Accurate, detailed records on the type of sealant used and the nature of the material and substrate encapsulated are critical. This information is needed to avoid unintentional release of fibers during remodeling or demolition.

3.3.1.4 Special Operations and Maintenance Procedures and Periodic Reassessment

An active program of building cleanup followed by proper maintenance and periodic reassessment of the need for other control measures seems to be appropriate where the asbestos-containing material is in good condition and has a low potential for disturbance or erosion. Other control measures will depend on the results of future reassessments. (In the past, this option has been called "deferred action.") It minimizes current costs while providing reasonable assurance of protection to building occupants.

Components of an initial cleanup program are the same as those of the interim control program described in the introduction to Section 3.3.1. Fibers are removed from carpets, floors, and all other horizontal surfaces. Building occupants and maintenance personnel are cautioned about damage to asbestos-containing materials.

All custodial and maintenance personnel should be instructed in special operations procedures. They should be cautioned about removing suspended ceiling panels, installing lighting or plumbing fixtures, repairing air handling systems, or, in general, engaging in any activity that might damage asbestos-containing material or resuspend fibers. Building occupants should be warned not to disturb the material by such acts as hanging plants from asbestos-covered ceilings and damaging walls with furniture.

Periodic reassessments should focus on the condition of the asbestos-containing materials, changes in building use, and changes in occupants' activity patterns. If reassessment suggests that fiber release has occurred or is likely, then other corrective actions should be formally evaluated.

3.3.2 Control Measures for Pipe and Boiler Insulation

Controlling asbestos-containing materials used to insulate pipes and boilers is different but not necessarily more difficult than controlling asbestos-sprayed or -troweled surfaces. Asbestos-containing pipe insulation takes many forms, including chalky mixtures of magnesia and asbestos, preformed fibrous asbestos wrapping, asbestos fiber felt, corrugated paper, and insulating cement. In most cases, the insulating material is covered with a protective jacket (lagging) made of cloth, tape, paper, metal, or cement. (Figure 13 is a photograph of deteriorated and damaged pipe insulation.) Boiler insulation may consist of thermal bricks (refractory) or asbestos insulating blankets, but is usually covered with a finishing cement. Occasionally, asbestos millboard is used as outside lagging on removable insulating covers for stiffness. Lagging on pipes and boilers prevents spontaneous fiber release and helps protect against disturbance. Damage from physical impact or water exfiltration is relatively easy to observe and repair. On the other hand, not all parts of steam or hot water distribution networks are readily accessible, and the high temperatures (if the steam cannot be shut off) can make abatement an arduous task.

Where damage to pipe covering or boiler lagging is limited, the most straightforward approach to abatement is repair. Duct tape can be used to seal open joints, and plastering with nonasbestos material can restore large damaged areas or areas around valves and flanges to their original condition. Where large portions of material must be removed, however, one should use the same protective measures taken in the removal of materials sprayed or

GLEASON-001102