

**The Creation of Pictorial Order: Developing a Records
Management System for Manitoba Hydro Corporate Photographs**

by

Jenara Franklin

A Thesis submitted to the Faculty of Graduate Studies of

The University of Manitoba

in partial fulfilment of the requirements of the degree of

Master of Arts

Department of History (Archival Studies)

Joint Master's Program

University of Manitoba/University of Winnipeg

Winnipeg, Manitoba, Canada

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Abstract

Although photographs are a vital record of business they have not been given the attention they should receive in the records management field, which has focused heavily on textual records. This thesis examines the photographic records of Manitoba Hydro, Manitoba's largest Crown Corporation. Manitoba Hydro's vast volumes of photographs capture the visual history of all aspects of the corporation's multifaceted, province-wide work, and thus of many aspects of life in Manitoba. These valuable photographs need to be managed appropriately if they are to be used effectively by the corporation and citizens of Manitoba. The thesis outlines past and current uses of photographs by Manitoba Hydro, its current methods of managing photographs, and suggests how its photographs might be better integrated into company's records management system. The thesis aims to help fill a gap in the records management literature in regard to records management for photographs.

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Introduction

Manitoba Hydro and its predecessor hydro-electric companies have long been among the most important institutions in Manitoba. Today, Manitoba Hydro is the largest Crown Corporation in the province and is a key driver of the province's economy. In 2007 its revenue was listed at \$2.5 billion. Net income for the same year was \$346 million. Hydro employs around 6,000 people, who work throughout the province. Hydro affects every geographical area and segment of the Manitoba economy. Its new downtown Winnipeg office building is intended to be a key statement of its centrality in Manitoba's economy and society and its progressiveness. The new building will be the fourth tallest one in the city and is to be one of the most energy efficient buildings of its size in North America.

Manitoba Hydro's records are extraordinarily valuable information resources about the province both past and present. The Records Management service at Hydro has custody of over 40,000 boxes containing a wide variety records. Approximately 3/4 of them date from 1961, or after the incorporation of Manitoba Hydro. Hydro's photographs form a very large and important component of the company's records. Indeed, outside the Manitoba government's photographs (taken as a whole), Manitoba Hydro's photographs may well be the single most important body of historical and contemporary photographs about Manitoba. These photographs are among the most extensive parts of Hydro's archival records. A current estimate of the number of photographs in the control of Manitoba Hydro is about two million images in various physical and digital formats. Most of these images, however, are not in Records

Management's custody. They are stored throughout the corporation. Records Management does have a large quantity of the company's historical photographs. Photographs continue to be a major type of document created by Hydro. And since digital technologies have made taking photographs so much easier their numbers have increased dramatically. That too simply shows how reliant Manitoba Hydro remains on photographs.

This large and rapidly increasing volume of photographs poses a major records management challenge. Archival and especially records management literature has not responded well to it. While archival literature on managing photographs has developed considerably in recent decades, records management for photographs has not. The records management profession is still overwhelmingly concerned about textual records, whether paper or electronic. As a measure of the increasing importance of Manitoba Hydro's records, Hydro has recently launched a new and revitalized records management system through a project entitled 'Worksmart'. Although the project promotes better overall management of information, it does not as yet specifically address photographs as such. Still, it does provide a broad basis for better management of them.

Since proper management of this vast visual information resource is important to Manitoba Hydro and the people of Manitoba, this thesis will suggest how Manitoba Hydro might enhance the new records management system in order to incorporate photographs into it in a more deliberate manner. This thesis is intended to be a contribution to historical research on Manitoba, archival studies, and, especially, the limited literature on records management for photographs. It is hoped that the thesis will

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help make these vitally important image records useful for the various management and historical purposes they have in Manitoba Hydro and Manitoba society.

This thesis will begin with an examination of the historical and administrative value of the corporate photographs of Manitoba Hydro. Photographs are a type of record. As records of the corporation they have a variety of values to the company and society. These values may be operational, legal, administrative, historical, or a combination of one or more depending on the needs and interests of the viewer of the photograph. All photographs are evidence of an event, such as a technical operation by Hydro, that both the company and society may require for historical research, administrative accountability, and effective day-to-day operation of the company. Thus, photographs are a vital corporate and societal asset and should be handled as such.

While companies like Manitoba Hydro have been excellent at clicking the shutter of the camera and amassing large collections of photographs, they have not always managed them well. For example, they have not necessarily surrounded them with the contextual information about why they were created, when, and by whom that enables them to stand up as a corporate record over time. Also, companies often manage photographs in a highly decentralized manner. At Manitoba Hydro, the person or unit taking the photographs is responsible for managing them. Therefore, every image taker in every department has formulated a distinct scheme for organizing their unit's photographs. These systems range from binders arranged by title and year, to databases, to electronic filing systems using the digital camera's numbering system. Absence of sufficient contextual information and decentralized management of photographs undermine the value of photographic evidence and make long-term preservation of

intelligible photographs harder to achieve. Given the difficulties presented to records managers and archivists by preservation of digital photographs in particular, corporations must invest more in managing their photographic records or the visual history of companies like Hydro and the communities they serve will be lost.

There is also legislation governing Manitoba Hydro that affects the management and accessibility of its records, including photographs. Manitoba Hydro is a crown corporation of the province of Manitoba and falls under the jurisdiction of the Manitoba Archives and Recordkeeping Act, which promotes the management of the life cycle of records. Manitoba Hydro is also governed by the Manitoba Freedom of Information and Protection of Privacy Act, which strives to balance the right of access to information with restrictions on access to confidential information. In effect these laws place an obligation on Manitoba Hydro to do a better job of records management for its photographs. These acts cannot be complied with without sound records management for all records, including photographs, as photographs contain both accessible and confidential information.

This thesis offers a case study analysis of Manitoba Hydro photographs. It will analyze the role of photographs in the company's work, the contribution of photographs to an understanding of the company's administration and history, the current physical condition and organization of the company's photographic images, review archival and records management literature and theory pertinent to photographs, and make recommendations on how to improve the company's records management system for these photographs.

Chapter one, looks at the past and current archival and records management theoretical writing on photographs. It will be evident that there is limited guidance in this literature on records management for photographs. This thesis aims to help fill this gap. Chapter two supports this goal by providing a general overview of the history of Manitoba Hydro, the early role of photography in the work of the company's predecessors, and the contribution of photographs to a better understanding of them and Manitoba history. Manitoba Hydro is the product of amalgamations of different companies. The company has a rich corporate and pictorial history dating not only from its establishment in 1961, but across the history of its many predecessor Manitoba electric power supply companies. This chapter will discuss why the company was founded and outline its administrative history and current functions. Photographs that illustrate company history will be highlighted as a sample from its rich collection. Photographs of generating stations, transmission lines, substations and terminal stations, construction equipment, people at work, lighting, landscape/wilderness, annual corporate events such as picnics and sports events, and ceremonial openings and signings will be discussed. This chapter will summarize how these photographs illustrate the history of the corporation and the history of Manitoba. These photographs are not only necessary to the corporation but also to historians and other scholars. They can enlighten scholars and anyone interested in Manitoba's history on social and economic activities from modes of dress and town centennials to environmental concerns about changing landscapes, to name but a few topics. Thus, Manitoba Hydro's corporate collection of images contains rich information about a variety of aspects of Manitoba history.

Chapter three demonstrates how Manitoba Hydro uses photographs today in all units of the corporation. Photographs are used to aid various corporate functions. The Environmental & Land Use Planning Department uses them to determine liabilities. The Public Affairs Department needs photographs for the annual report that display an event that the company is proud of or to defend public statements made by Manitoba Hydro. Technical photographs may be needed to maintain or modify existing facilities. This chapter will discuss where, why and how photographs can be used by the corporation at the present time. Specific examples will be given for the following: exhibitions; publications; newsletters; internal and public presentations; technical functions; and litigation.

Chapter four provides an overview of the existing physical and organizational state of Manitoba Hydro's photograph collection. It will discuss the general dimensions of the corporation's photograph collection, where they are created in the company, and how they are organized. The photographs are located in various buildings under different corporate divisions. The areas that will be looked at in this thesis are Public Affairs, Manitoba Electrical Museum Incorporated, Records Management, and Civil Engineering. These units have their own systems of managing photographic records. Information for each area will be provided on the types of these systems, approximate number of photographs in the collection, physical storage and environment where the images are maintained, the quality of the description of or the contextual information about the images, and the accessibility of the images. In 2002 digital photographs began to replace conventional photography at Manitoba Hydro. This has caused changes in the organization of the Manitoba Hydro photograph collection that will also be outlined.

This chapter will provide an overview of the way in which photographs are physically stored and organized in the corporation at present.

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Chapter five suggests how an improved records management system for Manitoba Hydro photographs might be created. It also includes consideration of the proper physical environment for storage of the photographs and conservation measures that might be taken to maintain them more effectively for future use. Various means of enhancing intellectual control of the photographs will be discussed: implementation of an organized filing system; policies and forms for more careful management of the photographs; and better means of description of contextual information for access to and interpretation of the photographs. Chapter five will discuss the creation of a comprehensive records management system that will enable images to be linked to their context of creation – or information about who took them why, when, and where.

It should be noted that photographs are a type of evidence and must retain links to their context and provenance so that they remain as useful as possible to the corporation and others.

Chapter One

Photographs in Archival and Records Management Literature: An Overview

Photographs have not been discussed in great depth in the records management literature and, until recently, archival literature as well. Canadian archivist Hugh Taylor noted in 1979 that “photographs were long ignored as records in the archival sense”.¹ Both the records management and archival fields have been more concerned with textual records and slow both to recognize the importance of photographs as a type of record with evidential value equivalent to that of textual records and to establish well considered means of managing photographs.

The first widely accepted work on archival administration was the Dutch *Manual for the Arrangement and Description of Archives* published in 1898 by Muller, Feith and Fruin.² It does not, however, include information on photographs. In fact, the authors state that objects other than “written documents, drawings and printed matter ... cannot form part of the archival collection.”³ The most highly influential archival manual in English in the first half of the twentieth century, British archivist Hilary Jenkinson's 1922

¹Hugh Taylor, “Documentary Art and the Role of the Archivist,” *American Archivist* 42 (October, 1979), 419.

²Samuel Muller, Johan Feith and Robert Fruin, *Manual for the Arrangement and Description of Archives*. Translation of the second edition by Arthur H. Leavitt. (New York, H.W. Wilson Co., 1968).

³*Ibid.*, 15.

A Manual for Archives Administration, only briefly mentions photographs.⁴ Jenkinson did not consider photographs to be as important as textual records. He states that “modern photographic process reproductions are common among archival holdings ... but these are general cases of ‘annexing’.” By ‘annexed,’ he means, “something of the size to be fastened to or conveniently associated with the document to which it belongs.”

⁵ For Jenkinson photographs are valuable mainly when linked to the textual documents they accompany. He does not provide any discussion of the archival treatment of photographs beyond their physical preservation.

American archivist T.R. Schellenberg wrote the other most influential archival books in English in the mid-twentieth century. In his 1965 *The Management of Archives*, which does contain a component on the “Arrangement and Description of Pictorial Records,” he pointed to the limited attention they had as yet received by saying that “the methods for arranging and describing pictorial records have not been fully defined, much less standardized.”⁶ Schellenberg did not do much to correct this problem. He downplayed the evidential value of photographs as records of the actions of those who took them. He said they are “mainly important from the point of view of their subject matter, not from the point of view of their provenance and functional originals.”⁷ He justifies this stance with the following:

⁴Hilary Jenkinson, *A Manual of Archive Administration* (London, P. Lund, Humphries, revised edition, 1937).

⁵*Ibid.*, 6.

⁶T.R. Schellenberg, *The Management of Archives* (New York: Columbia University Press, 1965), 322.

⁷*Ibid.*, 325.

Information on the provenance of pictorial records ... is relatively unimportant. Such information is useful mainly in helping interpret pictures – to identify the time and place at which they were produced and the subjects to which they relate. Information on the functional origins of pictorial records is also relatively unimportant. While they may relate to activity, such records are ordinarily not produced for purposes of action and are not truly organic in character. They are usually produced to record information or to stimulate emotional response.⁸

Thus, photographs were not considered to be important evidence of an action. They were a second-class source of information of that kind. They were useful mainly as sources of largely mute illustration of people, places, and objects.

An early study of archival appraisal criteria published by the Society of American Archivists in 1977 by Maynard Brichford also downplayed the value of visual records when compared with documents in textual form. He agreed that general standards of appraisal should be utilized for non-textual records, yet added that special considerations such as “quantity”, “quality” and “significance of compositional arrangement” must be applied to photographs.⁹ Brichford’s treatment of photographs, along with Schellenberg’s, is apparently based upon the belief that they are generated only for the purposes peripheral to the primary functions of organizations, or, as Brichford says, “...for a gift or a publication Photographs, like artifacts, have unique values for exhibition.”¹⁰

⁸Ibid.

⁹Maynard J. Brichford, *Archives and Manuscripts: Appraisal and Accessioning* (Chicago: Society of American Archivists, 1977), 3-4.

¹⁰Ibid.

By the 1970s a shift in archival thinking about managing photographs can also be detected with the 'rediscovery' of the idea of provenance. As archivists sought to cope with the ever increasing volume and variety of records and the rapidly expanding and diversifying research clientele, they found that they had to rely far more on information about the provenance or context of the creation of records than before. The earlier stress in Canada, especially, on knowledge of the information contents of the records was much less able to provide the intellectual foundation for archival work than it once had. Moreover, it was very clear by the 1970s that visual records were among the most voluminous and important in society and, increasingly, among archival holdings. They could no longer be ignored and they could not be managed simply by trying to understand and catalogue their infinite variety of subject contents. Archivists in Canada who specialized in photographic records in the 1970s and 1980s, such as Lilly Koltun, Joan Schwartz, Andrew Birrell, and Jim Burant, among others, led the way in making this intellectual shift toward a more contextual approach.¹¹ The contextual approach is

concerned in the first instance with acquiring knowledge of the context in which information is recorded rather than knowledge of the information contents of the records. It begins with the study of the creators of the records, their contemporary activities, and their histories – administrative or personal, as the case may be. The contextual analysis moves to acquire information about records: the characteristics of the media and of types of records within each

¹¹Following is an example of some of these authors' publications: Andrew Birrell, "Private Realms of Light: Canadian Amateur Photography, 1839-1940 - 1. From Acquisition to Exhibition," *Archivaria* 17 (Winter 1983-84): 106-114; Andrew Birrell, Peter Robertson, Lilly Koltun, Andrew C. Rodger, Joan M. Schwartz, "Private Realms of Light: Canadian Amateur Photography, 1839-1940 - 2. On View: The Evolution of Amateur Photography," *Archivaria* 17 (Winter 1983-84): 115-135; Joan Schwartz, "The Photographic Record of Pre-Confederation British Columbia," *Archivaria* 5 (Winter 1977-78): 17-44; Lilly Koltun et. al, "The Photograph: An Annotated Bibliography for Archivists," *Archivaria* 5 (Winter 1977-78): 124-140.

medium, the immediate circumstances of their creation, their use prior to entering the archives, organization in record-keeping systems and relationships with other records and systems. The analysis turns then to the archival theory, functions, and institutional structures required to appraise, arrange, describe, make available for use, and preserve these records.¹²

No longer can photographs be seen as secondary to the “domain of word-based records.”¹³ Archivists have developed methodologies and contemplated theories throughout time that are based on textual records. As archival educator Terry Cook states, “almost all the concepts, practices, procedures, and even accepted terminology of the profession reflect our legacy of paper records.”¹⁴ Greater trust has been placed in written evidence in the archival realm. This needs to change because photographs are used more and more as evidence of past actions by corporations. Given that photographs now have great importance as records at Manitoba Hydro, for example, they need to be managed with the same care and respect as textual records.

Photographs need to be viewed as part of the interrelated body of records documenting the actions of their creators, not just discrete images of the subjects photographed. Archivist and historical geographer Joan Schwartz has spearheaded this new approach in Canada especially. She says that photographs should not be viewed as

¹²Tom Nesmith, “Hugh Taylor’s Contextual Idea for Archives and the Foundation of Graduate Education in Archival Studies.” In Barbara Craig ed., *The Archival Imagination: Essays in Honour of Hugh A. Taylor* (Ottawa: The Association of Canadian Archivists, 1991), 16. For a more general treatment of the ‘rediscovery’ of provenance, see Nesmith, ed., *Canadian Archival Studies and the Rediscovery of Provenance* (Metuchen N.J. and London: Scarecrow Press, 1993).

¹³Lorraine O’Donnell, “Towards Total Archives: The Form and Meaning of Photographic Records,” *Archivaria* 38 (Fall 1994), 106.

¹⁴Terry Cook, “Electronic Records, Paper Minds: The Revolution in Information Management and Archives in the Post-Custodial and Post-Modernist Era,” *Archives and Manuscripts* 22, no. 2 (November 1994), 302.

discrete and de-contextualized items, nor valued mainly for their aesthetic qualities.

Schwartz states that archivists and records managers should

rethink the nature, production, and purpose of photographs as documents in order to achieve a contextual understanding of their use by governments, businesses, and individuals to convey government policy, communicate corporate ideology, construct national identity, shape collective memory, establish symbolic space, and define concepts of self and the cultural Other.¹⁵

Australian archivist Chris Hurley elaborates on this idea by saying that an understanding of records “depends upon contextual knowledge which is also historical and thus must exist outside the record.”¹⁶ Thus, in order to understand as much as possible of the message or evidence a record conveys, we must try to understand as much of the context of its creation or of its history as we can. It is mandatory that both internal and external characteristics be gleaned from it. As archival educator Tom Nesmith points out:

a record is not simply a single object with boundaries set by its physical extent. It is a meaningful communication, which means it is a physical object plus an understanding or representation of the object ... Some of what makes a record intelligible is inscribed in it, but most of what makes a record intelligible is not.¹⁷

Schwartz states this aptly in regard to photographs by arguing that archivists must go “beyond photographic realism and informational value to think more broadly about authorship and function, archivists can engage the photograph as a document, focussing

¹⁵Joan Schwartz, “‘We make our tools and our tools make us’: Lessons from Photographs for the Practice, Politics, and Poetics of Diplomats,” *Archivaria* 40 (Fall, 1995), 42.

¹⁶Chris Hurley, “Ambient functions: Abandoned Children to Zoos,” *Archivaria* 40 (Fall 1995), 23.

¹⁷Tom Nesmith, “What is a Postmodern Archivist?: Can Douglas Brymner, an Unmuzzled Ox, and Star Trek Tell Us?” A paper presented to the annual conference of the Association of Canadian Archivists (May 1998), 7.

not on its content but on the functional context of its creation.”¹⁸ This not only affects how archivists perceive photographs but also how they work with them in activities such as appraisal and arrangement. Until recently, Canadian photographic archivists seldom appraised photographs in conjunction with related textual records, nor paid much attention to the functions and record-keeping practices that shaped and organized photographs in their parent agencies. And as Terry Cook stated administrative records in non-textual form have been too often torn from their functional roots and stored in separate media holdings without concern for their connection to related textual records.¹⁹

This suggests that new ways to manage archival photographs that are based more firmly on contextual knowledge are needed. This can begin when photographs are created and brought under records management control. Archivists who have begun to pay more attention to photographs have focused on the historical contextual knowledge about them that is needed. They have tended not to address knowledge of contemporary contextual knowledge required for records management of young or current photographs. Unfortunately, the records management literature has tended to ignore the particular requirements of photographs. There is little on photographs in the leading works of records management. Records management literature, like much archival literature, has emphasized the textual record and general standardized systems of record keeping.²⁰

¹⁸Schwartz, “‘We make our tools and our tools make us’,” 54.

¹⁹Terry Cook, “The Tyranny of the Medium: A Comment on ‘Total Archives,’” *Archivaria* 9 (Winter 1979-1980), 141-150.

²⁰Listed are a few examples of current books that pertain to records management principles that do not contain guidance on managing photographs: Anne Bennick, *Active Filing for Business Records*. (Prairie Village: ARMA International, 2000); Elizabeth Shepherd and Geoffrey Yeo. *Managing Records: A*

One short work that deals directly with records management for photographs was published in 1993 by the National Archives of Canada (now known as the Library and Archives of Canada or LAC). It is intended for creators of photographs and records managers in the Government of Canada. *Managing Photographic Records in the Government of Canada* provides very basic information on how to manage photographs.²¹ Only six of the guide's thirty-seven pages deal with the key issue dealt with in this thesis – the classification of photographs in records management systems. That being said, the guide does underline the central point of this thesis: "Although used by government institutions for more than a century, photographs are often not recognized as government records and are traditionally not included in departmental inventories and information management programs."²² The publication offers very general guidance on the proper care and handling of photographs held in government offices: selecting a classification system, assigning control numbers, writing descriptions, storage and preservation measures, and retention and disposal procedures. Although it is a welcome (because rare) work on records management for photographs, the guide does not provide specific examples of the classification recommendations it makes. That will be provided in chapter five of this thesis.

Handbook of Principles and Practice. (London: Facet Publishing, 2003); Bob Wiggins, *Effective Document Management: Unlocking Corporate Knowledge*. (Aldershot: Gower Publishing, 2000); David Haynes, *Metadata for Information Management and Retrieval*. (London: Facet Publishing, 2004); Mark Langemo, *Winning Strategies for Successful Records Management Programs: Proven Strategies for Developing New Programs and Improving Existing Ones*. (Denver: Information Requirements Clearinghouse, 2002).

²¹ National Archives of Canada, *Managing Photographic Records in the Government of Canada*. (National Archives of Canada, 1993), 5.

²² *Ibid.*, vii.

The rest of this chapter discusses how such records management concepts for photographs can begin to be applied to Manitoba Hydro photographs. As a crown corporation of the Government of Manitoba, Manitoba Hydro falls under the jurisdiction of the Manitoba Archives and Recordkeeping Act and the Archives of Manitoba, which administers the act. The act governs record-keeping policies within Manitoba Hydro, making the corporation accountable for the ways in which information is held and disposed of. The act states that all records need to be organized according to a records schedule, regardless of form or medium.²³ Manitoba Hydro must obtain the Archivist of Manitoba's approval of the schedule for its records. The Government Records Office of the Archives supports agency efforts to place government records in a comprehensive program of records scheduling that is designed to enable identification of archival records and destruction of non-archival ones. The Office does so as part of its mission

to ensure that full and reliable records are created and managed: to support the day-to-day activities of government, to provide evidence of government's actions, and to enable the preservation and use of records of continuing value to future generations.²⁴

Records officers in departments and crown corporations prepare the schedules. Manitoba Hydro has a records manager who plans and supervises records scheduling in the corporation. To do so the corporation can obtain guidance from the Government Records Office. Its duties include:

²³ Archives of Manitoba website, The Archives and Recordkeeping Act of 2001. <<http://web2.gov.mb.ca/laws/statutes/2001/c03501e.php>> (Viewed January 30, 2009).

