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|  | NORTH CAROLINA DEPARTMENT OF LABOR | | No. 20-6 |
| | OSH DIVISION | | Date: 10/2009 |
| | OSHNC INDUSTRIAL DATA REPORT | | Pages: 3 |

Industry: Food and Kindred Products

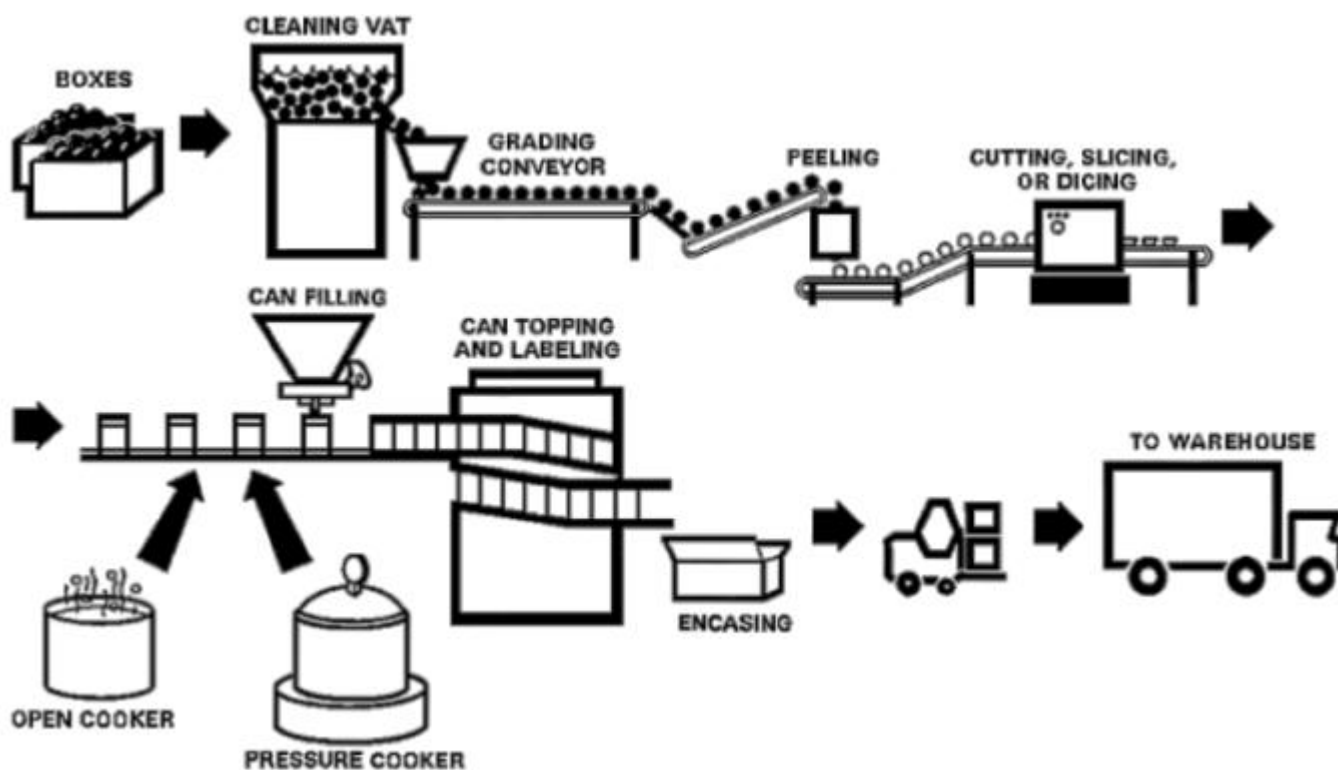
Sub-Group: Canned and Preserved Fruits and Vegetables


SIC: 2032 and 2033

NAICS: 311421, 311422 and 311423

PROCESS DESCRIPTION: Canned fruits and vegetables are prepared from raw products by canning as individual items or in a mixture. They are received from the grower in open boxes, crates or in bulk, and are cleaned by air, water, steam, brushing or a combination of these methods. Peeling is done by both machine and by hand. Foods are canned both peeled and unpeeled and are canned whole, sliced or diced. They may be seasoned with salt, sugar or vinegar. When vinegar is used the fruits and vegetables are normally pickled in open containers for a prescribed time. When salt is used they are normally cooked immediately and canned, or canned and then cooked. When sugar is added the products are usually canned immediately, uncooked. After canning they are labeled, encased and stored to await shipment. Except for some cutting and pulling, the operations are generally mechanical with little or no employee contact.

PROCESS FLOW:



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Hazards Analysis


| Major Hazards | | | Other Hazards | | |
|---------------------------------|-------------------------------------|---|---------------------|------------------------------|---|
| Location | Item | Hazard | Location | Item | Hazard |
| Receiving, storing and shipping | Boxes, cases Forklift trucks | Falling objects, strains and strains from lifting Collisions and carbon monoxide | Storage preparation | Encasing and palletizing | Back injuries, hernia, hand and foot injuries from manual loading pallets |
| Cleaning area | Cleaning agent, dust and dirt | Burns from steam or hot kettles and caustic or foreign objects in eyes | Labeling area | Glue | Fire, dermatitis and inhalation of vapors |
| Cooking | Open and pressure cookers | Steam burns, explosion and propane | Seasoning area | Acetic area | Inhalation of vapors |
| Throughout plant | Noise | Hearing loss | Throughout | Cleaning/Repairing equipment | Rotating moving parts, accidental start up |
| Canning room | All machines | Unguarded moving parts causing hand injuries and amputation | | | |

Key OSHNC Standards

| Reference | 29 CFR 1910 - General Industry Standards |
|------------|--|
| Subpart D | Walking and working surfaces |
| Subpart E | Exit Routes, Emergency Action Plans, and Fire Prevention Plans |
| Subpart I | Personal protective |
| Subpart O | Machinery and machine guarding |
| Subparts S | Electrical |
| 1910.95 | Occupational noise exposure |
| 1910.146 | Permit-required confined space entry |

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| 1910.147 | Control of hazardous energy (lockout/tagout) | | |
| 1910.176 | Handling materials - general | | |
| 1910.178 | Powered industrial trucks | | |
| 1910.1000 | Air contaminants | | |
| 1910.1026 | Hexavalent Chromium | | |
| 1910.1200 | Hazard Communication | | |
| Inspection Analysis | | | |
| <p>Inspection should begin in the receiving area where produce received in boxes is dumped into a hopper. Boxes must be checked for loose nails, boards and other damage. The hopper must be inaccessible or guarded. The forklift or front end loader must be checked for safety equipment, trained and authorized operators and safe operation procedures. The cleaning process must be evaluated for employee exposure to dust, dirt, caustic materials and hot substances. All conveyor systems must be evaluated for nip point guards, guards on v-belt and chain drives and tagging and lock-out procedures. Exposed moving parts of other machines must be guarded and locking and tagging procedures must be established. Means of egress must be provided for all employees from their work area. Machine tender stations must be located at the safest position possible with convenient egress. Personal protective equipment must be worn by employees exposed to eye and hand hazards and falling objects. Cases must be interlocked on pallets to prevent falling when stored. Employees in the warehouse, as well as in receiving, must wear head protection. Foot protection is required when moving cases by hand.</p> | | | |
| <p>Other Pertinent Comments: Slips, trips and falls comprise the most frequent types of accidents because of wet floors. Injuries to the hands, feet and back occur frequently from handling cases and containers of products and canning materials. There are hand injuries from moving machine parts.</p> | | | |