

Procedures for the Retrieval of Colour Film stored in the Nova Scotia Film Preservation Cold Vault

BACKGROUND

Photographic film, including photograph negatives, is subject to physical and chemical deterioration of the base/support (nitrate, acetate, or polyester), the emulsion/binder and the pigment particles. The process of deterioration is accelerated if film is stored in a poor environment and, conversely, is appreciably slowed by storage in a stable low temperature and low humidity environment. The deterioration of nitrate and acetate base film is strongly dependent on relative humidity. Recent ANSI specifications recommend 20-30% RH for long term storage of acetate and polyester base film. Current literature suggests that film should be stored at as cool a temperature as is feasible while maintaining a low relative humidity.

The Nova Scotia Film Preservation Cold Vault is located at the Nova Scotia Archives (NSA) and is a standard Bally Data Shield Box made of prefabricated panels of 18-gauge steel with four inches of Styrofoam insulation. Four compressors operate in cycles and low humidity is maintained by a Munters™ desiccant dehumidifier vented to the outside. Approximate external dimensions of the storage chamber are 36' x 13' with an 9' x 5' alcove and a 9' x 5' vestibule. The vault is equipped with mobile shelving and has a capacity of more than 18,000 cans of film. The operating temperature and relative humidity are 0.5 C and 30% RH.

WHAT IS STORED IN THE VAULT?

- The Nova Scotia Film Preservation Cold Vault is owned and operated by the NSA.
- The CNSA, an original Cold Vault Consortium member, has been allotted space for 3,000 cans or equivalent free of charge due to its financial contributions and assistance in the acquisition of the original vault.
- Some space will be set aside for rental, the fees from which will help offset the costs of operation and maintenance of the vault.
- At the moment, the NSA stores all colour moving picture film (Fc) that has passed a vinegar syndrome test. This amount numbers approximately 3,000 cans.

WHO DO I CONTACT?

- Film may be accessed by arrangement with [Barry Smith](#) or [Rosemary Barbour](#)
- Two business-days' notice is required to retrieve stored film in order to allow for

at least one day of acclimation. Film stored at low temperatures must be allowed to warm up gradually to the dew point of the outer vault air before it can be removed from its container to prevent the formation of condensation on the film

RETRIEVAL OF FILM FROM COLD VAULT

- Remove film can(s) from the cold vault and place it on counter in the bindery. Do not remove the lid or, if the can is in a plastic bag, do not remove the can from the plastic bag.
- Allow film to warm up gradually until there is no noticeable difference in the temperature of the can and the ambient room temperature.

RETURNING FILM TO COLD VAULT

- Film may be returned to the vault without any prior conditioning.