²⁴ Archives of Manitoba website, <<http://www.gov.mb.ca/chc/archives/gro/recordkeeping/index.html>> (Viewed January 30, 2009).

Advise government on recordkeeping standards and best practices. Provide advice and consultation on specific records issues and initiatives. Design and oversee records scheduling procedures and advise on records retention. Identify records of continuing (archival) value to government and society, for permanent preservation by the Archives. Operate the Government Records Centre facility, which provides semi-active records storage and retrieval, and oversees controlled destruction of records following scheduled retention periods. Maintain information about records and records management activities across government.²⁵

The Archives and Recordkeeping Act affirms the importance of record keeping and provides a legal framework to support it. It establishes record keeping as a shared responsibility of the Archives and the government bodies that create and keep records. The Act says that all records, regardless of form or medium, are to be managed in accordance with its terms.²⁶ Photographs are clearly a record like any other that must be managed in accordance with the Act.

In order to develop a records management system around photographs, basic records management principles must be established and followed. Photographs should thus be included in the first steps of the implementation of an overall records management program, rather than the afterthought they usually are. These steps would include discussing if the department produced photographs and if so how do they use them. This background information would aid in the creation of classification and retention schedules.

²⁵ Archives of Manitoba website, <<http://www.gov.mb.ca/chc/archives/gro/recordkeeping/index.html>> (Viewed January 30, 2009).

²⁶ Archives of Manitoba website, The Archives and Record Keeping Act, <<http://web2.gov.mb.ca/laws/statutes/2001/c03501e.php>> (Viewed May 9, 2009), 2.

This approach to records management for photographs would build on records management standards for records in general. Indeed, a key feature of the 'literature' on records management is the standards the records management community has invested heavily in producing. In 2001 the International Organization for Standardization (ISO) produced standards for records management: ISO 15489-1 Information and documentation – Records Management Part 1: General; and ISO 15489-2 Information and documentation – Records Management Part 2: Guidelines.²⁷ It is important to note that their goal is to provide overall support for management of all types of records, or “the standardization of records management policies and procedures ensuring that appropriate attention and protection is given to all records, and that the evidence and information they contain can be retrieved more efficiently and effectively, using standard practices and procedures.”²⁸

These international standards are partly based on the pioneering 1996 Australian Standard AS 4390 Records Management, which again is general in approach and not specific to particular documents such as photographs. These standards enable accountable and efficient record keeping for governments and other institutions. Complementing these methodologies is the BACS (Business Activity Structure Classification System) a methodology from LAC which was created to support the Canadian federal government in creating a function-based classification system for their

²⁷International Organization for Standardization, *Information and documentation – Records Management – Part 1: General*. ISO 15489-1:2001, and International Organization for Standardization, *Information and documentation – Records Management – Part 2: Guidelines*. ISO 15489-2:2001.

²⁸ISO 15489-1:2001, vi.

records.²⁹ As well there is a influential records management book by British records management specialists Elizabeth Shepherd and Geoffrey Yeo.³⁰ These works were consulted when Manitoba Hydro recently redesigned its records management system. None of these standards and writings specifically discuss the organization of photographs, although they do not mean to imply that photographs are beyond the pale of records management. The ISO standards' definition of "record" is "information created, received, and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in transactions of business."³¹ This covers all information regardless of format and so it includes photographs and means that they should be treated with the same rigour as other types of records.

The records management system must enable performance of the key records management processes: determining what documents should be captured and what should be retained, along with their registration, classification, storage and handling, accessibility and tracking, scheduling, disposition, and finally, documenting the records management processes.³² This is the backbone of all sound records management programs.

A sound records management program offers an institution many benefits. Records contain valuable information. They are a corporate resource, and an important

²⁹BACS: Business Activity Structure Classification System,
<http://www.collectionscanada.gc.ca/government/products-services/007002-2084-e.html>> (Viewed May 9, 2009).

³⁰Shepherd and Yeo, *Managing Records*.

³¹ISO 15489-1:2001, 3.

³²ISO 15489-1:2001, 11.

business asset. In order to preserve and protect records as evidence of a corporation's actions, a systematic approach to the management of records is mandatory. Records allow a corporation to

- conduct business in an orderly, efficient and accountable manner, ...
- provide consistency, continuity and productivity in management and administration,
- facilitate the effective performance of activities throughout the organization, ...
- meet legislative and regulatory requirements including archival, audit and oversight activities, ...
- support and document current and future research and development activities, developments and achievements, as well as historical research,
- provide evidence of business, personal and cultural activity,
- establish business, personal and cultural identity, and
- maintain corporate, personal or collective memory.³³

For the records management program to be successful, policies have to be developed and responsibilities assigned. Records management policies should monitor, "the creation and management of authentic, reliable and usable records, capable of supporting business functions and activities for as long as they are required."³⁴

Responsibilities need to be laid out so that executives are able to support records management within the corporation, system administrators can ensure that documentation is accurate, and so all employees can assume responsibility for accurate and complete records of their work activities. A firm policy will be required for the creators and users

³³Ibid., 4.

³⁴Ibid., 5.

of photographic records to follow in order for a strong and useful records management program to become possible within Manitoba Hydro.

The ISO standard, like the recent renewed emphasis in archival literature, stresses the importance of protecting the status of records as evidence of the actions of their creators, especially by linking records to the functions of those who created them. Records should accurately reflect the business actions that created them. In order to do so the ISO standards say that a record of these actions must meet certain criteria: 1. it must be authentic, meaning that the record is what it purports to be -- an unaltered record of the actions of its creators; 2. it needs to be reliable, or trusted as an accurate representation of these activities; 3. it must demonstrate integrity, or be linked to other related records so that the record is complete; and finally, 4. it must be usable and retrievable as a record that retains links to other records and the persons and functions that created it.³⁵ These characteristics of records enable them to stand up as evidence for a corporation or other institution.

ISO 15489-2:2001 lays out how to create authentic and reliable records through design and maintenance of a comprehensive records management system.³⁶ In order to obtain the benefits of photographic evidence, an institution's photographs need to be captured in the records system and treated with the attention that has typically been accorded only to textual records. ISO 15489-2 sets out six features of sound records management methodology: 1. policies and responsibilities; 2. strategies; 3. design and

³⁵Ibid., 7.

³⁶ISO 15489-2:2001, 3.

implementation; 4. records processes and controls; 5. monitoring and auditing; and 6. training.³⁷ These steps were taken by Manitoba Hydro in its WorkSmart Project. I will discuss them further in chapter five as an example of how the ISO 15489 strategy can be implemented to establish an overall records management program that also makes provision for photographs.

Photographs traditionally have not been highly regarded as documentation by archivists and records managers. They have tended to be viewed as having much less value than textual records. They have often simply been ignored in the archival and records management literature. This has been changing slowly but steadily in recent years. Archivists in the late twentieth century began to attend more to the evidential value of photographs, within a renewed overall emphasis on the importance of knowledge of the provenance or history of records. And, as will be shown in the next chapters, photographs can be seen to be corporate records that are used to make major decisions in corporations such as Manitoba Hydro, and thus they need to be well managed and given more attention in the records management literature.

Although there are such encouraging signs, archivists have tended to emphasize the historical information needed to manage older photographs as records rather than information that may be useful in managing young photographs still in current use by their creators. Records managers themselves, however, have not stepped in to address this need. This thesis hopes to help fill that gap in the archival and records management literature and outline the main steps that could be taken to create a records management

³⁷Ibid., iii.

program for photographs in a major corporation, based on the ISO standards, and using Manitoba Hydro as the example. Although there is little specific attention to photographs in the records management literature, records management for photographs can be soundly based on the more general approaches to records management provided in the ISO standards and records management literature. Chapter two will move in this direction by outlining some of the ways in which photographs have been used by Manitoba Hydro and its predecessor hydro companies in the early twentieth century. This will underscore the importance of photographs as historical records both to a corporation and to others.

Chapter Two

Early Twentieth-Century Uses of Photographs by Hydro-Electric Companies in Manitoba

The stages of the expansion of the electrical system, which in turn shaped the advertising requirements and the photographic work at General Electric, proceeded in several stages. First came the entering wedge of lighting itself, primarily in domestic markets, hotels... Second came the building of substantial businesses with industries, street traction companies... These balanced the evening domestic consumption with a heavy demand during the day. Third came the proliferation of home appliances, beginning with fans and heaters before 1910 and then gradually expanding to irons, toasters, electric coffee pots... The historical order of these three stages could not have been logically reversed. Each built on the previous stage until the market had been fully developed...¹

Manitoba Hydro's history is one of mergers, acquisitions, and subsidiaries. Although the current crown corporation of Manitoba Hydro was founded in 1961, the history of the utility dates to the late nineteenth century. Chapter 2 will outline more of this wider historical context for contemporary management of Hydro's photographs. It first offers a general overview of the history of Manitoba Hydro. It then briefly discusses the birth of photography as a medium of communication and, in particular, the emergence of corporate photography. Finally, a sampling of Hydro's historical photographs will be analyzed to show the utility's desire to communicate its views, values, and purposes to its employees and the wider public. In order to illustrate the complexities of corporate photographic representation, I will draw upon David Nye's *Image Worlds: Corporate Identities at General Electric, 1890-1930* (Cambridge, 1985). Nye studies the

¹David Nye, *Image Worlds: Corporate Identities at General Electric, 1890-1930* (Cambridge: The Massachusetts Institute of Technology Press, 1985), 22.

photographs taken by General Electric to see how they reflect the company's attempts to shape employee and public (or customer) images of the company and their purposes.

A brief history of Manitoba Hydro helps place the historical and contemporary photographs that are discussed later into context. This section is not meant to be a detailed history of the corporation. In the latter part of the nineteenth century electric lighting and various municipal services were introduced to the city of Winnipeg and a little later in the rest of the province of Manitoba. In 1873, to attract customers after sunset to his hotel, Robert Davis, owner of the Davis Hotel on Main Street in Winnipeg, installed a carbon arc lamp.² The installation of Davis's lamp began the frenzy to supply Winnipeg with electric power. In 1881 the privately owned Manitoba Electric and Gas Light Company was established with the mandate to "supply and heat Manitoba by gas, electricity, or any other means."³ As a related historical note of interest, General Electric's International Lighting Division manager, D.M. Diggs, emphasized the significance of the introduction of electric lighting:

Every branch of the electrical industry owes much to electric lighting, for in all electrical development light is the entering wedge, introducing ...those many other labor saving devices that increased production and comfort in industry and the home.⁴

When power was provided to a home, that home not only became a potential customer for light, but also for a wide variety of other electrical appliances. As Nye states,

²Public Affairs, Manitoba Hydro, *A History of Electric Power in Manitoba* (Winnipeg: Manitoba Hydro, ca.1994), 2.

³Ibid., 2.

⁴Nye, 20.

“electrical lines tied the home to the corporation in a fundamentally new way, prefiguring the intrusion of radio and television.”⁵

By 1882 another power company was formed, the Manitoba Electric Light and Power Company. This company began to install carbon arc lamps along Main Street and Broadway in Winnipeg, but it folded as fast as it appeared. Also in 1882, the Winnipeg Street Railway Company was incorporated by Albert Austin.⁶ Austin was given authority to operate horse-drawn streetcars along Main Street. On 25 August 1883, North West Electric Light and Power Company Limited was incorporated and contested the Winnipeg Street Railway Company's pursuit of an exclusive contract to supply light to Winnipeg's streets. This new company won the contract dispute and received the right “to provide electric supply and lighting to any city or town in Manitoba.”⁷ However, by 1888 the North West Electric Light and Power Company Limited lost the lighting contract and by 1898 the Winnipeg Electric Railway Company had a monopoly over the electric railway, and both heat and lighting created by electricity and gas.⁸

The battlefield was still open for new power companies to try their luck in Winnipeg and two companies did try to establish themselves. The first in 1902 was the Suburban Rapid Transit Company and in the following year it was the Winnipeg General Electric Power Company. During 1904-05 the Winnipeg Electric Railway Company amalgamated with the Winnipeg General Electric Power Company. Following this

⁵Ibid., 20-21.

⁶Manitoba Hydro, *A History of Electric Power in Manitoba*, 2.

⁷Ibid., 3.

⁸Ibid.

amalgamation, it purchased the Suburban Rapid Transit Company.⁹ Winnipeg was thus under the control of a private utility monopoly.¹⁰ This monopoly did not last and in 1906 the City of Winnipeg decided to set up a municipally run hydro electric utility to lower and stabilize the price of electricity for citizens.

In 1906 the citizens of Winnipeg voted to approve a by-law authorizing construction of a hydro electric power plant that was owned by the city. The generating station would sell electricity to the people for three cents per kilowatt-hour compared to the twenty cents per kilowatt-hour that the Winnipeg Electric Railway Company was charging. Use of electricity was encouraged by lowering utility rates. Therefore, to build constant load on a central generating station, companies gave lower rates to homeowners and these lower rates attracted new customers.¹¹ Alderman John Wesley Cockburn predicted that the citizens of Winnipeg would vote yes, so he bought the development rights to Pointe du Bois before the public vote.¹² He then surrendered the development rights and the Winnipeg Hydro Electrical System was created. The Pointe du Bois generating plant began operating on 16 October 1911. The switch that ceremoniously controlled the power was turned on by Gurney Evans, the son of Mayor Sanford Evans.¹³

⁹Ibid.

¹⁰In 1924 the Winnipeg Electric Street Railway Company changed its name to Winnipeg Electric Railway Company.

¹¹Nye, 22-23.

¹²Winnipeg Hydro, *50th Anniversary: City Hydro, 1911-1961* (Winnipeg: Bullman Bros. Limited, 1961).

¹³The Winnipeg Hydro Archives in the custody of Manitoba Hydro contains the switch that was pulled to start the power running to Winnipeg. The switch was a publicity prop that has since been used numerous times in turning on the Christmas lights along Portage Avenue.

The animosity between the Winnipeg Electric Railway Company and the new municipally run Winnipeg Hydro Electrical System flared soon after 1913. The Winnipeg Electric Railway Company filed injunctions against the new company to restrain the City from erecting hydro poles in Winnipeg. Furthermore, both sides appeared to have unstrung wires on poles that they each had claimed as their own.¹⁴ Workers arriving at their workplaces in the morning would be faced with the rewiring job. Eventually legislation required the sharing of poles by the two companies.

In 1913 another hydro-electric company was formed, the Winnipeg River Power Company. This company created a strong working relationship with WERCo. (or Winnipeg Electric Railway Company) a previously formed company for the purpose of building the Great Falls generating station. Preliminary research and surveying on the Great Falls generating station were completed by 1914. On 1 September 1915 construction of the Great Falls generating site started.¹⁵ Due to World War I the project was halted in June 1916. It recommenced in May 1919 for a short time. However, financing of the project was still extremely tenuous. Also in 1919 the Electric Power Transmission Act of Manitoba was passed, and the Manitoba Power Commission (MPC) was formed. By the following year the Manitoba Power Commission had taken over construction of the Great Falls generating station.¹⁶ The 1919 Electric Power Transmission Act states that MPC's mandate was "to generate, purchase, transmit, and

¹⁴Winnipeg Hydro, *50th Anniversary: City Hydro, 1911-1961*.

¹⁵Manitoba Hydro, *A History of Electric Power in Manitoba*, 10.

¹⁶*Ibid.*

distribute electrical energy” throughout rural Manitoba.¹⁷ MPC purchased the power from the City of Winnipeg and the Winnipeg Electric Company (WECO.). The Electric Power Transmission Act allowed any municipality to apply for electrical service through the Minister of Public Works, thus putting an end in rural Manitoba to small municipally run and costly independent power systems. As David Nye notes:

The electrification of a nation cannot occur as a result of the competition in a laissez-faire marketplace... A single city can no more have competing electrical systems than it can have competing water supply systems... The possibility that different houses on the same street could be supplied with electricity by as many different companies appeared plausible only briefly in the early twentieth century.¹⁸

At the turn of the twentieth century, the city of Brandon had its own power and gas companies -- the Brandon Electric Light Company Ltd. and the Brandon Gas & Power Company Limited. In 1921 the two companies were consolidated to form the Canada Gas & Electric Corporation of Brandon.¹⁹ In 1931 this corporation was purchased by the Manitoba Power Commission. This again demonstrates the rapid amalgamations that were occurring in the power companies in the province of Manitoba.

On 5 April 1924 the Winnipeg Electric Railway Company changed its name to the Winnipeg Electric Company. That year also saw the formation of the Northwestern Power Company, which was created for the purpose of building the Seven Sisters generating station.²⁰ It was not long, however, before this small company went through a merger with the Winnipeg Electric Company. By 1931 with the opening of the Seven

¹⁷Electrical Power Transmission Act. Manitoba: Winnipeg, (1919)

¹⁸Nye, 21.

¹⁹Manitoba Hydro, *A History of Electric Power in Manitoba*, 13-16.

²⁰*Ibid.*, 14-15.

Sisters generating station, which was now operated by the Winnipeg Electric Company, the new owner was now selling power to the Manitoba Power Commission. Also in 1931 the Electrical Power Transmission Act was revoked due to lack of control of the payment structure for utility services. MPC had been selling power to municipalities, which then resold it to individual rural customers. As a result there was quite a diversity of rates and policies. When Manitoba began to slide into the Depression, some rural citizens were unable to pay their electricity bills, which meant that local municipalities could not pay the Manitoba Power Commission. The Manitoba Power Commission Act allowed for the restructuring of MPC and created a board to manage the company.²¹ By 1933 new contracts were drawn up providing municipalities with electricity for public services only, and MPC began dealing with individual customers.

In May 1935 a consolidation plan for the Winnipeg Electric Company was approved. The purpose of this plan was to reorganize the properties and operations of the Winnipeg Electric Company and its associates. These associate companies were: the Northwestern Power Company, Manitoba Power Commission, Suburban Rapid Transit Company, and Winnipeg Selkirk & Lake Winnipeg Railway Company.²² The mission was for the Northwestern Power Company and Manitoba Power Commission to become one company under the name MPC and to operate the other ones as subsidiaries.

As the economy of Manitoba grew again after the Depression, there was greatly increased demand for electrical service throughout the province that required additional

²¹Manitoba Hydro, *A History of Electric Power in Manitoba*, 16.

²²Ibid.

generating capacity. In 1949 the provincial government and the three major electrical utilities: the City of Winnipeg Hydro Electric System, the Winnipeg Electric Company, and the Manitoba Power Commission met. They agreed that the future power needs of Manitoba would be best served by a coordinated policy on developing and distributing electricity. In order to implement this policy, the provincial government created the Manitoba Hydro-Electric Board (MHEB) "to provide for the continuance of a supply of power adequate for the needs of the province, and to promote economy and efficiency in the generation, distribution, and supply of power".²³ The board's initial undertaking was construction of the Pine Falls Generating Station in order to provide for the growing electricity demands of the province.

On 18 May 1951, MHEB appointed members: D. M. Stephens (Chairman and General Manager), W.D. Fallis, J.W. Sanger, D.A. Thompson, and A.H. Watson. George Reid was appointed Acting Secretary.²⁴ The board's first duty was to consolidate the generation and distribution facilities in Manitoba, which was no small feat and took 10 years to complete. During 1952-1953, MHEB acquired the generation and distribution facilities of WECO., thus reducing the number of electrical utilities in Manitoba to three: MHEB and MPC, which were owned by the provincial government, and City Hydro, which was owned by the City of Winnipeg.

In 1955 further consolidation of power service occurred when MPC became the sole distributor of electricity in suburban Winnipeg and the rest of the province, while City Hydro became the sole distributor within the boundaries of the City of Winnipeg.

²³Manitoba Hydro-Electric Board. Winnipeg: Manitoba, (1949)

²⁴Manitoba Hydro, *A History of Electric Power in Manitoba*, 16.

Also through this agreement, MHEB promised to supply the additional power requirements of City Hydro. Ten years later, the two provincially owned utilities, MHEB and MPC, were amalgamated via the Manitoba Hydro Act, which was passed on 1 April 1961 and created Manitoba Hydro.

The 1960s and 1970s were a period of northern expansion and general growth for Manitoba Hydro. The Kelsey generating station on the Nelson River was completed in 1960 and an interconnection power line joined Manitoba Hydro and SaskPower, enabling Manitoba Hydro to sell power to the neighbouring province. In 1963, a study of the viability of building further generating stations on the Nelson River was commenced. By 1965, the Grand Rapids generating station located on the Saskatchewan River became operational.²⁵ The last major event of the 1960s was the creation of the Northern Microwave System. It controlled the DC (direct current) transmission of Nelson River power to the south. The microwave system improved telecommunications and brought television to northern Manitoba.

In 1970 the second generating station (called Kettle) on the Nelson River was completed and an interconnected transmission line was built to the United States for the sale of power.²⁶ By 1971, the Dorsey and Radisson Converter Stations began operating to convert AC (alternating current) produced at the generating stations into DC. In 1972 transmission lines were built to sell power to Saskatchewan and Ontario. By 1979, the Jenpeg generating station was completed on the Nelson River and the Energy Rate

²⁵Ibid., 32.

²⁶Ibid., 35.

Stabilization Act was passed.²⁷ It enabled the Government of Manitoba to implement a five-year fixed electricity rate for households.

The 1980s saw service and reliability improvements at Manitoba Hydro. In 1984, automatic control was installed at the System Control Centre in Winnipeg.²⁸ This computer-based system allows Hydro to monitor all of the Generating Stations and Transmission lines and to adjust the electricity needs of customers. In 1985, a computerized Customer Service system was established to streamline the customer billing process.²⁹ In 1988, an interconnecting underground line was completed between Manitoba Hydro and Winnipeg Hydro to improve the capacity and reliability of electric service. Finally, in 1989 citizens of Manitoba were permitted to purchase Manitoba Hydro savings bonds.

The 1990s demonstrated growing consciousness about the environment at Manitoba Hydro. The Power Smart program was introduced. This program promotes a variety of ways in which to be energy efficient. They range from proper insulation and lighting to thermostat control. In 1991, a compensation agreement was signed with the Split Lake Cree First Nation. The agreement saw Manitoba Hydro pay \$29.9 million to the Split Lake Cree in compensation for the adverse affects of the Churchill River diversion.³⁰ In 1993, the "Louie the Lightning Bug" club was initiated for children, to educate them about electricity and the importance of using it safely. In 1999 Manitoba

²⁷Ibid., 40.

