

Figure 8b. Collisions vs. machine boom arm speed and operator at risk behavior {1,1} in a 152.4 cm seam.

REFERENCES

- Klishis, M. J., Althous, R. C., Layne, L. A., Lies, G. M., A Manual for Improving Safety in Roof Bolting, Mining Extension Service, West Virginia University. August 1993, pp. 143.
- Klishis, M. J., et al, Coal Mine Injury Analysis: A Model for Reduction Through Training, Mining Extension Service, West Virginia University. August 1993, pp. 220.
- Turin, F. C., Human Factors Analysis of Roof Bolting Hazards in Underground Coal Mines, Bureau of Mines RI 9568, September 1995, pp. 22.
- 4. Humantech, Inc. staff, Ergonomic Design Guidlines for Engineers Manual, Humantech, Inc., Ann Arbor, MI, 1996, pp. 22.
- MSHA; A roof-bolter-machine committee convened by MSHA, (with members from the WV Board of Coal Mine Health and Safety, NIOSH, and roof bolter manufactures), studied 613 accidents that occurred during drilling and roof-bolt installation, August 1994 (not published).
- Etherton, John Dr., Helander, Martin G., and Karwan, Mark H., "A Model of Human Reaction Time To Dangerous Robot Arm Movements , NIOSH, Proceedings of the Human Factors Society-31st Annual Meeting," 1987.
- 7. Kobrick, J. L. "Effects of Physical Location of Visual Stimuli on Intentional Response Time, Journal of Engineering Psychology," vol. 4, pp. 1-8, 1965.
- 8. Welford, A. T. "Reaction Time: Basic Concepts," Academic Press, NY, NY, 1980, pp. 418.

- Grooso, Marc R., Gonda, Robinson S., and Badler, Norman I., An Anthropometric Database For Computer Graphics Human Figures, Proceedings of the 13th Annual Northeast Bio-engineering Conference. March 1987, University of Pennsylvania, pp. 628-631.
- Grosso, Marc R., et al., Anthropometry For Computer Graphics Human Figures, technical report, University of Pennsylvania, 1988.11. Natick, U.S Army staff, Anthropometric Survey of US Army Personnel; Methods and Summary Statistics, Natick Technical report TR-89-044, 1988.
- 11. NASA staff, Man-Systems Integration Standards, NASA-STD-3000, vol 1, 1987.
- Pandya, Abhilash, et al., The Validation of a Human Force Model to Predict Dynamic Forces Resulting from Muti-Joint Motions, NASA Technical Paper 3206, NASA, 1992.
- Pandya, Abhilash, et al., Correction and Prediction of Dynamic Human Joint Strength from Lean Body Mass, NASA Technical Paper 3207, NASA, 1992.