

Now that you have concluded your research and understand better how your company's cabinet X-ray system can take a BMD image, you now need to present your information to the company board. You may choose to create a tri-fold pamphlet or a presentation poster in which you present your research findings. Your pamphlet or poster also might be used to market your findings within the medical community, so be sure to create a professional, creative, colorful presentation.

On your pamphlet or poster, you must contain the following;

- An explanation of how the BMD image can be created using the cabinet X-ray system.
- Applications of BMD in medicine (why would creating BMD images this small be useful?)
- How can the machine distinguish between various materials?
- What is an attenuation coefficient, and on what two factors does the attenuation coefficient depend?

Alternately, your recent understanding has led you to believe that your company could also market the cabinet X-ray system for use in airport security. Write a 1-2 page paper explaining why it could be useful to use a method similar to the method used to create a BMD image at security checkpoints to identify specific materials being carried onto airplanes. In your paper, you need to explain/consider the following:

- How would this image be created?
- In addition to the x-ray machines already in use, are there additional materials needed to implement this procedure?
- How would the machine be able to distinguish between various materials?
- What is an attenuation coefficient?
- On what two factors does the attenuation coefficient depend?
- Why would being able to identify specific materials be useful for airport security?
- What types of materials should the machine be designed to detect?

This 1-2 page paper should be double-spaced using Times New Roman size 12 font. Be sure to include a list of all references used to help you write this paper, including the web address if the information was found online.. If you need to email me the assignment, you need to have sent me the email before your class period begins. If you are not emailing me the assignment, you should have a hard copy (no disks!) of the paper ready to hand in at the beginning of your class period on _____.

Be sure to include a list of all resources used to help you create your final presentation to the company. You should have at least three sources listed. This assignment is due on _____ at the beginning of your class period.