²⁸Ibid., 45.

²⁹Ibid., 47.

³⁰Ibid., 54.

Hydro acquired Centra Gas Manitoba and thus became provider of two key sources of energy in Manitoba, electricity and natural gas. In 2002 Manitoba Hydro purchased Winnipeg Hydro from the City of Winnipeg and so acquired responsibility for generating, transmitting, and distributing electrical energy throughout all parts of the province.

By the 2000s Manitoba Hydro was the pivotal and powerful energy supplier to all Manitobans and to parts of the midwestern United States. Hydro emerged from a long, complex competition among different suppliers of electrical energy. The success of their efforts depended on persuading the public of the benefits of electrical power. They used photography extensively to do so and to build their power installations. Photographs were a key to the competitive advantage they sought. In so doing they were like many other business entities in the nineteenth and twentieth centuries, which seized upon the promise of the new medium of photography. Indeed, the technical and commercial uses of photography were among its earliest and most significant ones and, moreover, among its inventors' ambitions for the new medium.

The origins of photography can be traced to Joseph Niépce in France. Niépce was an amateur scientist and inventor looking for a method of making images permanent.³¹ During the 1820s he discovered a way to stabilize the reflections formed on sensitized metal plates by the projection of light, and also experimented with the *camera obscura*.³² In 1826 Niépce started to collaborate with Louis Daguerre, who was working on a similar

³¹Gilles Mora, *Photo Speak: A Guide to the Ideas, Movements and Techniques of Photography, 1893 to the Present* (New York: Abbeville Press, 1998), 62.

³²Beaumont Newhall, *The History of Photography: From 1893 to the Present Day* (7th ed. New York: Museum of Modern Art, 1981), 11.

project. By 1837, using a modified version of Niépce's process, Daguerre was able to fix detailed images on a metallic base.³³ On the advice of a scientist, the French government purchased the patent to the 'daguerreotype' to make the technology available free to the public. The government minister who advanced this idea suggested that photography would thereby render great service to the study of science and be of even greater benefit to the arts.³⁴

Photography was quickly put to commercial purposes. Commercial photography emerged in the late nineteenth century with the creation of more and larger corporations and their need to find innovative ways to sell products.³⁵ In order for this form of photography to be seen by potential customers, a new technical printing process called the halftone played a key role. The halftone, which was invented in 1880, enabled the photograph to be printed on the same page as text, using standard paper.³⁶ This revolutionary process transformed popular magazines and internal corporate newsletters by replacing non-photographic illustrations with photographs. As Nye so aptly states:

The seeming transparency of photographs obscures their ideological function in the corporation's presentation of the multiple versions of itself to the world. Each photograph seems prototypically real, a replica of something indisputably actual. Because photographs have this quality, they proved uniquely well suited to the corporation's need to address many audiences, giving its messages the aura of fact. Photography thus proved to be the ideal form of communication in the urban society that grew to dominance between the 1890 and 1930.³⁷

³³Ibid., 14.

³⁴ Vicki Goldberg, ed., *Photography in Print: Writings from 1816 to the Present* (New York: Simon and Schuster, 1981), 31.

³⁵Nye, 31.

³⁶Ibid., 32.

³⁷Ibid., 16.

Some corporations were large enough to have numerous photographers on staff in their publicity department, while others hired them for specific shots. The role of the corporate photographer at General Electric was twofold -- to travel the United States in search of electrical events, such as the introduction of streetlights that used the company's products and to visit the company factory to take product and equipment photographs.³⁸ Winnipeg Hydro had one photographer on staff who took the same kinds of images as the General Electric photographer.

The following section will discuss the corporate and societal meaning of Winnipeg Hydro's and the Manitoba Power Commission's historical photographs. Some of these images were used in newsletters from the 1920s to 1950s. Other photographs were for internal corporate use only. In the 1920s Winnipeg Hydro's Publicity Department started to produce a newsletter entitled *Hydro News*. The *Hydro News* provided the general public with information on the formation of the company and safety issues, promoted the sale of electricity and electrical appliances, advertised events, and provided the reader with humorous articles. The *Hydro News* promoted the company's products and services and attempted to shape the public image of the company, especially by using photographs.

The Manitoba Power Commission produced two internal/external newsletters in order to maintain contact with customers and employees. These newsletters were *Town and Farm*, published from 1946 to 1955, and the *MPC Bulletin*, published from 1938

³⁸Ibid., 37.

to 1961.³⁹ These newsletters were included with the power bill or could be picked up at any Manitoba Power Commission Office. The newsletters provided information on the progress that farm electrification was making, carried information on employees, and announced local events.

By the early twentieth century, the practice of systematic management emerged in business and brought with it a key role for the corporate newsletter. This new management technique was used to address worker alienation in the ever growing business institutions of the time. The management of Winnipeg Hydro, although not a privately owned company, sought to personalize its relationship with the workforce through the in-house newsletter. An American business expert explained the function of such newsletters in 1918:

Many shops have outgrown the one-man stage. No longer can the head of the organization interpret his policies personally to the workmen. But a factory house organ, whether it be a single typewritten sheet or a 24-page magazine, offers an opportunity to bind personal interest closer in the small shop and keep management from becoming mechanical in the large plant.⁴⁰

The in-house magazine empathized with employee concerns and through this hoped to obtain worker cooperation with the more demanding work requirements of the systematic management approach. For Winnipeg Hydro the newsletter became a medium of communication with both employees and citizens of Winnipeg and photographs were deliberately chosen to share knowledge, accomplishments, and a sense of belonging.

³⁹The Hydro-X has a collection of the following two newsletters: Manitoba Power Commission, *Town and Farm* (Winnipeg, Manitoba: Manitoba Power Commission) dates 1946-1955 and Manitoba Power Commission, *Bulletin* (Winnipeg, Manitoba: Manitoba Power Commission), dates 1938-1961.

⁴⁰Joanne Yates, *Control Through Communication: The Rise of System in American Management* (Baltimore: John Hopkins University Press, 1989), 17.

In the U.S. General Electric became a master of the in-house magazine by becoming the largest corporate publisher in America. It published five in-house magazines targeted at different types of employees. In 1903 the company started to publish the *Review*; in 1917 *Workers News* was developed for the blue collar labourer; in 1922 the *Monogram* was born to provide information to managers and *General Electric News Graphic* for the appliance salesmen was launched.⁴¹ The last two of such internal magazines to be created were *Light*, in 1923 for lighting specialists, and *G.E. Digest* for overseas personnel in 1924.⁴² Writing styles, choice of photographs, and types of stories were crafted by management to inform the specific employee about various relevant topics. Thus, through the in-house magazines General Electric's management controlled how the company was represented to the individual employee. The newsletters put out by Winnipeg Hydro and the Manitoba Power Commission had similar content and types of photographs.

In October 1921, Winnipeg Hydro's Public Relations Branch published the first external-internal newsletter entitled *Hydro News*.⁴³ The newsletter was a four page pamphlet. It was a monthly bill insert for customers and handed out to employees. The first story entitled "We Make Our Bow to the Public" showed the birth of the *Hydro News*:

With the advent of our Tenth Anniversary on October 15th, we present to the Public our first issue of the Winnipeg Hydro News. We hope to make this publication of interest to our patrons

⁴¹Nye, 60.

⁴²Ibid.

⁴³Winnipeg Hydro, *Hydro News* (October, 1921).

by not only telling them about the activities of the Hydro Electric System but to add items of human interest which, we feel sure, will make good reading. There is no doubt that to a large extent the Hydro Electric Plant is a mystery to the majority of the Citizens, and it will be our aim in the series of bulletins we intend to publish to bring home more closely to the Citizens the wonderful asset they have in the Municipal Hydro Electric System.⁴⁴

The *Hydro News* informed the public about its municipal power company, how it was operated, and the benefits provided to customers. It also carried humorous stories or quotes to make the newsletter lighthearted. The company hoped customers would deem it important 'family' news.

Internal company newsletters aimed at providing their employees with a strong sense of the corporation as a social community and even 'family'. As one American businessman noted in 1919, familial ties were promoted by public relations departments within a company:

One of the words often used to express the spirit desired in industrial organization is "family." The ideal sought for is that all workers from the president to the office boy shall feel that they belong to one big family and have loyalty which that relationship implies. The employer wants his men to work not for him but with him. The aim in all industrial service work is hearty cooperation by each because of the recognition of common interests.⁴⁵

In-house newsletters aimed at humanizing the company in order to improve worker cooperation and efficiency.

Group corporate photographs are prevalent in the Manitoba Hydro collections and demonstrate the effort to create a sense of belonging and community. This type of

⁴⁴Ibid.

⁴⁵Yates, 17.

photograph was taken at annual conferences, such as the one from the Manitoba Power Commission in Brandon of District Supervisors (Plate 1), and of employees who formed the 1938 City Hydro hockey team (Plate 2), and of the entire corporate picnic gathering (Plate 3) that brought all workers together. These photographs downplay individualism and promote communalism in work, sports and outings.⁴⁶

The Winnipeg Hydro Public Relations Branch also used the *Hydro News* to try to create close bonds with customers. One method of accomplishing this was to promote the fact that it was municipally owned, and therefore owned by its users. It touted the success of other municipally owned hydro companies in major cities in the United States in stories such as one entitled "Municipal Ownership Keeps Fares Down in San Francisco."⁴⁷ It also then crowed about the "loyalty" of its own customers (Plates 4 and 5).

The *Hydro News* was also a medium through which the General Manager of Winnipeg Hydro could address the public about important issues. In July 1922 the General Manager, J.G. Glassco, discussed how the weather in the previous two months had affected the transmission of power from Pointe du Bois to Winnipeg.⁴⁸ During May and June two cyclones caused power outages in Winnipeg and extensive damage to the transmission towers and lines. Glassco then proceeded to promote the building of a Steam Plant that would act as a standby source of electricity if ever there were problems

⁴⁶Nye, 82-85.

⁴⁷Winnipeg Hydro, *Hydro News* (June, 1922).

⁴⁸Ibid.

with the transmission line.⁴⁹ In this instance, the *Hydro News* acted as a vehicle to transmit the General Manager's concerns to the public.

The General Manager's message was followed by three pages of photographs of the devastation the cyclone wreaked on Winnipeg Hydro property. It is important to note how these photos were presented to the public (Plate 6). They were laid out in a collage. Behind them and to their sides were drawings of the cyclone and its aftermath of bent transmission towers and uprooted trees. The drawing links the various photographs and the windstorm was portrayed as being alive to the viewers, and as if they were there to experience the extreme havoc. This powerful imagery drove home Glassco's message about Hydro's importance.

Winnipeg Hydro provided a variety of entertainment to Winnipeggers and these events were advertised in the *Hydro News*. The Winnipeg Hydro Follies entertainment troupe provided musical skits for public entertainment (Plate 7). The first public performance was scheduled for January 1922 and explained that "A splendid programme is being arranged ... they are preparing **Light** songs and **Powerful** sketches which will no doubt create quite a **Shock** when they make their **Connection** with the Winnipeg Public."⁵⁰ The Follies troupe was formed by Hydro employees who practised in the evenings after work under the guidance of Donald St. Clair of Dr. Horner's Opera Company and S.J. Reid the Choirmaster of the St. John's Presbyterian Church.⁵¹ With this calibre of leadership these performances must have been intended to be both

⁴⁹Winnipeg Hydro, *Hydro News* (July, 1922).

⁵⁰Winnipeg Hydro, *Hydro News* (December, 1921).

⁵¹Winnipeg Hydro, *Hydro News* (December, 1925).

entertaining and edifying. The published photograph of the Follies group helps show the company's concern for the welfare of its employees by its creation of a creative outlet that brought them public appreciation. It also reminded Winnipeggers of the company's role in developing a community that had the leisure and talents to enjoy the life made possible by modern electrical technology.

Winnipeg Hydro also organized dances. They provided an escape from everyday chores, a time to bond with your husbands and wives or perhaps meet new people. At the Hard Times and Masquerade Dance in 1927, people could dance to the music of the Moonlight Serenaders Orchestra and win prizes for costumes.⁵² The dance was held at 54 King Street, at the Hydro head office. The King Street location in the heart of the business district was thus transformed into a public space for fun and merriment (Plate 8). Thus, Winnipeg Hydro was again associated with community well being and progress.

In addition to dances Winnipeg Hydro also played a role in major city social events such as parades. Hydro entered a grand float in the July 1927 city Diamond Jubilee parade (Plate 9). The float and its photograph were designed to symbolize the importance of electricity.⁵³ Citizens could gaze on their power company as both utilitarian and beautiful. For people who could not attend the celebrations, a photograph and short story about the Hydro float were included in the *Hydro News*.

While dances and parades acted as occasional indicators of Hydro's place in society, promotional calendars could serve as constant reminders. The calendars could be picked up at the main office on King Street and the *Hydro News* was used as a reminder

⁵²Winnipeg Hydro, *Hydro News* (April, 1927).

⁵³Winnipeg Hydro, *Hydro News* (July, 1927).

to do so. The calendars in the 1920s promoted the use of electrical appliances with beautiful reproductions of photographs on the cover (Plate 10). On the back of each page recipes and helpful hints were printed, a precursor to the Home Economics column in the *Hydro News*. These photographs functioned much as those described by Nye in the American context:

... repeated advertising made the unknown familiar, the exotic commonplace... Photography provided an ideal form of repetition, making new products a visual reality as familiar objects inserted into known environments, such as the home or a city street. Photography was not a casual sideline for General Electric but a crucial form of promotion necessary to the company. To a considerable degree, it permitted the customer to visualize change and to possess new products imaginatively.⁵⁴

This reinforcement through product placement occurred every time the customer looked at the calendar photographs.

Hydro News articles were often written with accompanying photographs to interest the female audience. The October 1935 *Hydro News* reported that Winnipeg Hydro had hired Betty MacKay, an expert in "Home Economics and Domestic Science."⁵⁵ She was hired to provide helpful household hints and recipes for the female customers of Winnipeg Hydro:

You women of Winnipeg hitherto have had no one to turn to about your various problems which are constantly arising, whether it is trouble with your stove or a desire for new ideas in entertainment. Perhaps you have been having trouble with some of your electrical equipment or maybe your cakes are not turning out as satisfactorily as they should. Many are the problems which arise in a home and I

⁵⁴Nye, 27.

⁵⁵Winnipeg Hydro, *Hydro News* (October, 1935).

am very glad to say that this department, which has been recently opened, is to assist the housewife.⁵⁶

Clearly, Winnipeg Hydro recognized women as key purchasers of electric appliances.

The inclusion of Betty MacKay's column changed the format of the *Hydro News*. The newsletter became two pages longer, a shift from four to six pages. Instead of contacting an older matriarch for advice, female readers could now contact their Hydro company directly -- though still through a female guide. Moreover, with the shift to electric appliances it was assumed that women needed advice from "knowledgeable" people. Winnipeg Hydro also had a fiscal motive - the sale of electrical appliances to Winnipeggers. By October 1937 Beryl Williamson became the Hydro Home Economist and wrote a column called "Recipe-of-the-Month."⁵⁷ Housewives were urged to phone the Home Economist for personal advice on purchasing electrical appliances.

The Manitoba Power Commission hired its first Home Economist, Elizabeth Goulding, in 1946.⁵⁸ She provided recipes, household advice, party entertainment ideas and information on electrical appliances. Photographs played a key role in promoting her work (Plate 11). The Home Economist was designated the assistant editor of *Town and Farm* as well as the *MPC Bulletin*. Later in life, Margaret Shaw, once an MPC Home Economist, described her job and the use of photography in her work:

The recipes used all had to be tested, and photos were taken of the finished products. There was no test kitchen in my time at the Hydro. I would buy all the supplies, bring them home, and

⁵⁶Ibid.

⁵⁷Winnipeg Hydro, *Hydro News* (October, 1937).

⁵⁸Manitoba Hydro, *History of Hydro-Electric Power in Manitoba*.

prepare the recipes for the following month in my parents' kitchen. My mother was often interested and helped.⁵⁹

As one scholar notes about the widespread use of Home Economists by companies, "Advertisers came to see women as their audience: home economists taught women how to shop and how to plan for shopping."⁶⁰ Also, as Nye observes:

While all the emphasis in advertising and public relations fell on what came into the home as a result, of equal importance was the equivalent flow of money out. As electricity became the energy preferred for almost every domestic necessity, this linkage of the home and the corporation began to appear part of the natural order.⁶¹

In 1914 Winnipeg Hydro started selling electrical appliances and installing electric ranges. By 1920 the success of this work was sufficient enough to justify the opening of a beautiful showroom on Princess Street. The Appliance Department sold an assortment of electrical appliances: ranges, washing machines, refrigerators, vacuum cleaners, irons, fans, and percolators, to name but a few. By 1935 Winnipeg Hydro relocated the showroom to the main downtown shopping area of the city in order to attract more customers. This store was called City Hydro and not only sold appliances, but also housed Hydro's first Model Kitchen and the Home Service Branch (Plate 12).⁶²

The Manitoba Power Commission also was in the business of selling appliances (Plate 13). It occasionally introduced appliances to Manitobans through town parades. The company would enter a float to attract potential customers (Plate 14). The float in this 1926 Portage la Prairie parade displays the only electric stove available for sale in the

⁵⁹Presentation to the Manitoba Power Commission Farm Electrification Celebration, September 18, 1992. Taken from Manitoba Hydro, *Power Commission 75th Anniversary*, 30.

⁶⁰Susan Strasser, *Never Done: A History of American Housework* (New York: Pantheon Books, 1982), 243.

⁶¹Nye, 21.

⁶²This photograph is of a later Model Kitchen.

city. The two women on the float are dressed in professional cooking whites complete with the toque. This float and its photograph demonstrate the rise of cooking as a 'Domestic Science', not a chore in the home, as a result of electricity.

Corporate milestones prompted popular stories that were often written about in the corporate newsletters. The November 1954 *Bulletin* of the Manitoba Power Commission celebrated the 100,000th farm customer (Plate 15). The photographs that accompany the article demonstrate the importance of the event. A sign designating the event has been placed by the farm meter. Premier Douglas Campbell participated in the event. The Weerts family is represented as a happy rural hydro customer as they gaze at the farm meter in one picture and Mr. Weerts turns the meter on in another. Electricity was promoted as a means to perform various farm duties from cooking to outdoor chores. Electricity promised relief from farm drudgery and backbreaking chores.

In addition to using publications to promote rural electrification the Manitoba Power Commission used an event called a "Field Day." It provided a way in which farmers could easily access information about electricity services. Margaret Shaw provided insight into Field Days:

Some opportunities for direct contact occurred at the annual Manitoba Power Commission Field Days in which men from the MPC, the Department of Agriculture, the Engineering Department of the University, the MPC home economist and a home economist from the Extension Service (Department of Agriculture) held demonstrations of the many uses of electricity on the farm. In 1951 there were 13 of us in the crew. At the Field Day we set up a farmhouse, and took turns demonstrating how the various appliances worked. The farmers' wives who were hostesses on Field Days were special people. The days were quite a bit of work for them, and they let crowds of neighbors wander through their homes for most of the day.⁶³

⁶³Presentation to the Manitoba Power Commission Farm Electrification Celebration, 30.

Field Days allowed farm men and women to see the latest electrical services at work (Plate 16). This plate illustrates a demonstration of an electric motor and was used as a publicity photo to promote Field Days.

Photographs were also used to enhance the public's sense of a great scientific project underway. The depiction of the generators in the 1923 photograph in (Plate 17) blends two messages. The absence of a person in it suggests, as Nye observes of similar early twentieth-century General Electric engineering photographs, "the ideology of professionalism and scientific expertise rather than social involvement."⁶⁴ But Winnipeg Hydro has softened and personalized this possibly alienating pictorial message with the photograph's caption "Generators in YOUR Plant at Point Du Bois." The photograph suggests both the immensity and complexity of the new electrical technology and thus enhances its prestige as the company that operates it and that this technology can be mastered by the company's experts for the community's benefit.

The remaining two photographs of hydro equipment (Plates 18 and 19) also illustrate the social messages electrical power companies were trying to convey in order to advance their goals. Plate 18 shows a 1930 gas engine Buda Digger used to dig holes for transmission poles. It is displayed on a page that used to be part of an album. The digger is being operated by Hydro employees. This montage demonstrates four of the steps taken to dig a hole. These photographs appear to symbolize the steady march (one post at a time) of electrical progress until the end result (electrification of all rural Manitoba) is achieved. Also, these photographs seem to show that it is the common man

⁶⁴Nye, 69.

or farmer who is making electricity possible in the field and not just white-coated urban technicians. Plate 19 also seems to demonstrate complex technical work in progress. This is a photograph of a 69KV Solid Type 1 conductor 350,000 CM cable, which was installed in 1948.

This chapter has attempted to cast light on why at least some of the tens of thousands of Manitoba hydro company photographs were taken in the early twentieth century and their great value for the study of these companies and various aspects of Manitoba's history. This points again to the importance of proper records and archival management of them today. The chapter suggests that the province's hydro companies learned early on how to use photography as an advertizing tool to link their business goals with broader community purposes. Photographs were a key to their success in becoming (particularly through creation of Manitoba Hydro in 1961) among the most important institutions in the province.

Chapter 3

Examples of Manitoba Hydro's Current Use of Photographs

Manitoba Hydro uses photographs in all areas of its work. In order to provide sound management of such corporate images, we need to understand the different uses to which they are put. This chapter offers a sample of these uses. Due to the size of the corporation, a full study of Hydro's uses for photographs is not possible. The Public Affairs Department requires photographs for the published Annual Report on its activities. The Manitoba Electrical Museum uses historical photographs to tell the corporate story. The Environmental & Land Use Planning Department uses images to address environmental issues. Dam Safety, Civil Engineering, uses photographs to monitor structures, rebuilding projects, and for reporting purposes. Technical photographs could be required to maintain or modify existing facilities. These departments use photographs as records like any others that have administrative, operational, legal, and historical value to the corporation. As Schwartz states, "photographs are documents, created by a will, for a purpose, to convey a message to an audience."¹

Corporations create commemorative history books to celebrate anniversaries of the key events. In February 2002, Winnipeg Hydro was sold to Manitoba Hydro, thus forming one hydro-electric utility in Manitoba. This historic sale spurred the Winnipeg

¹Joan M. Schwartz, "'We make our tools and or tools make us'," 42.

Hydro Public Relations department to produce a history book entitled *Winnipeg Hydro Reflections 1911-2002*. The book was to be presented to all the staff, city officials and libraries as a reminder of the important contribution the City's electric utility had made. As no general complete history of Winnipeg Hydro had ever been written before, this became a major undertaking. A synopsis of the book will be given here, with emphasis on how photographs were chosen and used to tell the story of Winnipeg Hydro.

