> -Brand: Rakhra, Sysco, Zanlos Foods, Giambrocco Food Service, Oregon Trail, Cross Valley Farms, Dominos Pizza, Markon. -Code: 038 and/or name and address. -Landmark: Primary container <b>EU PLANT CODE*:</b> None * If code is not applicable or not available, enter None.	
<b>16. COMPANY ALIAS:</b> None	

**FOR OFFICIAL USE ONLY**

17. REQUEST FOR REDUCTION: NA

### FINDINGS

ESTABLISHMENT: VC#: 08-0078 - Rakhra Mushroom Farm, Corp. 08-0078

AUDIT DATE: 14 Jul 2009

SCORE: M

SUBPART PARA: E5

REQUIREMENT: Methods to exclude physical contaminants are established and monitored (e.g., metal detection, visual screening, sieves, or other suitable effective means IAW best industry practices). (21 CFR 110.80(b)).

DESCRIPTION: Metal detector could not detect all test strips placed under mushroom containers for one pass. It detected them a second time through. Machine needs to be serviced or calibrated.

SCORE: O

SUBPART PARA: B3

REQUIREMENT: Buildings (to include floors, walls, and ceilings), fixtures (to include those that allow dripping and condensation), utensils, and other physical facilities of the plant are maintained in a sanitary condition and in good repair. (21 CFR 110.20(b) & 110.35(a)).

DESCRIPTION: Large gap present under the dry storage area door. The seal under the loading dock door is unserviceable. Numerous areas along exterior walls are in disrepair.

SCORE: O

SUBPART PARA: E3

REQUIREMENT: Foods are maintained under conditions during warehousing and distribution that will protect the food item and its container against physical, chemical, and microbial contamination as well as against deterioration. (21 CFR 110.93) and 21 CFR 110.80(b)).

DESCRIPTION: Peeling paint and condensation present on interior ceiling of vacuum cooler. Dirt and grime present along ceiling of final product storage cooler risking contamination. No production code could be found to identify Alamosa facility on primary packaging of some finished products bound for Sysco foods.

SCORE: O

SUBPART PARA: J2

REQUIREMENT: The outside grounds and roof are adequately safeguarded. (AIB, Section 2.0)

DESCRIPTION: Security findings were discussed with management

AUDITOR'S TYPED NAME & SIGNATURE

DISTRICT COMMANDER'S TYPED NAME & SIGNATURE

DIGITALLY SIGNED BY: CPT Emilee Venn ON  
07/25/2009 11:33:55 AM

DIGITALLY SIGNED BY: CW3 Fritz Jumpp ON 08/03/2009  
04:04:41 PM

REGION COMMANDER'S TYPED NAME & SIGNATURE

DIGITALLY SIGNED BY: CW5 Joseph Goldsmith ON 08/05/2009 10:35:31 AM

\* DEFECT: C-Critical, M-Major, O-Observation

### METHODOLOGY

ESTABLISHMENT: VC#: 08-0078 - Rakhra Mushroom Farm, Corp. 08-0078

**PERSONNEL/ADMINISTRATION:**

Rakhra Mushrooms is owned by Mr. Baljit Nanda.  
- General manager - Mr. Lynn Mortensen  
- Safety Officer/QA - Mr. Robert Ruybal  
- Plant Manager - Christopher Street

**GENERAL:**

FOR OFFICIAL USE ONLY

- OPERATING HOURS: The plant operates 24 hours per day, seven days per week. Normal hours of harvest and production: 0800-1700 hours daily.

-CODE DATING/LABELING: "Rakhra mushrooms" may be on the packaging along with the city and state. In some instances just the name and state appears on the packages. The first three digits of the production code - 038 - indicate the Alamosa facility. For example: 038 111 06. 038=plant code, 111=Julian date of production, 06=grow room. Other labels (Sysco, Dominos) may be name, city, state or a line code. A0150B1001. A=plant code, 015=Julian date, 0=year, B=crew who picked product, 1001=packaging line. Use by date coded on case or package: day/month/year or production date=julian date

-SHELF LIFE: The recommended shelf life for mushrooms is 14 days based upon industry standards if maintained at between 40 and 45 degrees F.

-# OF EMPLOYEES: There are approximately 270 full-time personnel employed at this plant. There are three work shifts a day.

-OUTPUT: Rakhra Mushrooms grows, slices and packages mushrooms. The plant has a capacity of approximately 300,000 lbs. of mushrooms per week. The plant's average production is approximately 40,000 to 45,000 lbs of mushrooms picked daily.

-TRACE/RECALL PROCEDURES: Forward - list of all daily deliveries they supply. Back - Maintains records of lot#, crop#, room#, crew - person picked, spawn #, in case of a recall. Mock recalls are conducted a minimum of every 6 months, can be more frequent. Last recalls done 13 May 2009 and 26 February 2009-acceptable results. Facility only mock recalls one type of product from one delivery to one company. Recall procedures to be improved. Recall Team: Robert Ruybal (Recall Manager), Lynn Mortensen (General Manager), Jason Gartrell (Assistant Coordinator), Karmjit Sahl (Production Harvesting), Christopher Street (Operations Manager).

