

We saw this slide way back in Module 2. I wanted you to see it again to remind you that disposal costs are a part of Total Life Cycle costs. Disposal costs are those costs that occur after the program begins system phase-out or retirement. It can also include things like demilitarization, detoxification, and long-term waste storage.



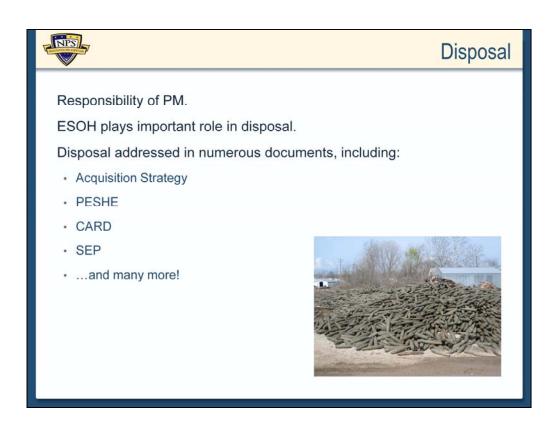
## **Disposal Activities**

## Disposal can include:

- · Demilitarization.
- Disassembly
- · Materials processing
- Decontamination/detoxification
- · Collection/storage/disposal of hazardous materials and/or waste
- · Safety precautions
- Transportation of the system to and from the disposal site



There are more activities associated with systems disposal than you might think! There are several disposal activities listed on this slide. Don't forget that every one of these activities has to be planned for, budgeted for, and then executed. And in the case of Naval vessels, this could go on for decades. One of the ships in the picture on this slide is the USS Iowa. It was commissioned in 1942 and deactivated for the final time 48 years later in 1990. And now, 20 years after it was deactivated, it's part of a mothball fleet in northern California. I don't think the Program Manager could have predicted that the ship would be around for that long. And I'm pretty sure that the disposal costs the ship is incurring more than 65 years after it was built were not budgeted for in the acquisition process!



Just like everything else in an acquisition program, disposal is the responsibility of the Program Manager! But the Program Manager isn't alone. There are a lot of other people that are involved in planning and executing disposal activities. Even HSI practitioners! And especially the domains of Environment, Safety, and Occupational Health.

You know that Environment, Safety, and Occupational Health (or ESOH) are shared with Systems Engineering. The 2008 version of DoD Instruction 5000.02 reassigned responsibility for ESOH from HSI to Systems Engineering. But HSI still retains a lot of the ESOH expertise. So, as I've said before, this is just one more opportunity for HSI practitioners and Systems Engineers to collaborate with one another.

Disposal planning starts very early in the acquisition process. In fact, system disposal is supposed to be addressed in the Acquisition Strategy that's approved at Milestone B. According to the DAG, the Acquisition Strategy should summarize the Programmatic ESOH Evaluation (or PESHE). And the PESHE should include "identification of plans for minimization and/or a safe disposal of hazardous materials, wastes, and pollutants associated with the system, and a compliance schedule for National Environmental Policy Act (NEPA)."