It was decided that a popular coffee-table history would be the best way to enable the most people to learn about and relate to the company.² Because of their power to attract and convey information effectively to a wide audience, historical photographs were clearly going to play a key role in the company's current public relations purposes.

The book's chapters are organized around hydro installations and the divisions and functions of the company. Photographs were chosen to amplify the story. They were a visual representation of text. There are over 20,000 photographs in the Winnipeg Hydro Archives. When pursuing company records for information, an eye was kept on the images used in reports or publications. These images were noted and then looked for in the photograph collection, as they provided context for the original intent of the image.

To gather primary sources for the book, each chapter was provided with a labeled file folder and relevant material collected from the Hydro Circuits, Hydro News, Annual Reports and Reports on Operations. Once all of the material was collected to

²I had a major role in the research and writing of this book. I made the initial choice of photographs and artifacts that were used. I was one of a team of two who compiled all of the archival material for the book. I wrote the corporate milestones and provided editorial feedback on the text and I organized the distribution of the book to Hydro employees, libraries, and public officials.

produce the text of the book, the images to accompany the chapters were chosen. Images were chosen that had been featured with specific stories and to represent large pieces of the chapter. Within each chapter there is a blend of archival and contemporary photographs. Examples of Pointe du Bois photographs are as follows: there are construction shots of the Generating Station, and images of the contemporary town such as the school house, children playing, and the old grocery store. These images are combined with contemporary images of the current town, hockey team and fire department (Plate 20). The photographs used in *Winnipeg Hydro Reflections* provide different messages to different readers. As Nye discusses in *Image Worlds*, various General Electric images were directed at specific groups such as workers, managers, and consumers. Photographs are used to evoke memories, the great company picnic or company civic pride in collecting toys for families in need, and recognition of successful projects such as the building of a generating station.

The Manitoba Electrical Museum also uses photographs to explore historical events. This museum is owned by Manitoba Hydro and is used to convey the history of hydro electricity in the province. It operates as an Educational Centre to promote the safe use of electricity to school children. The museum is staffed with two Manitoba Hydro employees and tours are given by Hydro retirees. The historical artifacts that are used within the museum are under the custody of the Hydro-X, who are members of the Manitoba Hydro retiree club. The Hydro-X store the company's historical artifacts and some photographs at their workshop, which is separate from the museum. Through the Canadian Heritage and Information Network (CHIN) Community Memories project a

virtual exhibit on providing electricity to rural Manitoba was launched in May 2003. Community Memories is a federal government program that provides financial grants to small museums. It aims to strengthen the capacity of smaller museums to create content for the Web by supporting their development of on-line exhibits of local history.³ While working at the Manitoba Electrical Museum I proposed and wrote a grant for an exhibit entitled "Powering Up Rural Manitoba." This exhibit fit into the mandate of the Community Memories project, which aimed at exploring a town's main industry, a historical event, or a way of life. In addition, the information pertaining to these topics must come from the institution's permanent collection, personal photographs, documents and oral reminiscences of local citizens.

The exhibit "Powering Up Rural Manitoba" is the story of rural electrification in Manitoba after World War II and how it affected the lives of rural communities. The exhibit is displayed in two parts: a gallery of photographs, advertisements, and sketches; a compilation of four short stories that discuss various aspects of rural electrification: 1. The Emergence of Farm Electrification in Manitoba; 2. A Photographic Collection: Building Up Rural and Farm Electrification; 3. Promoting the Use of Electricity; and 4. The Progression of Electrical Appliances.⁴ The project took one year to complete and there are 130 photographs in the exhibit.

³Canadian Heritage Information Network,
<http://www.chin.gc.ca/English/Members/VMC_Memories/index.html> (Viewed February 15, 2009).

⁴Canadian Heritage Information Network, Community Memories, "*Powering Up Rural Manitoba*,"
<http://www.virtualmuseum.ca/PM.cgi?LM=CommunityMemories&scope=CommunityMemories&AP=cm_search&tab=Exhibits&formtype=Simple&LANG=English&action=Search&cmTerms=Powering>
(Viewed February 15, 2009).

The first stage of this project created four story lines that the museum wanted to portray; after this was completed a thorough investigation was done into photographs held by the Hydro-X. Due to the number of images required for this exhibit, locating and deciding which photographs to choose was a labour intensive process. As well as looking at the photographs it was extremely useful to read the Manitoba Power Commission's newsletters, which give accounts of the electrification of rural Manitoba from company, government and citizen perspectives. The newsletters contain contextual information that explains why some the pictures were taken by the Manitoba Power Commission. These articles contain information on the placement of poles, wiring farmhouses and barns, and educational seminars on using electrical implements and appliances. The images were chosen to go with the exhibit story lines. Also, the photographs were chosen for their educational value and emotional impacts. For the story line that discussed electrical appliances the Hydro-X member that I was working with and I decided that photographs of the Museum's artifacts were required in order to represent that physical dimension of the stories.⁵

Photographs for the exhibit were also used to evoke memories among residents of Manitoba who remembered the rural electrification experience. Various interviews were held with former Manitoba Power Commission employees and farmers. Photographs were used during the interviews. These photographs became conduits into memories of

⁵Community Memories is aimed at the general public. To my knowledge, Manitoba Hydro's valuable historical photographs have not been used to discuss Hydro in academic work except in Jenara Franklin, "Revelation Hydro Kitchen: My New Electric Range Reveals the Secret of Successful Meals," *Manitoba History* Number 48 (Autumn / Winter 2004-2005).

events in their lives. When showing a photograph of a man climbing a hydro pole to a retired MPC lineman and asking if he remembered doing this, he answered yes with a laugh and offered a story about the tar on the poles and what the men looked like after climbing them:

A lot of the trees were Jake poles, which came out of Riding Mountain.... There was a treatment plant in Transcona: that's where they were pressure treated with creosote and they were black as sin. An interesting part of it is that you would start work in the morning and you were just covered with creosote. A lot of people's faces and arms would skin because it would burn from the creosote. So, we used calamine lotion and that was what would help. You'd look at a guy and think he was half ghost because his face was all white.⁶

The photograph transported the viewer back in time and provided the writer of the exhibit with a new way in which to consider the photograph (Plate 21). As Schwartz says, "photographic witnessing ha[s] a temporal as well as a spatial dimension. In giving immediate and direct visual access to the past.... the photograph serves as...a device of memory, a form of travel."⁷ The interviews that were done with pictorial aids brought the past to life and provided the Manitoba Hydro work with another purpose for its photographs.⁸

⁶Logie Johnson, Community Memories Exhibit. MPC lineman, interview by author, digital voice recording, Winnipeg, Manitoba (October 7, 2004).

⁷Joan M. Schwartz, "'Records of Simple Truth and Precision': Photography, Archives, and the Illusion of Control," *Archivaria* 50 (Fall, 2000), 17.

⁸The interviews that were collected for the Community Memories Exhibit are now being used in a permanent exhibit at the Manitoba Electrical Museum. There is a panel at which the viewer can activate audio excerpts from the interviews.

A fourth example of an area that uses photographs is the Public Affairs Department, Hydro's corporate liaison with the citizens of Manitoba. This department communicates corporate goals and answers questions about the company for customers. One way in which this is accomplished is through the Annual Report, which uses photographs to convey messages to citizens and the governing bodies that regulate the corporation. Although Annual Reports contain much statistical information and other information on Manitoba Hydro, they also make important use of photographs. These photographs are representative of progress the corporation has made that year.

It is important to keep in mind that along with whatever aesthetic value the photograph may have, a bureaucratic transaction is also occurring. When as Schwartz states,

...photographs are an integral part of the means which governments and businesses communicate legislation, implement policies ... and because photographs convey, in a non-verbal way, the ideological context of values and beliefs that inform and animate official policies and practises, they constitute an important interface between institution and individual.⁹

The New Media Officer in the Public Affairs Department articulates the requirements for choosing photographs. She says, "generally photographs are chosen based on the quality of the image and what the image is saying about a particularly significant event."¹⁰

Photographs are selected to illustrate major events that occurred during the year, such as the launch of a new product, the overhaul of a key piece of equipment, involvement in a

⁹Schwartz, "We make our tools and or tools make us'," 53.

¹⁰Anita Mitchell, New Media Officer, Public Affairs Department, Manitoba Hydro, interview by author, digital voice recording, Winnipeg, Manitoba (December 17, 2004).

major building project, whether a generating station or a transmission line, or a response to a major weather event. Photographs that illustrate people at work may also be chosen, particularly if employees were working in a difficult or unusual situation.¹¹

The photographs used in the report originate with the corporate photographer who is commissioned to take photographs at special events. For example, if the corporation wants to do a feature on generating stations, then the files of the corporate photographer are perused to see whether there are photographs of stations. If these photographs do not quite meet the standards, the corporate photographer is asked to go out into the field and retake the photographs. The work done by generating stations may be one of the themes in the Annual Report. The New Media Officer selects the themes of the report. The president of the company approves it. The CEO and the Vice Presidents collectively approve the cover image that is used on the Annual Report.¹²

Analyzing one report -- Manitoba Hydro's 2004 Annual Report -- offers another interesting angle on the use of corporate photographs. The report's theme was customers, whether residential, small business, the large industrial user, or major accounts. The cover of the report had photographs of various customers, and inside the report were pages showing Manitoba Hydro's diverse customer groups and how the corporation aids them with their energy needs.¹³ In an interview with me, the New Media Officer drew attention to a photograph that profiled an agricultural customer:

¹¹Ibid.

¹²Ibid.

¹³Ibid.

There is a relatively young farmer in his cow barn that posed for us. What was unique about his cow barn was that we had helped him install this new lighting technology that Hydro is working on. I guess I just like it because the customer himself is very personable and relaxed and it's a great image because you can see the cows in the background and you can still see our product, but it doesn't right away speak Manitoba Hydro, but there we are subtly in the background. To me that is what we are all about, people don't think about energy or electricity anymore, they just expect it to be there and this image says that to me.¹⁴

The warmth of this person portrays the theme established for the 2004 Annual Report (Plate 22).

Another photograph in the 2004 report displays Hydro's support for community aspirations, in particular those of Aboriginal people. Shamattawa is a very remote Aboriginal community in northern Manitoba (Plate 23). In the picture three Hydro employees shake hands with Chief William Miles of the Shamattawa First Nation, to celebrate that the corporation had just enhanced power service to the area. Just prior to the taking of the photograph, the community hosted a lunch to mark the opening of the new energy service in that area. The photograph was chosen for the Annual Report because it represented corporate and community friendship and cooperation, as the report itself put it, "because all the hands are brought into the centre, so it says, all for one, one for all effort and it really was, because not only Hydro made this happen, but the community as well."¹⁵

¹⁴Ibid.

¹⁵Ibid.

Another revealing photograph from the Annual Report is a Winnipeg winter scene (Plate 24). The photograph was taken from a high rise building near the Assiniboine River looking down at the legislative buildings.¹⁶ It was an extremely cold day in January. With frequent cold spells in the city, this photograph demonstrates to people how significant Manitoba Hydro is to Manitoba's very existence in this harsh climate and to the high quality of life Hydro makes possible despite it.

Clearly, the photographs that are used by Public Affairs convey specific messages to the public. These photographs demonstrate how the corporation wishes to be viewed by the public. As we have seen, the photographs used in this department are generally representations of an operational function. The majority of the photographs is aesthetically pleasing and politically correct. From a records management perspective these important images need to be managed and preserved for both company and public purposes. Indeed, customers often query about and ask for personal copies of them.

While the Public Affairs Department concerns itself with corporate image, the Environmental Services Department within Manitoba Hydro considers corporate impact on the environment. This department uses photographs for specific operational and project studies. For instance when Manitoba Hydro purchased Winnipeg Hydro from the City of Winnipeg in 2002, the "due diligence" process included identifying possible contaminated properties. Manitoba Hydro had six years from the date of purchase to identify these properties in order to limit its liability for any future remediation of the properties.

¹⁶Ibid.

The list of possible properties included: any construction dumpsites and/or landfill sites related to the construction of hydro generating stations on the Winnipeg River system (for example at Pointe du Bois and Slave Falls), the distribution system (for example, the oil-filled underground cable system, and construction dumpsites for generation and transmission line construction), and Maintenance/Operation yards associated with Winnipeg Hydro's generation, transmission, and operation facilities. The Winnipeg Hydro archives photographs supplied a wealth of information on many of these properties. For example, little was known about the underground oil-filled cable system. Winnipeg Hydro archives supplied construction photographs that were invaluable in determining how the system worked, and identifying Manitoba Hydro's potential liabilities to the Corporation. As Schwartz notes, "...photographs are an enhanced form of visual note taking, a tool of observation, and an accurate and reliable means of documentation."¹⁷ From early construction photographs of the generating stations, the department was able to identify potential construction/landfill areas. Early photographs of some of the substations of the City of Winnipeg identified the occupants of adjacent properties which might also be problematic.¹⁸ Subsequent site visits to each of these properties confirmed the information found in the Winnipeg Hydro archives and facilitated the work in completing the studies.

¹⁷Schwartz, " 'Records of Simple Truth and Precision': Photography, Archives, and the Illusion of Control," 11.

¹⁸Gil Goddard, Environmental Services Department, email to author (March 15, 2004)

While the use of archival photographs can be of great benefit to the day-to-day work of a corporation like Manitoba Hydro as this example shows, some of them acquire important new uses over time. Although they may have originally been taken simply to display building techniques, the schedule of construction, and the tools used, photographs such as those used in the environmental reviews discussed above can have a new life within the corporation as much as ninety years -- or more -- after they were taken. And this environmental purpose is only one in which archival photographs have been used to support planning exercises and make physical assessments of the various structures managed by Manitoba Hydro.

The Civil Engineering Department at Manitoba Hydro also makes use of a great number of construction photographs. A Structural Engineer working as a Design Engineer for the Structural Engineering Department of Civil Engineering was interviewed to discuss the uses of photographs in his area. The Design Engineer manages structure renovations and new construction, reviews consultant drawings on new projects, and oversees maintenance of the old generating plants.¹⁹

The Structural Engineering Department uses archival photographs for information needed to maintain and operate older structures. One generating station that has garnered interest is Pointe du Bois, a structure that is now over 100 years old and still producing power. As the Design Engineers notes, archival photographs are used with blueprints:

¹⁹Wayne Flather, Design Engineer, Civil Engineering Department, Manitoba Hydro, interview by author, digital voice recording, Winnipeg, Manitoba., (July 22, 2005).

There have been occasions that there are conflicting drawings – one showing it was constructed like this, the other showing it was constructed like that and the only way to really convince yourself one way or the other is to try to go back and look at the original construction photos and to try to see if you can pick up something on the photos that would indicate how it was constructed or what construction practices they were using at the time.²⁰

In this case, then, original construction photographs are used as evidence of past construction.

As an exercise in reading photographs as evidence, in 2005 I asked a Design Engineer to analyze eleven photographs that were relevant to a current project he was working on at the Pointe du Bois generating station. The Design Engineer's project was to decide whether to retrofit the station, demolish it, or designate it as a historic building. This analysis shows records managers how important it is to see photographs as vital records in what may have been assumed to be unlikely functions: civil engineering.

Plate 25 shows the early preparation for the foundation of the Pointe du Bois Powerhouse area in 1909. This involved intensive labour. Workers used a tool that has an air compress hose hooked up to it, but they had little other heavy equipment to help them. The coffer-dam had a timber frame. Today coffer-dams are made of earth and rock.²¹ In the photograph there is a tripod like structure to one side, perhaps the start of a crude crane that was being used to move the larger rocks out of the excavation.

Plate 26 shows another aspect of the Powerhouse excavation -- the crane used to lift larger rocks out of the area. Some of the workers have handpicks or large steel bars

²⁰Ibid.

²¹Ibid.

to break the rock after blasting. This photograph tells Civil Engineers about the foundation preparation:

This is of interest to us because we are looking at the stability of the dam, specifically the dam actually sliding on the rock. How they prepared the original bedrock is important for us to figure out.²²

This is a photo of a small concrete plant known as a batch plant, where batches of concrete are produced (Plate 27). The batch plant is small, so the output of concrete is limited. When laying out small batches of concrete, a joint is created where the old concrete meets the new concrete.

When we are going through the study and doing the analysis of certain structures. [We need to] keep... in mind that there ... [are] a lot of joints formed by just the way they were placing the concrete.²³

Joints can lead to weaknesses in the foundation. Horse buggies were used to haul concrete. A labourer behind the buggy dumped it into the form. Not much concrete could be made at once. A 1909 vintage mixer and stone crusher were used. On the deck there appear to be bags of cement. A barrel provides the water supply. This photographic evidence of a very basic operation gives the Civil Engineers an idea of the quality of concrete that was produced: "when you look at the structure 100 years later the performance of the original concrete is very poor; it is what you expect from this type of batching process."²⁴

²²Ibid.

²³Ibid.

²⁴Ibid.

In Plate 28 there are four labourers bending and reinforcing steel. There are two pieces of information relevant to engineers here: the type of reinforcement that was being used, which was a square bar, and that it was twisted on site. This reinforcement was going into the wheel pit of the generating station. They had to bend a great deal of steel to this radius to reinforce the wheel pits.²⁵

In Plate 29 in the background there is a structure that is labelled “the crusher”. It was built onsite to crush the blasted rock from the excavation so that it could be used in the concrete:

Adjacent to that is where the concrete batch plant was constructed. You can sort of see right there is the mixer; you can see the end of the mixer there and you can see the rail system that they had set up from that point over to the construction site....In the middle of the photograph is the reinforcement that [the labourers] were bending to form the wheel pit.²⁶

In the photo there is a pile of bent reinforcement that looks like a wave. The engineers found this interesting because in that area of the generating station the apron slab in particular was shown on the drawings: “we probably wouldn’t have believed it had we not actually seen it in the photographs that they did that.”²⁷ The apron is unique to Pointe du Bois. It is underneath the intake of the generating station, similar to a de-watering gallery. A de-watering gallery is intended to reduce the uplift underneath the dam caused by water pressure. Essentially, it is a space under the dam with cavities to drain water out.

²⁵Ibid.

²⁶Ibid.

²⁷Ibid.

In Plate 30 the reinforcement can be seen being placed in the apron. This gives the engineers a view of the type of reinforcement, the twisted square rod, as well as the type of form work the workers were using. The wooden forms still had bark on them. The labourers cut trees in this area to use them for forms.²⁸

As this evidence suggests Civil Engineering has noticed the incompleteness of paper records documenting older generating stations. It has tried to fill the void by using photographs. For newer generating stations drawings and construction records have been produced in greater volumes and housed more accurately.²⁹ Above was a working model of how photographs contain evidential value to the engineers at Manitoba Hydro. These photographs are from an album of Pointe du Bois construction photographs. The initial purpose of this album was to document the process of the construction and the industrial and social progress the generating station represented.³⁰

Another example of the usefulness of photographs is provided by the Power Supply Engineering Department who have organized a Project Management group that works on projects involving protection upgrades (improving safety structures, for

²⁸Ibid.

²⁹Ibid.

³⁰ The Pointe du Bois photograph album can be compared to the photographs taken of the Bloor Viaduct in Toronto, Ontario from 1913-1918. One only needs replace the name Toronto with Manitoba. The purpose of the two sets of photographs is the same. "These photographs," says archivist Anastasia Rodgers, "were taken to monitor public works and activities and to promote Toronto as a place of growth and development. This civic agenda was best achieved using the medium of photography, for no other medium could so systematically represent the progress of the project and its majestic completion." Anastasia Rodgers, "Constructing Beauty: The Photographs Documenting the Construction of the Bloor Viaduct," *Archivaria* 54 (Fall, 2002), 73.

example, a hand rail) and commissioning of safety equipment.³¹ Two categories of photographs are used by the Project Management group: the first is photographs that are being taken regularly to document the normal operating system, and the second is photographs of something that has gone wrong.³² The first type of photograph might be needed for a claim (for example: Workers Compensation) or law suit. The photographs enable the Project team to respond to problems by examining how the structure was built.

Scoping sketches are a type of document used to describe a plan of action that outlines different options. The Project Management group initially marks up a sketch instead of drafting out the work. The group uses photographs to save time that would have been devoted to drafting and reading the document. A scoping sketch is created before a project plan and the project plan is created using the scoping sketch. For example, a scoping sketch was created for the Slave Falls sluiceway lifeline project in December 2004.³³ Below are the steps that the Project Management group took in their work. Manitoba Hydro hired consultants to draft a memo describing the problem and to propose a solution. These memos are project management templates that include the photograph of the problem with bracketed text and 'add-on structures' on top of the photograph. These photographs with the information drawn on top replace drafting drawings at this stage of the project. Plate 31 is an example of a photograph from one of the generating sites that displays a safety concern that could be addressed with the

³¹Jim Langdon, Power Supply Engineering, Civil Engineering Department, Manitoba Hydro, interviewed by author, digital voice recording, Winnipeg, Manitoba., (November 14, 2005).

³²Ibid.

³³Ibid.

construction of a hand rail. Word Art from Microsoft is used as a fast and efficient means of adding information layers to the photographs regarding what work could or should be done.³⁴ These memos are then saved as non-modifiable PDFs. Since there are various possible solutions to the problem different options are offered. By placing information on top of photographs the corporation is saving drafting time and improving communication, as the photograph is easier to read than drafted plans. The scoping sketch enables a project to be developed and scheduled for completion.

Within the Civil Engineering Department there is a Dam Safety group that monitors and inspects generating station structures, to ensure they function safely and efficiently. Dam Safety not only protects the public and the environment, it also plans and carries out maintenance work. This function also involves geotechnical surveillance of earth dams and dykes.³⁵ Dam Safety uses photographs to inspect the integrity of physical structures. Photographs accompany all inspections and provide information on the current condition of the structure that can be used to compare conditions from previous years and monitor deterioration:

A large amount of the photographs are areas where there are concerns or problems and we try to take the same type of photograph each year, same angle, to give a good perspective that if things have changed, you should be able to pick it up.³⁶

³⁴Langdon, Power Supply Engineering, interview.

³⁵Ed Chambers, Greg Ferguson and Terry Armstrong, Dam Safety, Civil Engineering Department, Manitoba Hydro, interview by author, digital voice recording, Winnipeg, Manitoba., (November 4, 2005).

³⁶Ibid.

In order to demonstrate any changes in the physical structure Dam Safety produces an annual report with photographs that document particular structures. These photographs are taken at about the same time every year and at the same spot. As a result, a visual historical record is being created and used to monitor physical structures.³⁷ This creates an important body of photographic evidence that requires sound records management.