-WATER SOURCE: The water that is used in this facility is obtained from four on site wells. Only one well is used for the production line. Well water is checked for coliforms and heavy metals annually. Radiologicals are tested every 4 years. Reviewed records and found water source is IAW EPA Primary Drinking Water Standards. May 2009 arsenic levels are acceptable. All water entering the facility passes through a chlorination station maintained at 0.03ppm. Backflow prevention device is inspected and certified annually-last done 1 April 2009 / acceptable.

#### FACILITIES:

The plant is located in a rural area north of the city Alamosa off Highway 17 surrounded by farms and pastureland. The building is a concrete material, single story structure occupying approximately 144,000 square feet (includes the compost make area) under one roof and was constructed in 1981.

-Equipment:

- 1 slicer
- 1 prepack machine plus a spare
- 1 metal detector
- 2 packaging lines ( prepack and bulk)
- 10 tunnels for pasteurization

#### FOOD PROTECTION AND SANITATION:

-HACCP/FOOD SAFETY PROCEDURES: HACCP: Rakhra maintains a HACCP plan dated October 2008 that was reviewed April 2009 by management. Two CCPs have been identified.

- CCP1-Pre-harvest interval - no harvest within a specific time period of fungicide or pesticide application. Delay harvest until proper harvest interval is achieved. If product has already been harvested, company will trace and dispose of product. If already shipped, institute a recall. The critical limits of CCP1 are 12 hours for Mertext, 48 hours for Benlate and 0 hours for Turbocide (entry permitted upon clearing). verification is visual IAW chemical manufacturer's requirements.

- CCP2 - metal detectors. 3.5mm stainless steel, 3.0 mm non-ferrous metal, and 2.0mm ferrous metal. Metal detector is normally verified three times daily with testing sticks. Corrective Action - If device doesn't work during testing, all product is sent back through the detector from the last recorded check. The process flow is accurately documented and CCPs are recorded; however,

-RAW MATERIALS: Compost is manufactured on-site from water, straw, cotton seed hulls, and processed poultry waste that are received from various approved suppliers as determined by Rakhra. Mushroom spores (Agaricus bisporas) are purchased from Sylvan America in Nevada. Foam Trays - Central Bag and Burlap of Denver, CO. Plastic Film & Cups - Expedex of Colorado Springs, CO. A one-time letter from suppliers is maintained on-site to certify compliance to product specifications. Certificates of Analysis are provided for deliveries of spores and cotton seed hulls. All in-coming products are inspected for condition and quantity and recorded on a receipt log. Shipments are received regularly throughout the week.

**FOR OFFICIAL USE ONLY**

**-LABORATORY TESTING:** - Sangre De Cristo Labs of Alamosa performs the annual water testing for coliform, HPC, nitrates/nitrites, copper, lead, radiologicals and heavy metal testing IAW EPA standards. Colorado Analytical Laboratories in Brighton, CO performs radiological testing. In-house lab regulates ammonia and nitrogen concentrations within the facility.

Environmental testing is done every 2 months for Listeria (limits -0), and Total Coliforms (limits - 100 cfu/sq in) by Warren Analytical Laboratories in Greeley, CO. Last tested: Listeria - 3 March 2009 - neg, Total coliform - 3 March 2009 - pass. No finished product testing is performed at this time.

**-EMPLOYEE SANITATION AND HYGIENE:** No pre-employment health exams are required. Food handler cards are also not required. The company maintains a formal documented training program. The program consists of induction training, HACCP, plant security, sanitation, hygiene and annual refresher training. Company manuals and posted signs are available in English and Spanish to facilitate understanding. Training records are maintained and were made available for the auditor to review. Work cloths are provided to some employees, depending on duties. Laundry service is provided by the facility through a third party vendor. Jewelry, hair and disease policies are addressed in company directives.

**PLANT SANITATION:** This company maintains a written sanitation plan. Updates are performed on an as needed basis. Company employees clean the plant and equipment IAW the cleaning plan as needed. The plan identifies daily and weekly areas to be cleaned. Food contact surfaces are cleaned and sanitized daily. Employees maintain their own harvest knives. The knives are sanitized at the start of the shift and sanitizer buckets are maintained throughout the processing areas to permit knives to be sanitized as needed. Sodium Hypochloride is used as a sanitizer (150 ppm). Zepamine is the detergent. Formaldehyde is used on floors outside the production area to control and prevent microorganisms from being tracked between rooms and production areas (sprayed only at night). A pre-operational hygiene checklist is completed daily. Chemicals are secured in a designated storage area. Only the certified chemical applicator has access to the storage room. Chemical concentrations are monitored by formulation and test strips. MSDS are current and available for review.

