

“ABC Company”, Elyria

Intervention Key Words: Centrifuge, Automation

Industry: Other, Benzoyl Peroxide

Risk Factor(s): Awkward Posture- Back deviations, Wrist and Shoulder deviations, High Hand Force- Pinching/Gripping, Manual Handling- Lifting/Carrying, Pushing/Pulling, Repetitive motion

Situation:

The “ABC Company” specializes in the production of benzoyl peroxide (BPO), a drug used to treat mild cases of acne. A number of steps are needed to process BPO into its final form, many of which include manually washing, scooping and lifting large quantities of the white crystal substance. Production involves the transfer of BPO in 5 gallon pails or large scoops between filters, mixers and centrifuges. In addition, the product has to be transported between workstations manually, using only a pallet jack. Cumulative Trauma Disorder Risk Factors stemming from the production and packaging of benzoyl peroxide include repetitive/awkward lifting and postures, prolonged arm elevation and awkward reaching and excessive forces used to transfer the product.

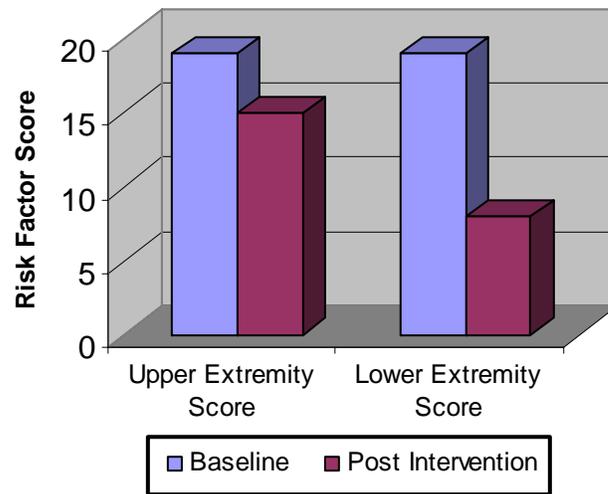
Solution:

In order to address their CTD issues, the “ABC Company” designed and implemented an automated system for rinsing and centrifuging processed Benzoyl Peroxide. A new centrifuge automatically washes, filters, and discharges products into secondary equipment for packaging. The project eliminates the use of manual equipment, comprising of a wash station, filters, two small centrifuges, and a blender in addition to the manual action of scooping product between devices. The total cost to implement the new equipment was \$95,000. The “ABC Company” received \$40,000 in assistance from SafetyGrant\$ to offset their costs.



New Centrifuge is designed to wash, filter and discharge the product into bags automatically

Results:



- Three tasks were eliminated with the implementation of the new system and the CTD Risk Factor scores of one remaining manual task decreased 40% following the intervention.
- Employee Turnover Rate (standardized per 200,000 hours worked) was at 54.0 the year prior to the intervention and decreased 86%, to 7.6, over the 2 years following.
- Lost Days Rate was at 0 during the baseline period and remained at that level for the following 2 years.
- Increases in CTD Rate and Restricted Days rate were observed but may not be directly related to the intervention.