Historical photographs are often used when an assessment of a structure is underway. These photographs allow the viewer to see how the structure was built and to see signs of problems. For example, a photograph of the structure when it was built and jointed, or the surface preparation of the site, allows the viewer to see what kind of quality control went into the original construction. The nature of concrete structures is determined by when they are built (including the time of year) and how they were built, (including the material used). This determines what Dam Safety has to maintain for both earth and concrete structures. Dam Safety views photographs as important evidence of the past: "... the pictures are a thousand words, so they are gold to us."³⁸ Photographs demonstrate various construction techniques and provide knowledge of how these structures currently perform.

³⁷Much like Dam Safety's use of historical generating station photographs, a group of scientists at the Mountain Legacy Project/Rocky Mountain Photography Project have been using historical phototopographical survey images held at Library and Archives of Canada. The group compares historical photographs of the Rockies with current photographs it takes of the same subjects in order to conduct studies of the environmental change. See Jill Delaney, "An Inconvenient Truth? Scientific Photography and Archival Ambivalence," *Archivaria* 65 (Spring, 2008), 76. As well, the project has an interesting website where you can view some of the photographs. Mountain Legacy Project, "Mountain Legacy Project," <<http://mountainlegacy.uvic.ca/about>> (Viewed, April 21, 2009).

³⁸Ed Chambers et al, Dam Safety, interview.

Condition Reports are written about generating stations under investigation. The Seven Sisters Condition Report is interesting as it states that the different seasons when the construction took place are important to consider in monitoring the structure's safety. For the north spillway, concrete that was poured in the winter is standing up far better than concrete that was poured in the summer.³⁹ The main reason for that, as far as Dam Safety can determine, is that the builders increased the cement content in the concrete in winter to make up for the poorer conditions outside. As a result, these structures have held up better to the extreme freezing and thawing of Manitoba's weather. This information was derived from careful study of photographs and some textual reports.

Information from historical photographs influenced all the anchoring that was done at Seven Sisters in the mid 1990s. Manitoba Hydro's generating stations are gravity structures. It is possible for engineers to determine out how big and how heavy these structures need to be to resist the load. Seven Sisters had some stability deficiencies that were addressed in 1994 by drilling holes through the structure into the rock and then putting in long pieces of steel that would be fixed into the rock. Extensive research was done on the configuration of the structure so that Dam Safety would anchor the structure only where it was required. Photographs documenting the history of the construction of the structure provided much of the information used in this project. Drawings were consulted but photographs were considered a more reliable record by the group. In the case of the Seven Sisters anchoring project, a few of the historical photographs are shown here to illustrate their importance. Plate 32 in particular shows the typical shape and

³⁹Ibid.

nature of the bedrock surfaces the structures rest on. This affects the stability calculations used to configure the anchors.⁴⁰ The next photograph (Plate 33) shows the south non-overflow dam partly constructed, and how the ends of the individual blocks of the structure are keyed into one another. (Look slightly above the centre of the photograph.) The keying affects how the blocks interact structurally with one another and therefore their stability.⁴¹ After studying the site and the background contextual information, design drawings were created for the anchoring work.

Dam Safety also investigated a structural concern at the Grand Rapids generating station. The group was asked to determine if the rock-fill on the back of the intake was moving downhill or not. The rock-fill was placed to increase the self-weight of the intake in order to compensate for some slippery joints discovered in the bedrock underneath this part of the dam during construction. The Dam Safety group examined drawings and a number of photographs to assess the situation and then reported back to Generation-South Department. Plates 34 and 35 show two of the photographs that were used in the assessment. The photographs were located in the abandoned photographic filing system in their building.⁴² These photographs display the rock-fill in 1964. In order to assess any changes in the structure, photographs of the site were retaken in 2000. A photograph from 13 July 2000 that aided the comparison of the rock-fill is shown in Plate 36. After

⁴⁰Manitoba Hydro, Civil and Geotechnical Departments, Generating Projects Division, *Seven Sisters Generating Station, Reference Volume-Concrete Construction and Concrete Repairs*, (Winnipeg: Manitoba Hydro, November 1975).

⁴¹Ibid.

⁴²This photographic collection was subsequently moved to Manitoba Hydro's Records Management Section.

the preliminary investigation was complete a report was submitted to the Generation-South Department in Civil Engineering that discussed observations and conclusions. Photographs were used in a report as a visual aid in interpreting the problem. Thus photographs helped again to resolve an engineering concern.

As Manitoba Hydro structures age they show their deficiencies. The Dam Safety group spends a great deal of time on monitoring all structures. The old ones take up a disproportionate amount of time because they have more problems, both because the technology used when they were built is not as good as today's, and because they also have been exposed longer to the weather. Although, the more modern structures were produced with better construction methods and materials, problems will still arise in the future and photographs will have to be examined to help solve them. Dam Safety engineers remark that "the stuff that is not sexy or glitzy or whatever... will [still] tell you if the seepage changed from five years ago to today."⁴³ Sometimes seemingly ordinary technical photographs are very useful for reasons that were not part of the initial intentions behind their creation, illustrating, as Schwartz states, that "photographic images are decontextualized and recontextualized into photographic documents and in the process assume new functions and acquire new meanings within new contextual configurations."⁴⁴ Alternatively, the viewer might be interested in something in the background of a picture and thus the function of the photograph changes as in the following example:

⁴³Chambers et al, Dam Safety, interview.

⁴⁴Schwartz, "We make our tools and or tools make us'," 50.

Grand Rapids, where when they started building the powerhouse, they discovered some joints in the rock that were full of clay which makes the joint a little bit slippery. The original design of the powerhouse would not have been stable with these joints that they found so the solution was to put a bunch of rock on the back of the structure to make it heavier, using gravitational force to make it more stable, given these joints were there. We [Dam Safety] got into a debate a couple years ago whether that rock was moving, going somewhere, and we ended up finding some pictures down the hall, just general shots of this nice new powerhouse that was under construction, but hey, you could zoom in on this thing and see where the rock started and where it is today. And do some sort of an analysis to see if this thing is really going somewhere and where and why.⁴⁵

This photograph demonstrates the value of historical images in maintaining important structures at Manitoba Hydro.

Photographs of various kinds and ages – the seemingly ordinary and not “sexy” ones, and those kept mainly for aesthetic or symbolic purposes such as “the pictures located down the hall” or those found in an old near forgotten filing system can be crucial to Hydro. This points again to the importance of sound records management and archival preservation of photographs as documentary evidence. To achieve that we must discuss the current organization of photographs at Manitoba Hydro, which is the subject of the next chapter.

⁴⁵Chambers et al, Dam Safety, interview.

Chapter Four

The Present Organizational State of Manitoba Hydro Photographs

This chapter will discuss the current organizational state of a few representative examples of Manitoba Hydro photographic collections. The photographs that will be examined are: those inherited from the Public Relations Department of Winnipeg Hydro when it was merged with Manitoba Hydro; those in the custody of the Manitoba Electrical Museum Incorporated; and those with Public Affairs, Records Management, and Civil Engineering in Manitoba Hydro. Each area has its own system for managing photographic records. Each will be analyzed in accordance with four concerns: 1. the approximate number of photographs in the collection; 2. the physical storage of the images; 3. the quality of the description of the images or surrounding contextual information about them; and 4. the accessibility of the images. The appraisal strategies of the areas studied will be discussed where applicable. Both digital and paper photographs will be discussed since in 2002 digital photographs began to replace paper-based ones at Manitoba Hydro.

The body of photographs that was in the custody of the Public Relations Department of Winnipeg Hydro has two parts: the corporate photographs that were in current use at Winnipeg Hydro and the archival collection.¹ The current photographs range in date from the 1970s to 2001 and were located at Winnipeg Hydro's Head Office. The photographs were stored in two offices and a boardroom. They were stored in

¹These photographs are currently in the custody of the Records Management section of Manitoba Hydro.

drugstore variety photograph albums and in the developer pouches. Description of them was very limited. The label on the album had a date and a title if the photographs were of a special event. On some images a date and name of a person might be recorded. The developer pouches had no descriptive information beyond the date the film was developed. Access was controlled by Public Relations staff. It was time consuming to find a specific image, as numerous pouches of photographs and albums had to be pulled out of storage and viewed.

The Winnipeg Hydro Archival collection was handled in a different manner from the current photographic collection. The Archival collection numbered approximately 20,000 images and ranged in date from circa 1903 to the 1960s. About a third of the photographs are in albums. A substation is an industrial building that controls electricity to a designated area of the city. This location housed all the historical information on Winnipeg Hydro: artifacts, textual records, advertisements, newspaper articles, and, of course, photographs. The photographs were in a room in the back of the substation in metal filing cabinets.

Description was minimal for the archival photographs. It consisted only of what was originally recorded. Nothing had been added since. Some photographs had dates and lists of people's names. Others had no description at all. A few of the early construction albums had quite thorough descriptions of the event that the photograph portrayed.² Accessibility was controlled by Public Relations, but a security clearance was required to examine these images. Access was adversely affected by their out-of-

²The Archival Collection of Winnipeg Hydro was in good physical condition. It is evident, however, that over the years photographs had been removed and not returned.

the-way substation storage location. And the limited descriptions made finding the photographs quite labour intensive.

In 2000 Winnipeg Hydro decided that its historical records should be catalogued. A procedure manual was written to enable standardized control of all the historical material.³ This manual was later used for the current photographic collection. The descriptive elements developed for the photographs were drawn from the *Rules for Archival Description*. The following six descriptive fields were established for cataloguing photographs: 1. reference number; 2. title; 3. date of the photograph; 4. name of the photographer; 5. physical description; and 6. subject matter or scope and content.⁴ A reference number is a unique number given to photographs and negatives for identification purposes. The reference numbering system devised for Winnipeg Hydro combined both letters and numbers, for example: PR.P.1.1 or PR.N.5.30.⁵ The abbreviation definitions are as follows: PR (Public Relations), a 'P' for print or 'N' for a negative, album number, and finally each photo in the album received an item number.

The second field is the title of the photograph. The third is a date given to the photograph that is as exact as could be possible. For example: October 23, 1960, February 1957, Spring 1985, or Circa 1968-1972.⁶ The physical description was of the photographic process, and the different sizes or peculiar physical features of the

³Jenara Franklin, Winnipeg Hydro, *Collection Management Procedures Manual for the Archives* (May 8, 2001). Although this manual dealt with a variety of materials I will only be discussing the photographs.

⁴Jenara Franklin, *Organizing the Winnipeg Hydro Public Relations Department Photographic Collection*. (July, 2001).

⁵Note that if there is both an original print and negative, they both have the same number but are differentiated by the 'P' or 'N'.

⁶When possible all dates must be recorded in the catalogue as Month, Day, and Year.

photographs such as, colour print, or 4 inches x 6 inches. The scope and content section provided a description of the subject matter of the photograph. The name of the photographer or studio was also included. If the name of photographer is unspecified, it was recorded as Photographer Unknown. In order to establish administrative control of the photographs three forms were created: a Separation form, for when an image was removed for duplication, a Reproduction Request form, and a Description form.

Once these controls were in place, InMagic database was purchased in order to record and digitize the photographs. An area for the description of photographs was created in the database, accompanied by a place for a digital image to be displayed. The database was to allow efficient searchable access to corporate imagery. It was formatted and ready for use when Winnipeg Hydro was sold to Manitoba Hydro. This system was then discontinued. The Winnipeg Hydro current and archival photograph collections were placed in the custody of the Records Management section of Manitoba Hydro in 2006.

The Hydro-X Incorporated is a group of Manitoba Hydro retirees who look after the Manitoba Electrical Museum collection of photographs, artifacts, and textual records. The museum collection of photographs dates from the early 1900s to around 1970. The number of photographs in the collection is approximately 200,000. Currently, the Hydro-X photographic collection is physically located in a trailer outside a Hydro office building.⁷ The photographs are stored in binders, albums, and folders and housed in boxes or metal filing cabinets.

⁷There is discussion with the Public Affairs Department of moving these photographs to the new Manitoba Hydro head office in downtown Winnipeg.

The Hydro-X have created a four level subject/title index with a numeric code organizational structure for photographs. The first descriptor is by subject. The subject groups are as follows: Generation Hydraulic, Generation Thermal (wood, coal, oil, gas fired), Transmission Lines, Sub-transmission and Distribution Lines, Terminal Stations, Substations and Distribution Stations, Street Railway Substations, Communication Facilities, Gas Generation and Storage Plants, Special Utility Equipment, Personnel, Administrative Facilities, Promotional Photos and Events, Electrical Equipment- Historical Pieces and Historical Events.⁸ The second descriptor is a subset of the main subject and is one of the following: name of place, building, and/or piece of equipment, or an event. An example for the subject is Generation Hydraulic, with the second descriptor as the Brandon Hydraulic G.S, or Grand Rapids Hydraulic G.S, etc.

The third descriptor is numeric. Each of the second-level descriptors were given a numeric code. These numbers run from 1 to 301. There is the possibility that they will increase over time. The numeric codes are random identifiers. For example, number 1 represents the Assiniboine Thermal G.S (22 kilowatt, date 1891 to 1984, or 559 kilowatt, date opening 1895 to 1916), and number 301 is the East Selkirk Station. The fourth descriptor is a unique reference number that follows the numeric code, for example '6 - 17,442' stands for a photograph of Pinawa that is the 17,442th photograph in the collection. This is the basic control system that the Hydro-X use in managing the Manitoba Electrical Museums photographs.

⁸Hydro-X Incorporated, *Manitoba Electrical Museum Photographs/Negatives/Slides, Etc. Filing System Subject/Title Index- by Categories* (May 2, 2003).

The system promotes basic administrative control over the photograph collection. When Hydro-X receives photographs an index card is filled out for each one. The index card has the following fields: subject, sub-subject, photograph number, donor number, file location, photograph date, cross references, and description.⁹ This system resembles the paper-based card cataloguing systems used in libraries. The index card is filled out to the best of the cataloguer's ability.¹⁰ In order to fill out the information required on the index card there are two informational notebooks. One contains subject information and the other available reference numbers. The completed index card is filed with the photograph. The numeric references are printed on the back of the photograph. The image is then placed in an envelope with the reference card and placed in a filing cabinet.

To access this photographic collection the Hydro-X must be contacted and a visit to the trailer is arranged. A basic index in the holdings is available in the notebook. It allows photographs of interest to be located. In 2009, the Hydro-X will begin to digitize the photographic collection in order to make it more accessible.

The Public Affairs Department of Manitoba Hydro has a professional corporate photographer who creates and manages photographs. It is not clear how many photographs are in the custody of this department, but photographic assignments can result in hundreds of images:

⁹Hydro-X Incorporated, *Photograph Index Card* (May, 2003).

¹⁰Archivists could ask whether the descriptive title that the Hydro-X uses to label these photographs really reflects why the image was taken, or does it superimpose supplemental information onto the photograph.

A specific example of a job was the re-photographing [of] the Jenpeg generating station. There were approximately four hundred photographs of interiors and exteriors. Out of the four hundred photographs there were about a hundred that were considered good renditions.¹¹

This department has both paper and digital images.¹² When the corporate photographer is asked to take photographs by areas other than his own, he is not responsible for the filing and maintenance of the photographs he takes. That is the responsibility of the requesting area and not the image taker.¹³

Before 2002 the corporate photographer had a paper filing system based loosely on subjects for photographs under his control used in annual reports. These photographs were filed according to the report in which they were published. The format of these photographs is 35mm slides and negatives and they were stored in binders. A formal naming convention was not used but the photographs were given a job title and some binders had dates. In 2002 a new corporate photographer was hired and the previous filing system was not continued. These binders of photographs were sent to the Records Management Section for storage and the pre-2002 Public Affairs photographs were entered into the Records Management database under the binder name for retrieval purposes. Currently, the Public Affairs Department has a small paper photographs collection in hanging filings, but they have truly moved to digital format.

¹¹Mario Palumbo, Corporate Photographer, Public Affairs Department, Manitoba Hydro, interview by author, digital voice recording, Winnipeg, Manitoba., (October 4, 2004).

¹²Ibid.

¹³Ibid.

In 2002, Public Affairs began to use digital photography. Additional equipment was required to manage these records: a digital camera; a database system; a server. The camera chosen was the Kodak Pro 14 system. It is a DSLR, or digital single lens reflex. It looks like a 35mm camera, and it accepts all the Nikon lenses.¹⁴ The server is used to store the photographs and the electronic database chosen was Portfolio from Extensis.¹⁵

To provide contextual description to the digital photographs in the Public Affairs Department, its database has prescribed description and keyword fields:

Name of image: name/object reference
 Business Unit: Generation/Distribution/Customer/Corporate/Other
 Date of Image: Year, Month, Day
 Photographer: name of photographer
 Reference: code for negative/positive/proof
 Image file name: year, month, alpha.tif¹⁶

The above are the mandatory database fields must be filled out properly to ensure the context of the creation of the photograph is accurate. Keyword fields to aid retrieval are:

Timeline: current/historical
 Animal: species
 Business Unit: Generation/Distribution/Customer/Corporate/Other
 Elevation: aerial/elevated/ground-level/lookup
 Historical: place/event/situation
 Name of Image: name/object reference
 Personnel: name/occupation/department
 Position: interior/exterior
 Publication: name of publication

¹⁴Ibid.

¹⁵Jeff Keeler, Graphic Support Specialist, Public Affairs Department, Manitoba Hydro, interview by author, digital voice recording, Winnipeg, Manitoba., (October 5, 2004).

¹⁶Jeff Keller, Graphic Support Specialist. *Manitoba Hydro Image Management Database Outline*. (February, 2003).

Season: spring/summer/fall/winter
Special: scenic/sunset
Time: morning/day/evening/night¹⁷

It is recommended that at least one of the keyword fields is completed. These alpha indicators are broken down by Business Unit and other descriptors. Two examples are as follows: under Generation (for Business Unit) would be 'bga' - Brandon Generating Station and; 'coa' - Conawapa Generating Station. For Other, 'ana' - Animal and 'sca' - scenic.¹⁸ These are a few of the alpha suffixes, which allow the cataloguing of numerous photographs taken by the corporate photographer on a daily basis.

Aside from the digital photographic management system that the corporate photographer is using, there is another central database called the Corporate Image Bank that stores photographs. The images it contains are currently available to Hydro staff via MPower, the company's intranet. There are approximately 180 photographs in the corporate image bank.¹⁹ These are stock photographs of generating stations and wild animal photographs to name a few. They are organized by subject. There have been discussions of having all of the Public Affairs photographic collection on MPower, but no decision has yet been made.

The Civil Engineering Department also is an important manager of Manitoba Hydro photographs. When this department works on rehabilitation projects it takes on

¹⁷Ibid.

¹⁸Jeff Keller, Graphic Support Specialist, *Alpha Descriptors* (2003).

¹⁹Keller, Graphic Support Specialist, interview.

average between 400 and 500 photographs.²⁰ If it is working on a constructed dam, this number would be much smaller. Civil Engineering will search throughout the corporation for relevant photographs for a rehabilitation project, for example. Once these images are located they are scanned and saved on a shared-drive that everyone on a project has access too. For the Pointe du Bois rehabilitation project, the photographs were scanned in as jpegs. The naming convention used reflected the photograph albums that the photographs were originally housed in, and the text that was written on the photograph and the dates are gleaned from either the album or specific photograph and incorporated to create the filename.²¹ One example of a file name is, 1-1909pg31a_jpg, this translates to Album 1 from the date 1909, photograph located on page 31, "a" is the first photograph on the page and it is saved as a jpeg image type. This provides some control over the photographs, but it is still necessary to view every photograph in order to find the specific photograph required. This is a small example of just one aspect of rehabilitation project's management of a photographic collection.

Another key area in Manitoba Hydro that manages photographs is Power Supply Engineering. It has an electronic file, much like a generic binder of photographs, but nothing is catalogued. The naming convention currently used is the automatic numeric jpeg that comes from the digital camera.²² There is no standard description of the photographs or any word document that contains contextual information. One staff

²⁰Flather, Design Engineer, interview.

²¹Ibid.

²²Langdon, Power Supply Engineering, interview.

member remarks, "Sometimes if we are taking the images, we will have the date.

So we are looking at Lighting in 2005. The only reason why we did that is because we knew we needed to use these."²³ This quote suggests that the only reason that an electronic file was created for these specific lighting photographs was because the area knew that it would use them in the future. It is not clear how many photographs the Power Supply Engineering area has in its photographic collection.²⁴ There is no readily predictable number of images taken on a given project. It depends on what is being studied.

The Project Management group in Engineering also does not have a concise way of organizing its electronic photographs at the present moment. They are placed in directories on a Shared-drive, Personal-drive or Hard-drive under a subject, such as Kelsey generating station, which has a directory of photographs.²⁵ In order to locate a photograph the user must flip through different directories, which can be like looking for a photograph in an album. Aside from subject-based directories, photographs are sometimes labelled and filed under the photographer's name.

The current methodology in the Project Management area means that the group is willing to spend time in finding the photographs, rather than investing time in organizing the photographs.²⁶ Employees are taking photographs but not being told how to name or

²³Ibid.

²⁴Ibid.

²⁵Allan Desserre, Project Management Group, Civil Engineering Department, Manitoba Hydro, interview by author, digital voice recording, Winnipeg, Manitoba., 28 November 2005.

²⁶Ibid.

store them.²⁷ As well, appraisal of photographs is not conducted and all photographs are kept. The Project Management group in Engineering is reviewing how it is organizing photographs in order to improve its methods.

In contrast to the above area, the Dam Safety Section does have an organizational system to manage its photographs. Dam Safety uses a digital camera to capture photographs. There is not a designated photographer for the area and typically on any given day there are three cameras being utilized. There is no current count of the number of photographs in the area's custody. Dam Safety uses other department's paper photographs when required. For direction on what photographs are required, the area uses the previous year as a guide, "quite often as to what pictures we want to take on a certain inspection and we will follow the same every year, "we will take the pictures out and line them up beside the current condition, make ... notes and go from there."²⁸

The historical photographs used by the Dam Safety group are located throughout the corporation. Some are with the Hydro-X, at the museum, the Records Management section, the abandoned paper photograph collection stored in the building where the group resides, and some images are in reports and original condition surveys.²⁹ Dam Safety not only uses original photographs but also those in Hydro publications. Usually the original photograph cannot be located. The photographs used by this group are scattered and require an investment in employee time to locate them.

²⁷ This is a common occurrence throughout the corporation as there are no guidelines on how to efficiently manage photographs.

²⁸ Chambers at al, Dam Safety Group, interview.

²⁹ Ibid.

