

The sample to be removed should be appropriately sealed, e.g., placed in a mylar bag, resealed, or seal with wax, and the bag again identified as above with tags, labels, etc. Each sample should normally be placed in its own mylar bag, although under some circumstances, similar samples may be grouped together in the same overall bag. The bags should then be placed in a portable cold storage chest which can also be sealed, tagged, labeled, and secured for transport in a manner designed to preserve the chain of custody. Procedures, containers and seals employed by the IAEA to transport radioactive materials might provide a foundation on which to build. A record of the bags and the cold box container, the contents, numbering system, etc., should also be kept in the inspector's record book. It is important to be able to have a custody record from the time the sample is taken until it has been analyzed at the off-site analytical laboratory. The custody record should be continued in the lab.

Seals should be broken only in the presence of an authorized Technical Secretariat representative. If safety or other considerations make it necessary, at any time, to break the seal on a sample containing plastic bag, or cold box, a written record should be kept as to who broke the seal, why it was broken, and how long a period elapsed before resealing, and who resealed the material. Resealing should occur as soon as possible and new seals or tags numbers entered into the record book. The old seals should be retained and should accompany the material to the laboratory for analysis.

Sampling equipment: This should include, but is not limited to the following:

Collectors - clean bottles, vials, gas tubes, tubes, vacuum bottles, etc. The size and number of each container should be determined by the nature of the facility. All sample containers should be numbered, clean, durable, sealable, and be tared, where possible.