**PEST CONTROL AND WASTE DISPOSAL:** Integrated Pest Management Program: Pest control program is a combination of in-house and contracted surveys and applications. The contractor is Orkin Pest Control. In-house pesticide applications are completed and monitored by State-licensed applicators. Orkin is responsible for pesticide chemicals outside the production areas (malthion). Orkin visits monthly and verification is maintained. Monthly in-house surveys are completed and documented. No significant infestations have been recorded or observed during these surveys. Fly-strips, insecticutors, bait stations, catch-alls and chemical sprays are used at strategic locations throughout the premises. A bait site map is maintained and is current.

- Liquid waste is discharged from the building into a private septic system. The system is composed of four pond lagoons and is inspected and approved by the local health department and appears to meet the requirements for design and function. Solid waste is burned using controlled burns quarterly. Used compost is sterilized and sold to an external company-not reused in the plant. Facility has its own truck to haul waste to the dump and does not rely on local trash services.

#### **PROCESS:**

**Production:** The total time from commencing compost production to harvesting mushrooms is approximately 7-8 weeks.

**PHASE I:** The process begins with the preparation of the compost. The raw materials are blended, by front end loaders and other heavy machinery, in a large area outside the production facility. After blending, the mixture is maintained in bunkers where decomposition begins. Rows of compost (ricks) are mechanically turned, watered and nutrients are added on a regular schedule to maintain proper oxygen and moisture levels and ensure even development of the compost.

**PHASE II:** The compost is then placed inside a pasteurization room (tunnels) where temperatures are allowed to rise to excess of 140 degrees Fahrenheit. This temperature is held for approximately six to eight hours to achieve pasteurization of the compost. Objective of the pasteurization process is to destroy insects, bacteria, nematodes and pest fungi. In addition, pasteurization commences the process of removing ammonia from the compost, which is harmful to proper mushroom development. The temperature is gradually reduced over several days to prepare the beds for spawning.

Once the pasteurization process has been completed, the material is mechanically loaded into large wooden trays. The prepared beds are next mechanically inoculated with mushroom spawns. The trays are then moved to one of the spawning rooms, maintained at high humidity to prevent drying as the mycellium develop. After the spawn run has occurred (approximately 2 weeks), casing is mechanically added to the beds. From this point the mushrooms eventually develop and are harvested.

Whenever necessary, Benelate or Mertect (fungicides) and /or Turbocide (insecticide) are applied to the growing

**FOR OFFICIAL USE ONLY**

rooms. The rooms are tagged when these chemicals are applied and entry to the room is restricted for a specified period of time (CCP1), in accordance with chemical manufacturer's instructions, and varies as the chemicals dissipate or are absorbed into the compost.

The mushrooms develop above the casing and when harvested, care is exercised to ensure the edible portion of the mushrooms does not contact unclean surfaces. Employees wear disposable gloves during harvest and maintain their own knives. Harvested mushrooms are placed in plastic trays and held in a pre-cooler at approximately 40 degrees Fahrenheit.

From the cooler, mushrooms are either transferred to the slicing room or packaging room. Mushrooms are packaged in ventilated packages to prevent an anaerobic environment. Sliced and whole packaged mushrooms are passed through a metal detection unit (CCP2). Finished product is loaded into shipping cases and placed in a vacuum cooler to quickly bring down the interior temperature of the product. From there it is transferred to the refrigerated product cooler until shipped to the distribution center. Postcrop compost is held in the growing room at 180 degrees F for 18 hours to ensure death of any remaining microorganisms before being removed and sold.

**STORAGE:**

The finished product is stored in one cooler that is maintained between 34 and 45 degrees Fahrenheit. Raw composting material and spent compost are stored in designated areas, separate from finished product areas. Raw composting material is stored outside the production facility. Spores are stored in a designated storage area within the building.

**DISTRIBUTION:**

The product is delivered in one of 16 company owned refrigerated trucks that are operated by company drivers. Background checks are conducted on drivers by the facility. Product is shipped from this plant to distribution centers. Product is delivered to the military customer through the distribution company.

**SECURITY:**

Discussed with management.








**PRODUCT FLOW**

**ESTABLISHMENT:** VC#: 08-0078 - Rakhra Mushroom Farm, Corp. 08-0078

**AUDIT DATE:** 14 Jul 2009

**DESCRIPTION:** (please use the attachment section below for graphical representation)

**ATTACHMENTS**

TYPE	FILE NAME	SIZE (KB)	LAST REV
 Business Card	business card.pdf	124603	7/25/2009
 Flow Chart	RakhraFlow.pdf	105400	7/25/2009
 HACCP	Rakhra - HACCP.pdf	59726	7/25/2009
 Other	spawn origins.pdf	682224	7/25/2009
 Plant Diagram	Floor_Rakhra78.doc	832512	7/25/2009
 Plant Diagram	plant map.pdf	141939	7/25/2009
 Water Potability	Water Potability.pdf	387277	7/25/2009

LAST MODIFIED BY Barbara Lacey - 08/05/2009 02:22:44 PM

v.05.09 31

**FOR OFFICIAL USE ONLY**