Dam Safety's now obsolete paper photograph filing system contains between 40,000 and 50,000 engineer photographs. It is used by Dam Safety on occasion for construction and reconstruction projects. This photograph collection was well organized. A log was kept on each item. Each photograph has a reference number and was kept along with the corresponding negatives and a contact sheet. The photographs were described with the: location; date; and structure or building. In December 2008 Dam Safety staff entered these descriptions into an Excel spreadsheet. These photographs were then transferred to the Records Management section and the Excel spreadsheet was downloaded into the Records Management sections database.

The current digital photographs that Dam Safety takes are stored on the area's Shared drive in folders labelled under the name of a specific facility such as a generating station. Within this facility folder they are subdivided again by the date (primarily by year).³⁰ This system seems to meet Dam Safety's needs at the moment. However the area must have a working memory of past projects and when they occurred to enable speedy retrieval of a photograph, because the system is not searchable through keywords or special file names.

The Earthen Structure section of the Dam Safety group uses a similar filing and description procedure, with one notable added feature -- a database. In 2004, additional description was added with the purchase of software that links photographs with GPS coordinates.³¹ The photographs are stored in a software package called Picport. They are

³⁰Ibid.

³¹Ibid.

filed by year. For example, all the photographs created in 2004 are kept together.

Aside from photographs Earthen Structure retains all contextually related documents, such as drawings. These are also located on the area's Shared-drive.

The Picport database has a split screen. On the left half is a drawing or map and on the right-hand side is a photograph (Plate 37).³² When the icon on the drawing is clicked it will bring up the related photograph. The icons are colour coded dots. Red means settlement. Blue means seepage. These are just two of the classifications that have been created by the area. Each structure might use different aspects of the classification system.

The photographs are used while on inspection work. A laptop is taken in the field. When the inspectors arrive at a specific structure, a past photograph of it can be called up. This enables Earthen Structures to view the current structure and a past photograph of the structure. After making the comparison the group will take a new photograph and record any comments about the structure in the database. The inspectors will note whether there is a change that could be a cause for more monitoring.³³

Appraisal of photographs is not currently done by Dam Safety. All its photographs are kept. The ease of use of digital cameras means more photographs are being taken. This rising volume is leading Dam Safety to wonder whether there "might be a time that we will have to sit back and think, do we need all of these pictures and

³²Ibid.

³³Ibid.

come to a consensus to get rid of some. But right now, we haven't done that. We keep them all."³⁴ This is a common practice throughout the corporation.

In 2006 the Records Management section began receiving corporate photographs for storage. Before then photographs stayed with their creator, were donated to Hydro-X, or were abandoned.³⁵ A variety of departments place their textual records and photographs in the Records Management section's custody. They expect that these records will be easy to retrieve when needed. Currently Records Management provides basic guidelines on their management and a form that must be filled in when an area submits records. The form enables the collection of information required to be transferred to the database. The form records both box and folder level information. The box information is very high level: what area owns the box; account information; date range; and subject. For the more finite folder level some information is taken from the box level but other information is also collected: name of department, individual name of submitter; department accounting number; folder title (which is the content descriptor, such as an album name); folder dates; notes (contextual information or reference terms could be placed here). This information is then recorded in the database that is also used to identify and locate all paper records submitted to the section in order to enable their speedy retrieval. Records Management currently houses over 300,000 images and this number grows on a daily-basis.

³⁴Ibid.

³⁵The first large collection that Records Management received was the Winnipeg Hydro Archives. The next large collection was the abandoned photograph collection mentioned in chapter three.

The majority of departments in Manitoba Hydro make and have photographs. The recent arrival of digital photography encourages such widespread use because it is inexpensive and easy to use. If the departments do not have their own camera then the corporate photographer may be booked or another department's camera may be borrowed and used to capture an event or moment. There is no corporate record of which departments own cameras. This reflects and facilitates the spread of decentralized management of photographs within the corporation and raises some concerns about how well they are managed. The number of photographs in each area is not known. A corporate inventory needs to be done. As this chapter suggests, some parts of the corporation have implemented a basic management system for their photographs. Other areas realize that there are needs to be addressed and are looking for guidance to manage their photographs. Yet other areas are not seeking corporate guidance, do not realize there is a problem, and continue to take more and more photographs. Yet, Manitoba Hydro has made significant strides in dealing with overall Records Management issues through WorkSmart. Chapter five will make recommendations on how this new foundation for records management might be used to address the corporation's remaining records management needs for photographs.

Chapter 5

The Changing Face of Records Management at Manitoba Hydro

Chapter five will demonstrate how a records management program can provide the backbone for effective management of Manitoba Hydro's photographs. Records Management "is the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records."¹ This chapter considers: enhancing intellectual control of photographs; implementation of an organized filing system; formal means of classifying photographs for retention purposes; and a better method of description of contextual information for access to and interpretation of the photographs. The proper physical environment for storage of photographs and conservation measures are briefly discussed. It should be noted that photographs are a type of evidence and must retain links to their context and provenance so that they remain as useful as possible to the corporation. Finally, creation of a database for electronic control and easy viewing of the images will be discussed. In summary, chapter five discusses the creation of a comprehensive records management program that will enable images to be linked to their context of creation.

In autumn of 2006 the WorkSmart project was officially launched to promote the management of textual and electronic records at the new downtown Manitoba Hydro

¹ISO 1549-1:2001, 3.

building.² Records Management's first step under the WorkSmart project was to formulate a strategy to enable Manitoba Hydro to become compliant with ISO 15489.³ This strategy had five steps: i) create a records retention and classification schedule using the functional analysis approach; ii) perform a TRIM (Toss, Recycle, Information Management); iii) approach the departments that would receive File Implementation (create a File System) and perform that action; iv) implement a new database for managing paper records that are sent to the Records Management Section for storage; and v) deliver a content management/electronic records management system to manage digital records. In so doing Records Management has created a strong records management base for successful systematic management of Manitoba Hydro records. Although this new Manitoba Hydro Records Management program has not touched in any great depth the photographic image, a foundation now exists on which images can be managed efficiently.

I will now discuss the WorkSmart project in more detail, and its relevance to managing photographs. The first phase of the project, creation of the Records Classification and Retention Schedule, involved creation of a hierarchical list of all Business Units, Divisions, Departments, and Sections within the corporation. This provided a high-level view of the many and various functions carried out by the corporation. In order for the Classification and Retention Schedule to reflect business

²I was the records management representative on the WorkSmart project. I co-wrote the project plan, formulating the goals of the records management area. I oversaw the work of the records management consultants who were hired for this project. I gave over 100 presentations about records management to employees, led meetings, and talked to areas that were directly affected by the records management aspects of the WorkSmart project.

³From now on the term 'WorkSmart' will be used to refer to the Records Management section.

functions and activities, it is mandatory that the schedule be "...devised in consultation with the records creators."⁴ Interviews were therefore done with Hydro employees who are knowledgeable about the importance of managing records created and stored in their areas.

These interviews provided information on the different record series created and stored in departments. The employees were asked a broad range of questions: "what is your area's function?", "what activities do you do in this area to achieve these functional goals?", "what documents do you produce out of these activities?", "how many of these documents do you produce and what are they titled?", "do these documents house any sensitive or personal information?", "are they vital to the corporation?", "how long are you keeping these records and in what media are these documents created or kept in?". These questions were repeated for each record series in a given area.

At the end of each interview the record series were briefly physically reviewed for a file count and to ensure that nothing was overlooked. During some of these interviews photographs were mentioned by, for example, the Public Affairs Department and in a few of the Civil Engineering areas. ISO 15489-1:2001 discusses how such interviews can be used by a records manager to collect and identify the information needed in order to design a classification and retention schedule.⁵ The interviews were the first stage in creating a strong records management program at Hydro.

After the interviews were completed and all the data compiled, meetings were held with both external consultants and the Records Management staff in order to build a

⁴ISO 15489:2:2001, 10.

⁵ISO 15489-1:2001, 10.

classification code system. After much debate Hydro's Records Classification and Retention Schedule was born. As ISO 15489-2:2001 states,

The systems derive their terminology from the business functions and activities, not the names of organizational units. And they are specific to each organization and provide a consistent and standard way of communicating across organizational units sharing the same information for interrelated functions.⁶

In any corporation there is constant re-organization of the administrative structure. If the classification and retention schedule is tied to the constantly evolving structure it will become very difficult to implement.

Hydro's Records Management Schedule consists of twelve function-based primary classification codes (such as "AD - Corporate Administration") and 112 secondary classification codes (such as "AD01 - Activity Tracking"). Under each of the twelve primary codes there are between one and fifteen secondary codes. For each primary classification a high-level description of the function is recorded. These definitions are to aid the user in thinking about the function and purpose of the document they are classifying. Once this marker is established the user then considers the secondary classification codes in order to find the activity within a function that this document is supporting. To help users at this stage, there are three paragraphs of explanation within the secondary classification area. Paragraph one gives a description of what the secondary classification code means. The second paragraph provides examples of document types that are found in this secondary code. The third paragraph provides a list of documents that are excluded from this secondary code and shows the

⁶Ibid., 10.

user where he/she should be looking for them in the Records Retention and Classification Schedule (Plate 38).⁷

There are other reference points that are important for the management of information on the Records Retention and Classification Schedule: the 'owner' of the records (or areas responsible for their control) and the retention period for the records are listed. There are four types of retention codes at Manitoba Hydro: 1. UOS (until obsolete or superseded); 2. C+year (current plus year); 3. E+year (event plus year); and 4. P (permanent). There is a Remarks field, which shows any special retention information. This usually pertains to event-based retention and provides an example of what the event was about. For example, an event could be the end of a contract or the decommissioning of a generating station.

There is a field for Sensitivity level which indicates whether the record contains personal information that is related to the Freedom of Information and Protection of Privacy Act (FIPPA), Personal Health Information Act (PHIA), National Energy Reliability Corporation rules (NERC), or the American Federal Energy Regulatory Commission (FERC) (an agency that regulates the interstate transmission of electricity, natural gas, and oil). Finally, there is a field for Vital Records, or documents that contain information required by the company to maintain basic operations. The Records Classification and Retention Schedule enables all Hydro's records to be classified regardless of media type. It provides a broad foundation for records management for photographs and all other records at Hydro.

⁷The Plates section provides a hypothetical example of a specific Class Code in the Records Classification and Retention Schedule. Plate 38 is to be used as a visual aid when reading chapter five.

The legal basis for the Records Classification and Retention Schedule is provided by the Retention Citation Table. This document relates all Acts or Regulations governing Manitoba Hydro to specific classification codes and what these legal records state concerning the length of time that records need to be kept. A classification and retention schedule must reflect the legal framework undergirding it.⁸ Two other key elements of a records management system that need to be built into a schedule are retention periods that reflect how long the corporation needs to use records in decision making, and which records are archival.

The second step in the WorkSmart project was to perform Toss, Recycle, Information Management (TRIM). This involved removing non-active corporate records from employee work stations and transferring them to the Records Management section for cataloguing and storage. TRIM focused on the records of the approximately 1,800 employees who were moving to the new downtown building.⁹ Among other records, the Records Management section received photographs for storage from this phase of the project. Duplicate, obsolete, and non-record material was shredded. Non-record material can be defined as "...records...that do not commit an organization or individual to an action, document any obligation or responsibility, or comprise information connected to the accountable business of the organization."¹⁰ The end result of TRIM is that employees were left with relevant and active records at their desks. They were also

⁸ISO 15489-1:2001, 11-12.

⁹The objective is for the whole corporation to undergo TRIM.

¹⁰ISO 15489-2:2001, 14.

provided with their first exposure to the new wider role for Records Management at Hydro and to the new Records Classification and Retention Schedule.

The third phase of the project was called File Implementation. In this phase new paper filing systems using the Records Classification and Retention Schedule were created. This is also called Record Capture in the ISO standard: “The purpose of capturing records systems is to establish a relationship between the record, the creator and the business context that it originated in, place the record and its relationship within a records system, and link it to other records.”¹¹ Not every area in Hydro that underwent TRIM proceeded to this third phase. Records Management determined that an area would receive a new filing system under File Implementation if it contained vital records or created more records than most other areas.

The first stage of File Implementation involved gathering basic information about where an area’s records were located and who controlled and used them. The WorkSmart team sought this information from those who best understood the different functions and uses of their records. This group not only included the creators and users of the records, but also the manager, who had legal responsibility for management of that department’s records (sign-off responsibility). A sound management system must be based on accurate information about the functions and records of a given area and the support of its senior officials.

A formal meeting was then held with the department to glean information about specific records series. This determined whether the record series would be in-scope and receive a new filing system or out-of-scope and not receive a filing system. If the record

¹¹ISO 15489-1:2001, 12.

series was in-scope each file in the series was entered into the Records Management database, a new label was created for it and affixed to a white folder, and re-filed.

The new classification code (with the retention period appropriate to the file) is present on each label. There is no one standard on how the label should look, as it is dependent on how the area actually uses their records. Either alphabetical or numeric identifiers could be used on folders, depending on what is easiest for access and retrieval, and best regarding compliance/retention and security. Records Management does provide guidance on this by supplying basic ideas about what should be on the folder label. Records Management guidelines are: folder title, a brief description, a 2 alpha or 5 numeric locator, a date band, a cost centre, and a class code. ISO recommends that records capture include: “classification and indexing which allow appropriate linking, grouping, naming, security protection, user permissions and retrieval, disposition, ... , arrangement in a logical structure and sequence, ..., which facilitates subsequent use and reference, ...”¹² This is accomplished with Records Management guidelines on folder labelling.

At the same time as the physical transfer of records into new labelled folders the files were entered into the Records Management database. The entry of these files can be seen as ‘registration’ under the ISO standard. Prior to the WorkSmart project, files were entered into the Records Management database only when they were sent by the employee to be stored with Records Management. With File Implementation, there is a more front-end focus on the records than before. Records and files will be controlled in the Records Management database as soon as they are created.

¹²ISO 15489-1:2001, 13.

The WorkSmart project also introduced a content/electronic records management tool to control digitally born records within the overall records management system: DCO from Documentum. Currently, this application works in behind the Microsoft Office Suite. So it appears that a user is in, for example, Word or Excel creating a record but is really in DCO. Hydro has developed and deployed DCO with the intent to manage records at the item level, not at the folder level. When the user saves the item/document he/she must enter the primary and secondary classification code on it to mark retention. This does not start the retention of the document. The record must be “promoted” by the user in the system for the retention to start calculating. Promoting is the technical term for when the record is complete and the retention can start. Although all records must have a Classification code tied to them to be saved in DCO, retention is not started until the record is promoted. At this stage as well, the author’s name is automatically tagged onto the document followed by the creation date. There is a section to add keywords for more retrieval capability.¹³ There is no set of standard keywords to use, but it is suggested that departments discuss this and devise a list for their areas. Although records are controlled at the item level, users can search for their records by either creating an electronic filing (folder) structure for the records or using the search engine. The majority of the records will be visible to all employees with DCO, but there is a security option that limits access to certain ones to those who need to see them. The Records Management Section has administrative responsibilities for the Records Manager module of DCO to ensure that its part of the product is running smoothly and is being used correctly by employees.

¹³Hydro is considering creation of a thesaurus of keywords for the program areas to assist retrieval of records.

A strong Records Management Program such as Manitoba Hydro's, based on ISO 15489, will enable photographs to be properly managed. As has been shown in the previous chapters photographs need to be managed systematically. They too are records. They help perform administrative, legal and archival functions.

The following section outlines how photographs could be integrated into Hydro's new records management system. Given that there are many types of photographs at Hydro, which are used and stored in various ways, a few different strategies for their management need to be created. For example, a collection of paper-based photographs that is no longer active should be sent directly to Records Management, whereas photographs that were born digital and are currently on a Shared-drive could be placed in DCO. Finally, it may be possible to interface the Digital Asset Management (DAM) system with DCO to add a more specific means of managing digital photographs. (That will be discussed later in this chapter.)

Manitoba Hydro will need a set of policies and procedures on how photographs are to be handled so that they can be maintained as evidence of corporate actions. These procedures need to aid users in classifying, filing and accessing photographs. The first step in managing information is to figure out what and how much there is to manage. Therefore a type of records inventory needs to be created. One of the first steps in establishing order over photographic records is to understand how they are organized and where they are stored, as was discussed in chapter four.

An inventory of the photographs is necessary to enable control of the photographs for both access and preservation. At this stage an inventory of the photographic records could be captured by using the same procedures used to obtain information about

different textual record series in the WorkSmart Project File Implementation phase.

This would provide an estimated count of images and a preliminary look at their current condition. There would be some additional questions about the photographs at this stage, such as identifying the photographic process, and determining their physical assemblage (such as if they are mounted, un-mounted, or housed in albums) in order to aid the discussion of how they should be stored. As well, the photographs can be checked to see if they have individual or group descriptors, such as titles, date, a creator, and a unique numbering scheme or perhaps none of the above. This information will help in understanding the scope of the project.

The next two steps that are required to control photographs are applying the Records Classification Schedule to them and conducting a physical evaluation for damage. The function and activity that the photographs represent within Manitoba Hydro must be understood in order to apply classification. Photographic records must have the same questions asked of them as textual records such as, "what is the function of photograph", and "what is the activity that it is showing." These questions need to be answered by the creator of the image. With these answers a place within the Records Classification and Retention schedule can be found, and a Class Code applied to the image. It is important to note that no photograph should be judged only according to its subject matter for retention or classification purposes. It is true that many photographs, such as those in the information, publicity, or educational collections, are multi-purpose, but from a records management perspective classification is done by the function and activity that the photograph performed for the creator.

Also, since photographic records may be either paper based or digital, rules for each type of photograph must be established. Like those of most corporations and government bodies, Manitoba Hydro's records are in a hybrid state, both paper and electronic form.

The following section offers three hypothetical models that could be used by a Hydro Engineering group to manage three formats of photographs: distinct groups of paper photographs; paper photographs inter-filed in a paper filing system; and digital photographs. For paper photographs, file folder labels could be created to store individual or groups of photographs. These labels would be created with input from the owner of the photographic collection to ensure usability. The information on the labels would be drawn from appropriate new standardized Hydro records management fields such as the Class Code. The user could have input into placement of certain fields on the label. For example, whether they would like to organize the information by alpha or numeric or Class code descriptors, as their primary finding aid. It is recommended that people file by the alpha or numeric as they will retrieve the file from their shelf faster. The Class code on the folder is primarily a trigger for retention. The user could also decide if there is a need to store individual photographs separately, or if grouping photographs together is preferred (Plate 39 and Plate 40).¹⁴ Both of the plates are examples of labels that could be applied.

I will briefly describe the above two examples of a label design. Note that the label information is duplicated like a mirror image on the same label, and at the top there

¹⁴The Engineering photographs do not fit into this AD O1 hypothetical Class Code. I am providing just an example of where the Class Code could be placed on the folder label. As well I am making the point that all corporate records will have a class code assigned to them.

is a small black perforation line. This duplication allows the same information to be posted on to each side of the folder's tab, for easy viewing, no matter if viewed from the left or right of the folder. The top of the label (Plate 39) has the Class Code 'AD01', moving down the side of the label, the Class Code is repeated and the Cost Centre '11111' is captured. Below this information in the middle of the label there are two lines of text. The first line is the title of the folder, 'Civil Engineering Annual Picnic Photographs.' The second line is the description of the information contained within the folder, 'Tug-A-War Collection, 20 images.' At the base of this label is a 2 alpha code 'TU', a reference to the beginning of the folder description line, i.e. Tug-A-War. Thus the viewer can see that the file contains 20 photographs of the Tug-A-War. Another alternative in the descriptive line is to add a 'ph' 2 alpha code as a corporate standard denoting that the file contains photographs. Or the 'ph' could be added as a block coloured alpha at the base of the file for easy retrieval accompanying the 2 alpha of the description. The last space on the label base is a year band that marks when the contents in the folder were created, '09' is a descriptor for the year 2009.

The top of the label (Plate 40) has a numeric code, in this case the numeric code could represent a photograph number that the user has assigned. Moving down the side of the label, note that the Class Code is recorded 'AD01' and the Cost Centre '11111.' Below this information in the middle of the label there are two lines of text.¹⁵ The first line is the title of the folder, 'Bob Wins, Civil Eng. Annual Picnic Photo.' The second line is the description of the information contained within the folder, 'Photograph published in Annual Report 2009.' The last space on the base of the label contains the

¹⁵The Class Code is not prominently on the label as the other folder label example. This label limits the too many large numeric's that could confuse the user.

year that the contents in the file were created (“09” represents the year 2009). These are examples of how paper photographs could be labelled and filed as either distinct groups or as individual items at Manitoba Hydro for easy access by their offices of origin. Plate 41 is an example of what a file room looks like after implementation using standard labels.

Paper photographs that are inter-filed within paper filing systems should be left where they are if this approach is functioning for the user. In order to ensure that these photographs are not forgotten in the future, I recommend that these folders have a paper itemized list of each photograph that they contain. The list would contain the photograph's title, date taken, owner, and any other information that the owner deems relevant to the way that they use the photographs. If these photographs do get transferred to the Records Management section this list will be entered into a database for retrieval and monitoring purposes.

For the filing of digital photographs, Plate 42 demonstrates a file tree with four hypothetical variations on how to file. Each example is separated by a space. One way in which to file photos is to list the Class Code ‘CC01’ and create a title ‘Project Files (Photographs).’ Under this major heading subdivide the main file into working categories -- in this case by generating stations, ‘Grand Rapids’ and ‘Seven Sisters.’ Under the subject, the sub-headings are the year in which the images were taken: ‘2004-05’. The user could add another folder under the date if further breakdown is required. The second example, unlike the above example, is not sub-divided by generating stations, just divided chronologically by year. The third example does not have a Class Code, but

a subject title of 'Maintenance File (Photographs).'¹⁶ This main file is then subdivided into years, '2004-05' or '2005-06' etc.... The final example of digital photographic filing is a specific example for DCO. The main heading is a Class Code 'CC03' and title 'Accident Files (Photographs).' This main file is then subdivided into years '2004-05'. Beside the date in brackets there is the caption 'promote' or 'transitory.' These captions are to aid the controller of the photograph in managing which photographs are records and should be formally promoted in DCO, in order to start the clock on their retention period and which photographs are transitory and do not need to be moved forward to DCO to have a retention period started. The latter photographs can simply be deleted. This structure may aid in the appraisal of corporate photographs. For example, if there are forty photos of a fracture in concrete, the user could place one in the 'promote' folder and thirty-nine in 'transitory' folder. These are a few hypothetical filing examples for paper photographs, photographs interfiled with paper records, and digital photographs.

