

Midas touch

A recent discussion topic on the Internet Dental Forum (www.internet-dentalforum.org) involved a news story about a laboratory that had experienced employee theft of precious metal scrap in excess of \$170,000 over a several year period. OUCH!

While thefts of this magnitude don't occur too often, precious metal theft is a fairly common problem for dental laboratories. Generally, large quantities of precious metals don't disappear in a single event. Employees or visitors usually don't crack the safe and run with the contents. Labs tend to be vulnerable to the theft of small amounts over medium to long periods of time. An ingot here, a button there, a cut off sprue every day, can soon add up to real money.

Laboratories are vulnerable in three areas: Administration (buying, receiving and storing precious metals); Operations (casting, finishing, polishing in production); and Refining (scrapping buttons, storage, selecting a refiner).



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ADMINISTRATION

When buying, receiving, and storing precious metals, here are three actions you can take to protect your investment.

1. Involve multiple people in the purchasing/receiving process. Specifically, one individual should order the gold and a different person should receive it, count it, approve the bill for payment, and store it. Having three people split these responsibilities is even better. Multiple person involvement means staff has to collude in order to steal alloy. While not totally impossible, theft becomes much less likely.

2. Make the person responsible for storing the material also responsible for issuing precious metal to individuals doing the casting. Keeping a log is very helpful for tracking the amount of precious metals issued, the amount cast, and the amount of work loss (the amount of precious metal lost during production processes). Reconcile the usage log with purchases on a monthly basis. Making employees sign metal out and take responsibility for it sends a good message regarding how seriously management takes the security of precious metals. I also suggest buying alloys in smaller quantities more frequently to eliminate carrying the large inventory that less frequent purchases create.

3. Set your billing system up to bill precious metals to clients as a separate line item on the invoice. Do this even if you include alloy in your unit price because it will allow you to track the quantity going out to clients. Separate line item billing results on your profit-and-loss statement for alloy sales to the clients. You can compare these figures to the expense line for alloys. Since you should be marking up alloys as a profit center, the sales line should be higher than the expense line depending on your markup. This ratio should remain fairly constant from month to month and provide a red flag for possible losses. **4.** Store new alloy material

in a secure place, preferably in a part of the lab that is open to view, and limit the number of staff who have access. I've seen too many cases where five or six thousand dollars worth of gold is stored in an unlocked drawer.

OPERATIONS

Production processes account for the greatest possibility for precious metal loss. Here are two proactive steps you can take to recover lost metal during casting, finishing, and grinding phases of fabrication.

1. Casting, finishing, and polishing procedures all generate "work loss". Establish standard work loss parameters for each operation. Pay particular attention to how closely sprues are cut off. Clean the casting well or machine regularly and put the contents in a scrap collection container. A manager or supervisor should decide when a button or crown is scrap and when it is reusable.

2. Invest in good vacuum/suction equipment for each workstation. Train technicians to grind into the vacuum and be sure the systems are emptied/cleaned regularly. Your lab will be cleaner and your scrap return will be larger! Carpet around these areas will also trap fine dust and particles that escape the dust collectors

REFINING

Storing scrap material and choosing a refiner also require careful consideration.

1. Refining is a matter of trust. You give the refiner a bag of "dirt" and they give you money. Avoid refiners who come to your door and offer to buy your scrap for immediate cash without an assay. Choose a reputable refiner who purchases all

the major precious metal elements (gold, platinum, palladium, and silver) and provides a complete assay and purchase report. For the best return, sort your scrap by type (grindings, sweeps, crucibles, solid metallics etc). Record and log the gross weight being sent or picked up.

2. Store refining collection containers in a secure location. This is not waste or trash. If left out unsecured, it is very easy for someone walking by to take a button or piece of casting flash. Collected scrap waiting to be sent to the refiner is most vulnerable to loss because no one knows what is in it or exactly how much is there.

I once was involved in a case where an employee substituted base metal buttons for gold alloy buttons in the scrap bucket. The lab found out when the analysis of their next scrap return showed 28% nickel. Send your scrap to your refiner frequently (two to three times per year for medium size businesses) because it reduces your risk of loss and allows you to "market average" the precious metal prices.

3. Save and review the records and reports provided by the refiner. Comparison of the weight of the scrap sent to the ounces of gold, platinum, and palladium itemized by the refiner's report allows you to spot problems. If you send approximately the same gross weight every time, and have not changed alloys or significantly changed procedures, the refiner should find a similar percentage of each element in the return. Wide variations need to be questioned and investigated both with the refiner and internally.

The vast majority of employees are honest, but good procedures and safeguards remove temptation and help protect your business from the bad apples that, unfortunately, are out there. **lab**

Safeguard your precious metal scrap from internal theft by taking these precautions. by Chuck Yenker