Records Management could also encourage discussion of digitization of photographs to provide access throughout the corporation to all Hydro imagery. In essence, there could be a type of image bank.¹⁷ This is a secondary priority at the

¹⁶The Class Codes used in the Filing system are just hypothetical and are to be used as visual aids in this thesis. When the record is created in DCO it is mandatory that each individual record be class coded. The record will not be saved DCO if the Class code is not applied. Retention is managed at an item level not a folder level.

¹⁷For further discussion on digitization methodologies, see Helena Zinkham, Library of Congress, *USE, VALUE, VIABILITY: Criteria for Choosing Effective Processing Levels for Visual Materials*, <<http://www.loc.gov/rr/print/tp/UVV.pdf>> SAA/NAGARA Annual Meeting, 8/3/06. (Viewed January 23, 2009).

moment. The most important concern is that users are managing photographs well in their offices or sending them to Records Management for storage.

Since the late 1990s digital-born photographs have become the popular method of capturing images at Manitoba Hydro. Currently, digital photographs are stored on shared drives in a variety of ways, as discussed in chapter four. In order for a digital photograph to have descriptors that provide contextual information about the image, it is recommended that digital photographs be moved into Documentum DCO for management. Another alternative would be to use a Digital Asset Management (DAM) interface with Documentum. DAM enables the management of images, streaming video, sound bites, flash animation and web-sites within a content/electronic records management system.¹⁸ This interface fits into the Documentum platform and would add functionality to Manitoba Hydro's current content/electronic records management system. DAM contains a storyboard, consisting of a series of low bandwidth and low-resolution thumbnails or images that display the contents of a video file or of Adobe PDFs.¹⁹ Each thumbnail or image is treated as a rendition of the original file. The platform of Documentum at Hydro handles classification codes, storage of information, permissions, workflow cycles, and the sharing of information. The benefit of adding DAM is that this interface would handle different media types besides textual information in a more efficient manner.

¹⁸EMC, *EMC Documentum Digital Asset Manager Data Sheet*, <[http:// www.EMC.com](http://www.EMC.com)> Requires EMC Administrator rights to view. (Viewed January 25, 2009).

¹⁹EMC, *Digital Asset Manager, Version 6.5, User Guide, P/N 300006939 A01*, 141, <[http:// www.EMC.com](http://www.EMC.com)> Requires EMC Administrator rights to view. (Viewed January 25, 2009).

Storage requirements need to be established for digital photographs. For photographs in databases it is usually recommended that jpeg images be used, as they are fast to load due to their small file size. They are surrogate images that are derived from the master file and do not have high resolution. However, a master image of the database image should be kept. The master image should be saved as an uncompressed format (TIFF). These are captured at a high resolution and stored elsewhere outside the database.²⁰

Preservation of paper and digital photographs is a further concern of Records Management. The forces that threaten paper photographs in storage often occur too slowly to recognize. Moisture, air pollution, mould, insects, and heat in the storage environment can cause deterioration.²¹ Therefore, photographs need protection against excess pressure, dust, abrasion, and other causes of damage. Deterioration from poor storage is appalling and irreversible. That is why providing proper storage is so important and why upgrading storage conditions and materials is one of the most positive steps that can be taken to preserve Manitoba Hydro paper photographs and negatives. The storage environment for photographs is based on controls for Relative humidity (RH), temperature, air pollution and light.²²

For digital photographs preservation is a major issue in the future. Margaret Hedstrom has identified the duality in the definition of digital preservation:

²⁰Canadian Heritage Information Network, *Digitalizing Images for your Museum*. Workshop attended October 15, 2001.

²¹Reilly, 82.

²²Canadian Conservation Institute, *Guidelines for Humidity and Temperature for Canadian Archives. Technical Bulletin 23*. (Ottawa: Department of Canadian Heritage, 2002).

The term 'digital preservation' refers to both preservation of materials that are created originally in digital form and never exist in print or analog form (also called "born-digital" and "electronic records") and the use of imaging and recording technologies to create digital surrogates of analog materials for access and preservation purposes.... Digital materials, regardless of whether they are created initially in digital form or converted to digital form, are threatened by technology obsolescence and physical deterioration.²³

Manitoba Hydro must devise a means of providing access over the long term to its digital images. This strategy should incorporate all "digital-born" records and imaged records. Currently there is no solution to this problem. However, there are three options for Manitoba Hydro to consider: refreshing, migration, and emulation. Refreshing means "... copying digital files from one storage medium to another storage medium of the same type to prevent media obsolescence."²⁴ This replaces storage media, but not obsolete software and hardware and is not a full solution. Migration involves "... the periodic transfer of digital materials from one hardware/software configuration to another, or from one generation of computer technology to the next."²⁵ Emulation is "... the development of software that performs the functions of obsolete hardware and other software."²⁶ This brief discussion merely touches the surface of the problems of preservation of digital information. It is mentioned here because Hydro will need to address this for corporate photographs and all company records. This should be a major

²³Lazinger, 18 quoted from Margaret Hedstrom and Sheon Montgomery (1998) *Digital Preservation Needs and Requirements in RLG Member Institutions* Online, available at <<http://www.rlg.org/preserv/digpres.html>> (Viewed March 23, 2006).

²⁴Lazinger, 76.

²⁵Ibid., 77.

²⁶Ibid.

component of any further future development of Records Management at Manitoba Hydro.

An institution's photographs must fall under a records management umbrella and be classified and scheduled along with all other records. They are vital and useful evidence of corporate functions. Photographs need to be systematically managed by Hydro and Records Management can aid the corporation in doing so. By having an established Records Management program based on ISO 15489 Manitoba Hydro will be able to do so.

Conclusion

This thesis demonstrates that photographs are records of great importance to Manitoba Hydro and the people of the province and that these records need to be managed well. These images hailed the new era of electricity in the early twentieth century. Images of electricity's uses promised an end to the drudgery of household or farm chores. They were also used by hydro-electric companies to try to build a sense of corporate 'family' and loyalty to the company among its employees. As well, photographs offered technical information about new equipment that needed to be installed and maintained.

Today, Manitoba Hydro uses older and contemporary photographs to assist with the maintenance of hydro-electric installations and in its public relations work. Although there is no doubt about the importance of photographs to Manitoba Hydro, there has not as yet been a systematic strategy to manage them. They have been managed in a variety of ways by the units that have created or inherited them. Manitoba Hydro's recent comprehensive revision of its records management system through the 'WorkSmart' project has put the corporation's records management program on a new footing that provides an improved foundation for addressing photographic records. This thesis has suggested how records management for photographs might be dealt with in future development of the corporation's records management program. In so doing, the thesis has also attempted to make a contribution to the still limited records management literature on photographs.

Plates

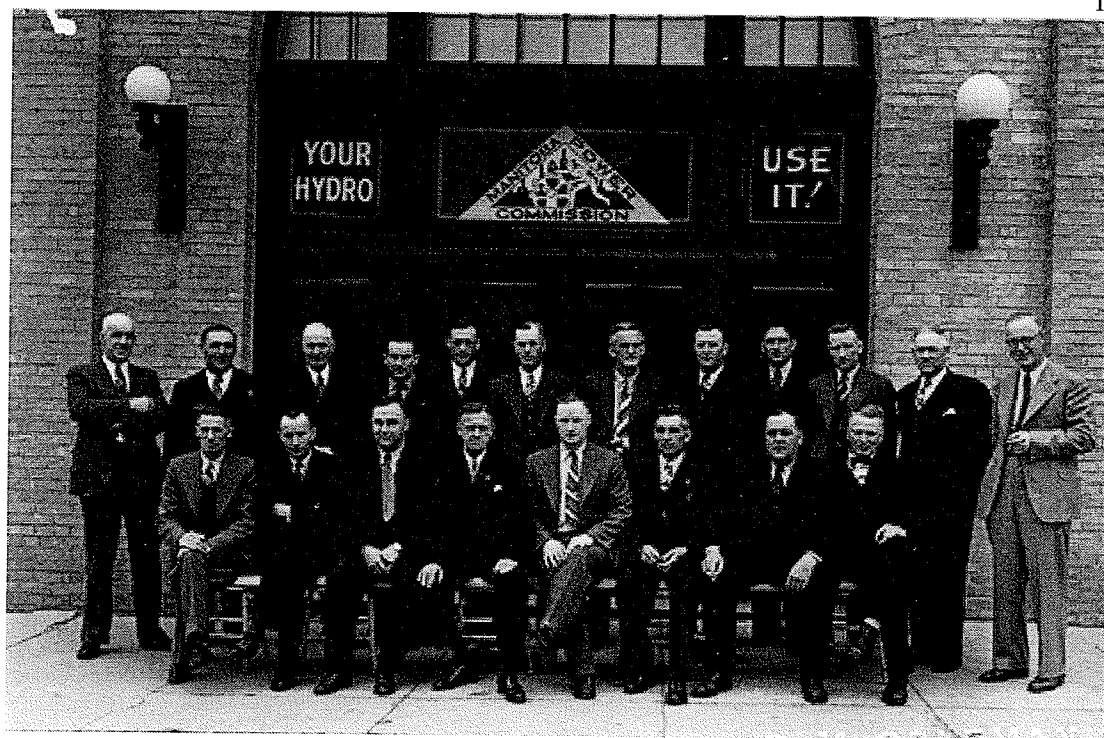


Plate 1: Manitoba Power Commission Annual Conference. Group of District Supervisors in front of the 10th Street office in Brandon.

Source: Hydro-X Photograph Collection
Used With Permission of Manitoba Hydro

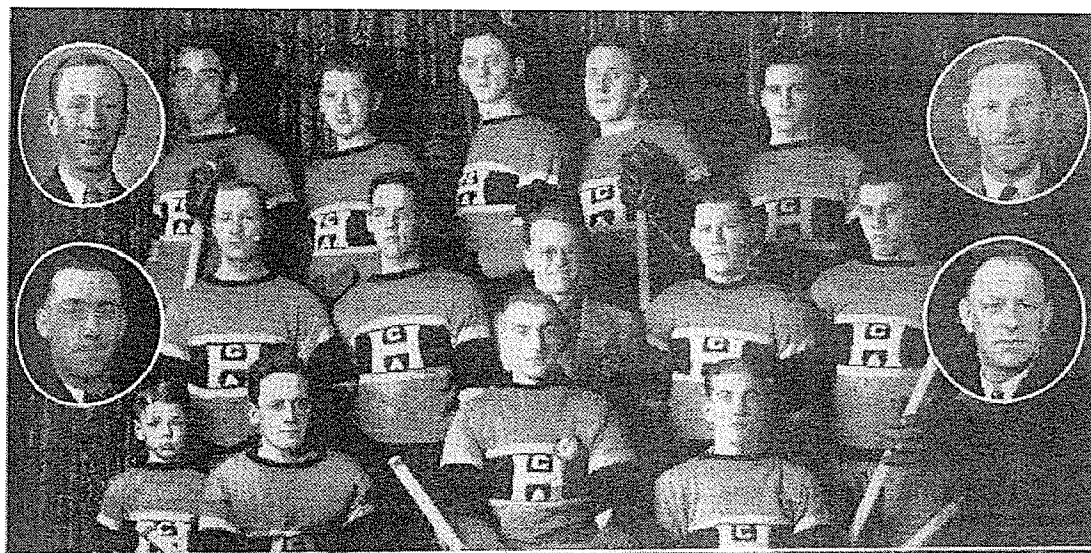


Plate 2: City Hydro Hockey Team, 1938.

Source: *Hydro News*, (May, 1938). Winnipeg Hydro Archives.
Used With Permission of Manitoba Hydro



Plate 3: City Light and Power 3rd Annual Picnic, Grand Beach. July 29th, 1920.

Source: Winnipeg Hydro Archives
Used With Permission of Manitoba Hydro

OUR TEN YEARS OF GROWTH

The loyalty of the Citizens in supporting their own electric system is evidenced in the following table covering the 10 years during which we have been in operation.

Year Ending	Peak Load H.P.	K.W. Hours Generated	Number of Consumers	Total Annual Billings
1912	14,000	28,000,000	18,000	\$ 394,869.00
1913	19,000	54,263,400	27,500	840,108.00
1914	23,000	68,638,315	32,000	1,074,877.00
1915	26,000	73,097,170	34,500	1,086,179.00
1916	27,000	81,229,340	35,000	1,151,230.00
1917	29,000	85,336,830	36,000	1,183,163.00
1918	31,000	88,947,190	37,500	1,205,451.00
1919	35,000	93,991,800	39,000	1,337,223.00
1920	39,000	111,423,500	42,700	1,572,638.00
1921	46,000	*125,000,000	45,500	1,750,000.00

*Approx

With a record like this we look confidently to the future, feeling sure that we have the support of the Citizens behind us. We look to you to talk to that friend who is not using City light and power.

LEST YOU FORGET

Cost of Electric Light Rate in Winnipeg has been reduced as follows:—

1906—Private Plant Monopoly	20c	per K.W.H.
1907— " " "	10c	per K.W.H.
1911— " " "	7½c	per K.W.H.
1912—City Plant in Competition	5½c	per K.W.H.

Note.—First reduction of rates only occurred in 1907, after the Ratepayers had approved by an overwhelming majority the by law to build a Municipally owned plant.

Moral.—Use CITY LIGHT AND POWER in your Home, Office and Factory.

Plate 4 and Plate 5: Excerpts from the *Hydro News*.

Source: *Hydro News* (October, 1921). Winnipeg Hydro Archives.

Used With Permission of Manitoba Hydro

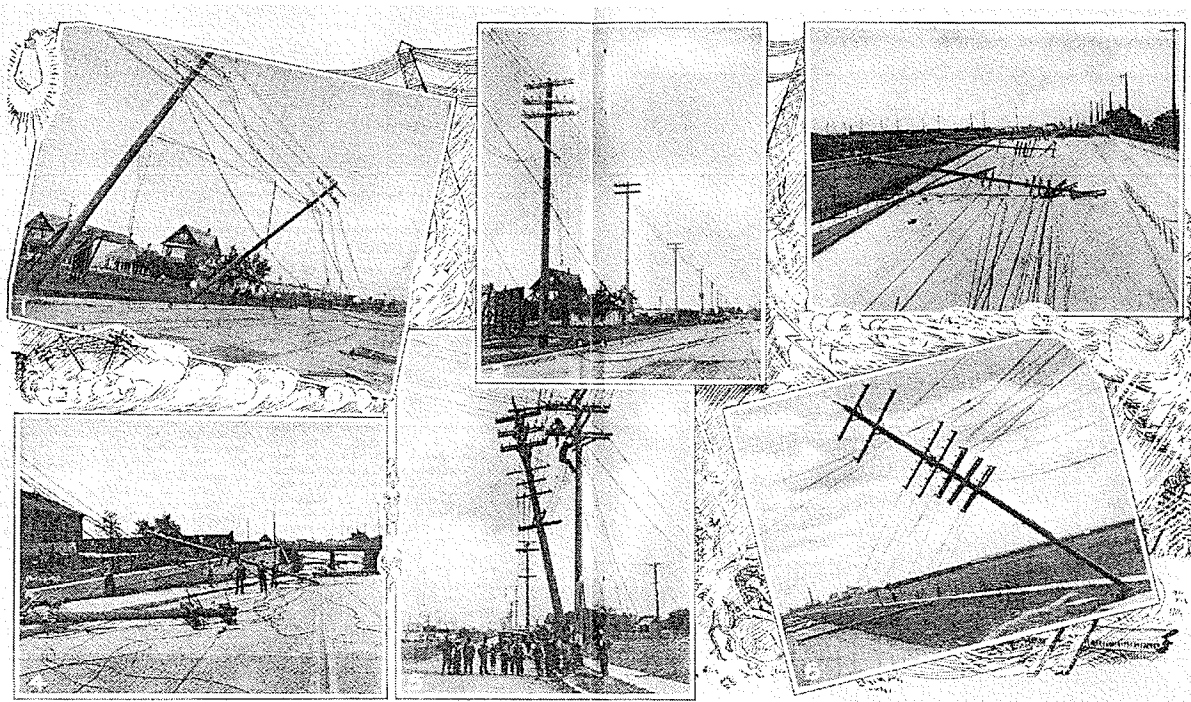


Plate 6: Cyclone Damage as portrayed in the *Hydro News*, 1922.

Source: *Hydro News* (July, 1922). Winnipeg Hydro Archives

Used With Permission of Manitoba Hydro

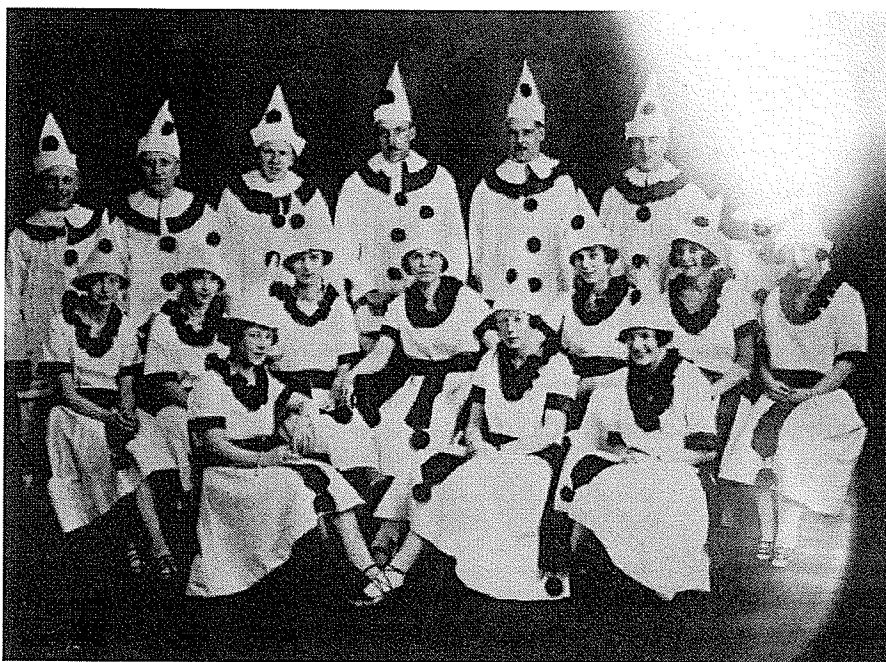


Plate 7: Hydro Follies, 1927.

Source: Winnipeg Hydro Archives

Used With Permission of Manitoba Hydro



Plate 8: Winnipeg Hydro's Main Office on King Street, circa 1930's.

Source: Winnipeg Hydro Archives

Used With Permission of Manitoba Hydro

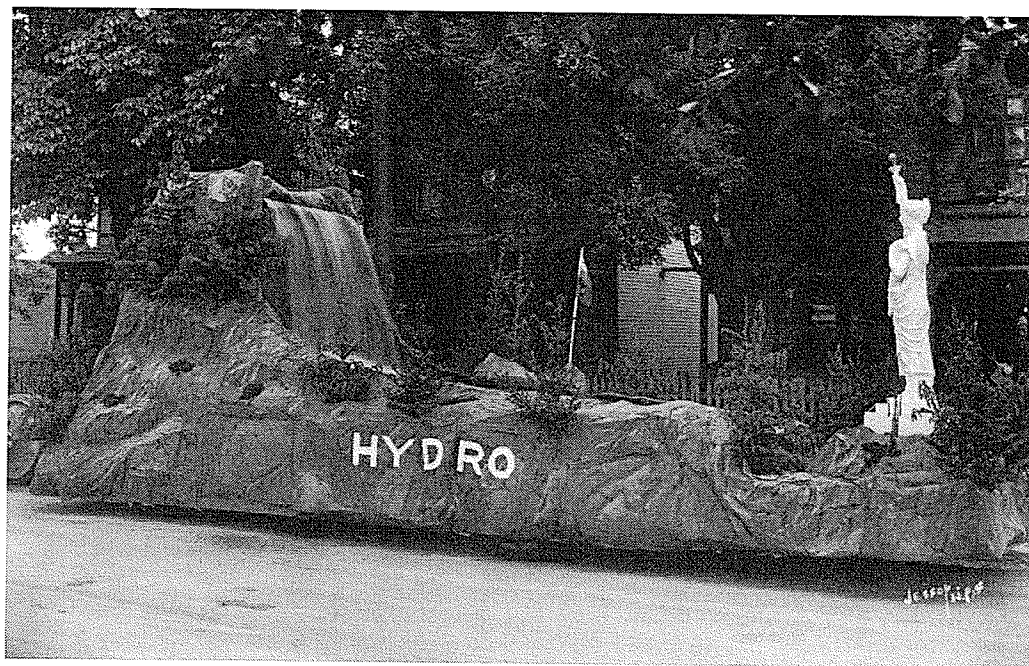




Plate 9: Winnipeg Hydro's Diamond Jubilee Float, 1927.
Source: *Hydro News* (July, 1927). Winnipeg Hydro Archives
Used With Permission of Manitoba Hydro



He knows a treat's awaiting him.
Every simple day.
For Mother's meals are always good.
Cooked the Hydro way.

1925		APRIL					1925
SUN.	MON.	TUE.	WED.	THU.	FRI.	SAT.	
3 P.M. 30	4 P.M. 6	5 P.M. 15	1	2	3	4	
5	6	7	8	9	10	11	
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30		1 P.M. 31	



ELECTRIC COOKING IS CORRECT COOKING

SEE BACK OF THIS SHEET FOR
HELPFUL HOUSEHOLD HINTS

Plate 10: Gift Calendar, 1925.

Source: Winnipeg Hydro Archives

Used With Permission of Manitoba Hydro



Plate 11: Cover of the Manitoba Power Commission newsletter, *Town and Farm*, November 1946.

Source: Hydro-X Collection

Used With Permission of Manitoba Hydro



Plate 12: Model Kitchen where housewives could receive hands on help.

Source: Album HA.28.2001. Winnipeg Hydro Archives.

Used With Permission of Manitoba Hydro

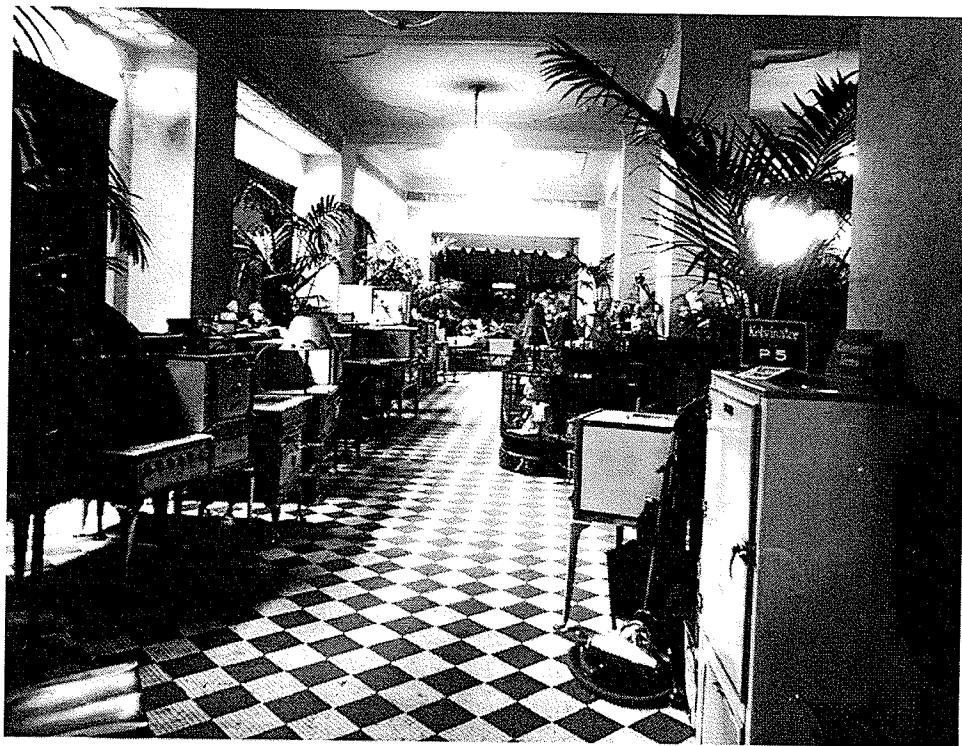


Plate 13: Manitoba Power Commission, Appliance Showroom, circa 1930's. Source:
Hydro-X Collection
Used With Permission of Manitoba Hydro

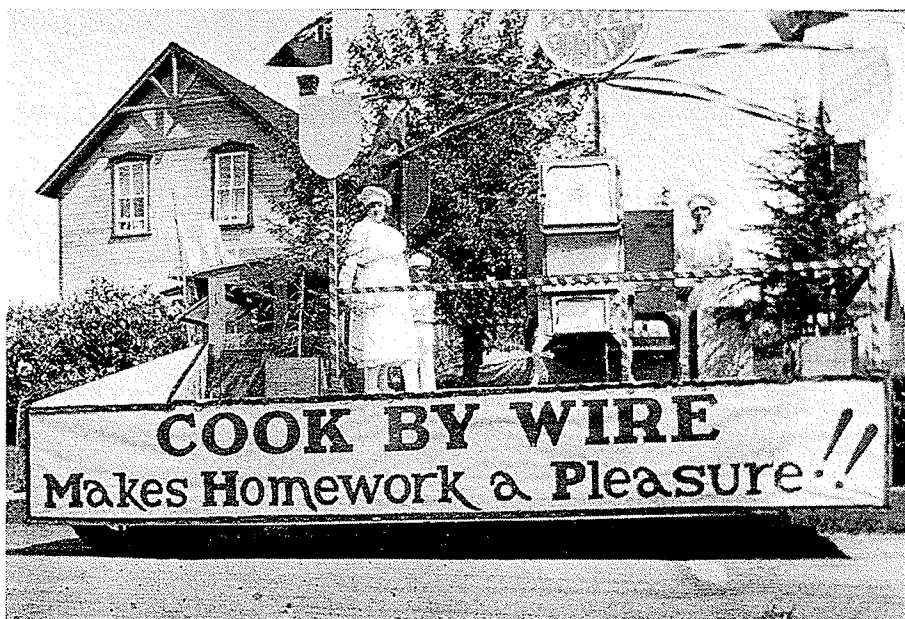


Plate 14: Float from the Portage la Prairie parade. Ms. Herman Wenzel and Ms. Bert Wynne stand beside the only electric stove available for sale in the city. 1926.

Source: Hydro-X Collection

Used With Permission of Manitoba Hydro

Commission Connects 100,000th Customer



Premier Douglas Campbell is seen closing the breaker which officially energized the Commission's 100,000th customer. This was a red letter day in the history of the Manitoba Power Commission.

The year, 1954, has been an important one in the history of The Manitoba Power Commission. In addition to completing its area-coverage farm electrification programme last March, the Commission marked another high point this year when, on October 22, it connected to its system its 100,000th customer.

Mr. and Mrs. Arnold Weerts, who farm in the municipality of Ochre River, had the distinction of being the Commission's 100,000th customer. The Weerts are a well-known young couple in their district for they attended local schools and have lived on their present farm for the past three years. They have a typical Manitoba farm—average in size, complete with grain, livestock and all that is considered part of farming in a mixed agricultural area.

The ceremony officially connecting the 100,000th customer was attended by numerous Provincial, Municipal and Hydro officials. W. D. Falls, General Manager, was master of ceremonies and introduced the various speakers. Lloyd Waite, district supervisor at Ochre River, installed meter No. 100,000 in honour of the special event.

The Honourable C. L. Shultsweert, Minister of Public Utilities, summed up the importance of the event when he stated, "This day represents the culmination of many years of planning and actual construction work. It indicates the great strides which the Province of Manitoba has made in improving living conditions and extending the urban way of life to the rural areas."

Speaking of Manitoba's electrification programme, G. L. Moigat, M.L.A., Ste. Rose, added, "It is to the credit of the Government of



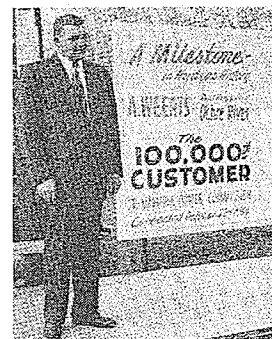
Mr. and Mrs. Arnold Weerts and son Albert were the Commission's 100,000th customer. At left, they inspect meter No. 100,000.

the Province, to the Management of the Commission and to the people of Manitoba that the area-coverage project has been conducted to such a successful end."

Representing the Board of The Manitoba Power Commission, Mr. R. C. Smellie, Chairman, spoke of the acceptance of electrical service on the part of rural residents of Manitoba. "It is safe to state that no other single factor has been so instrumental in equalizing the living conditions between rural and urban centres as the project of rural electrification," said Mr. Smellie.

Premier Douglas Campbell commented on the pride all Manitobans must surely feel in seeing area-coverage rural electrification completed and paid tribute to rural residents for their help and co-operation in bringing this project to a successful conclusion. "Just nine short years ago, only one Manitoba farm in every fifty was served by electricity," he stated. "Today, 90% of all Manitoba farms are able to take advantage of modern electrical service."

The highlight of the day arrived when Premier Campbell closed the breaker energizing the Weerts' farm. Movie cameras rolled and



W. D. Falls, General Manager, was master of ceremonies and introduced the distinguished speakers.



Left, Lloyd Waite, district supervisor at Ochre River, is seen installing meter No. 100,000.

Below: The executive staff of the Commission pose beside the sign which proclaims, "A milestone in Hydro's history." From left to right: W. L. Ferguson, F. L. Woodhall, C. B. Halliwell, W. R. Corner, L. B. MacLennan and G. A. Wright.



Plate 15: 100,000 Customer story from the Manitoba Power Commission *Bulletin*, November, 1954.

Source: Hydro-X Collection

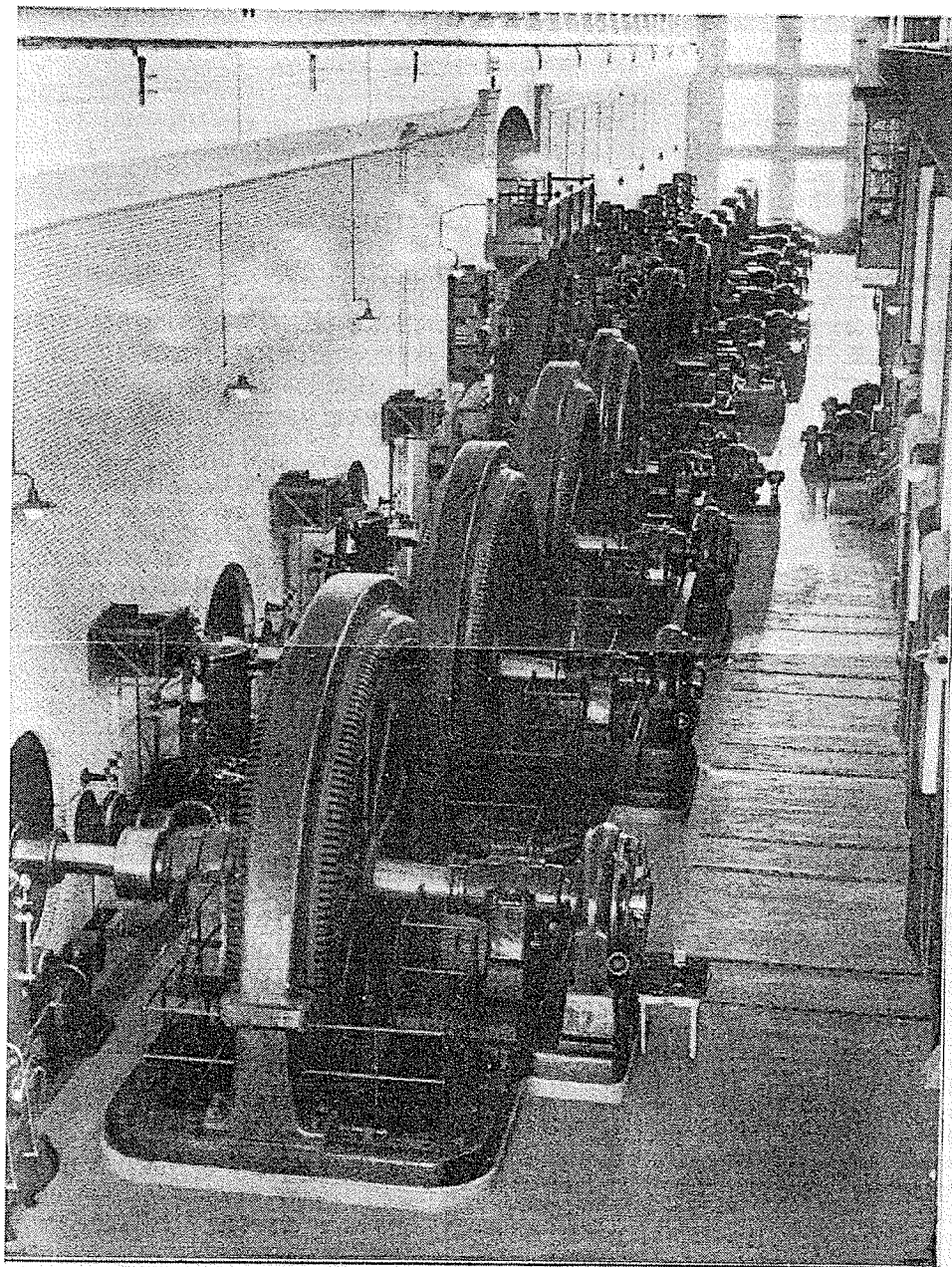
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Plate 16: Ernie Render, Manitoba Power Commission Business Representative (with hand on motor) explaining the various uses of electric motors at a Field Day event.

Source: Hydro-X Collection

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Generators in YOUR Plant at Point Du Bois.

Plate 17: Pointe du Bois Generators.

Source: *Hydro News* (January, 1923). Winnipeg Hydro Archives.

Used With Permission of Manitoba Hydro

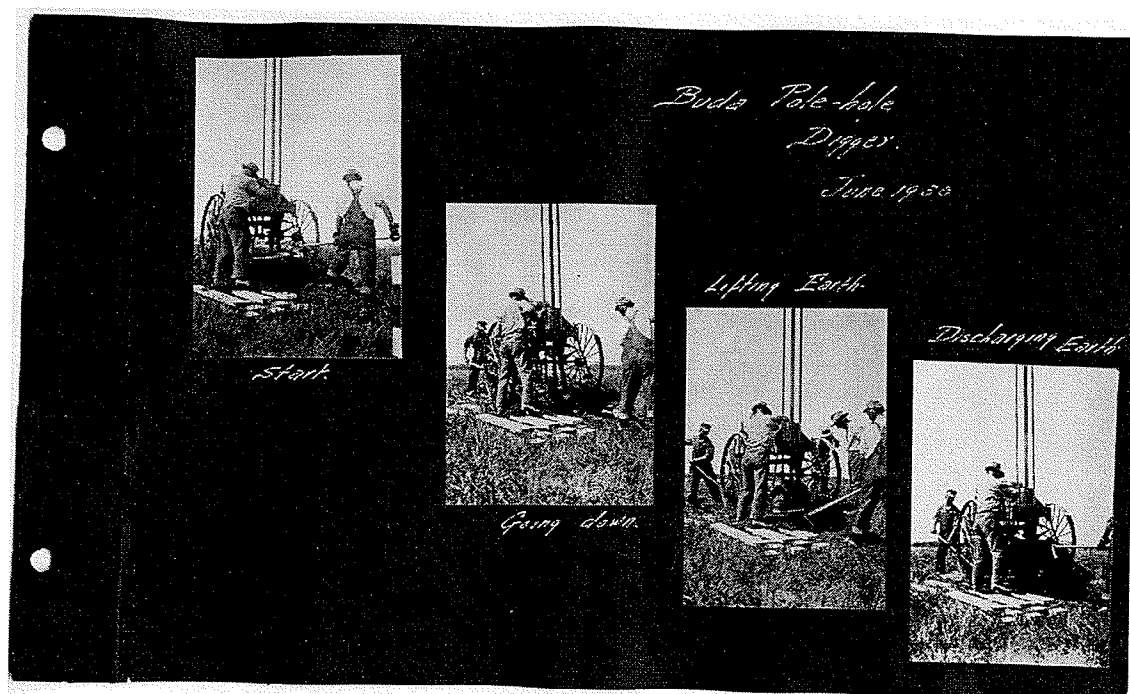


Plate 18: Early gas engine Digger, June 1930.

Source: Hydro-X Collection

Used With Permission of Manitoba Hydro

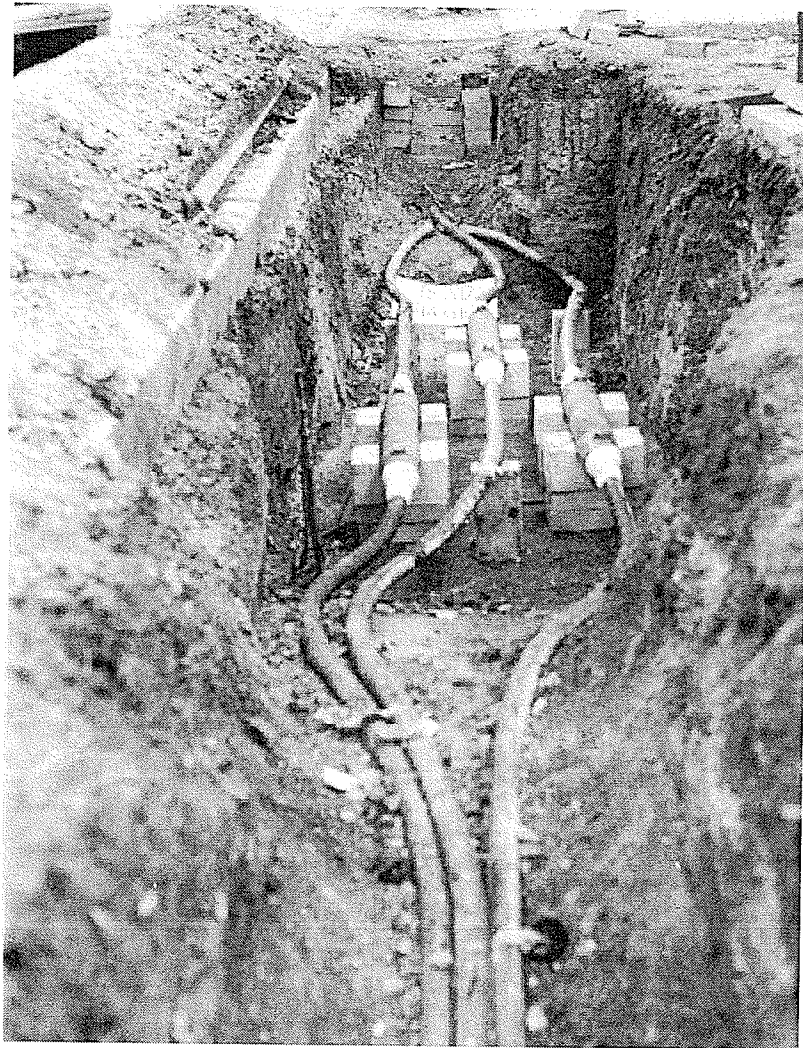


Plate 19: 69KV Solid Type 1 conductor 350,000 CM cable, Installed 1948. Source: Winnipeg Hydro Archives.
Used With Permission of Manitoba Hydro

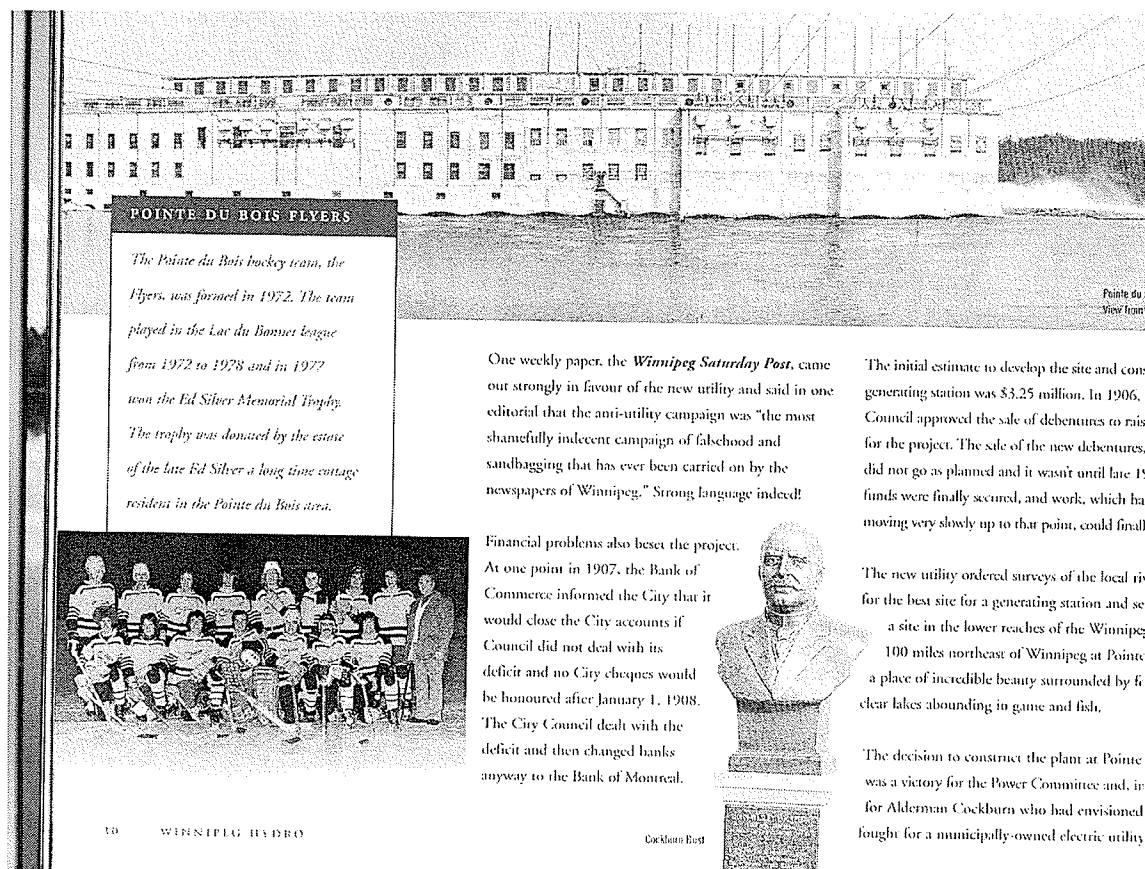


Plate 20: Page from the *Winnipeg Hydro: Reflections 1911 To 2002*, pertaining to Pointe du Bois.

Source: Winnipeg Hydro, *Winnipeg Hydro: Reflections 1911 To 2002*, (Winnipeg: Winnipeg Hydro, 2002), 30.

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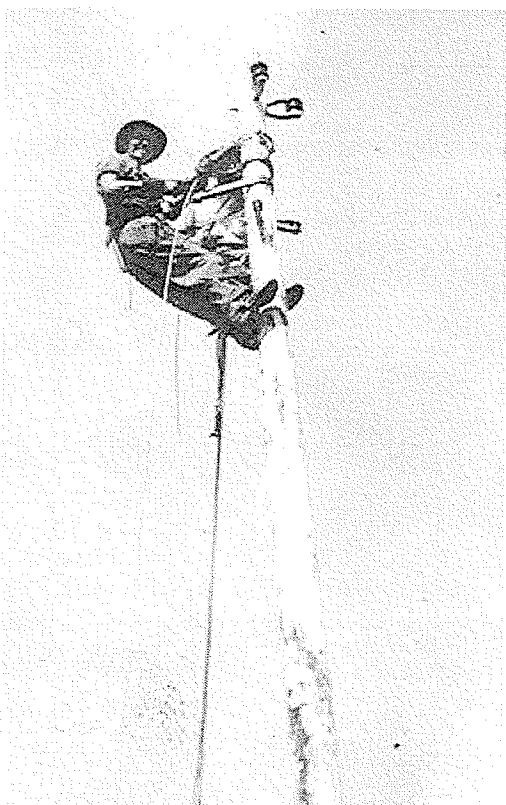


Plate 21: Man Scaling a Hydro Pole.

Source: Hydro-X Collection

Used With Permission of Manitoba Hydro

Manitoba Hydro-Electric Board 53rd Annual Report

POWER SUPPLY

Tribute to our customers: Agricultural



In Holland, Manitoba dairy producer Flo Manin took advantage of the Power Smart Commercial Lighting Program by installing energy-efficient 175-watt pulse start metal halide lights in his milking barn operation. Studies have shown that when the duration, intensity and distribution of the lighting is improved, increased milk production can be expected. Compared to the previously used incandescent lights, the new technology also uses one-sixth of the electricity, resulting in lower energy bills.

POWER SUPPLY



► The new energy-efficient 175-watt pulse start metal halide lights in his milking barn operation, which studies have shown that when the duration, intensity and distribution of the lighting is improved, increased milk production can be expected. Compared to the previously used incandescent lights, the new technology also uses one-sixth of the electricity, resulting in lower energy bills.

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► The new energy-efficient 175-watt pulse start metal halide lights in his milking barn operation, which studies have shown that when the duration, intensity and distribution of the lighting is improved, increased milk production can be expected. Compared to the previously used incandescent lights, the new technology also uses one-sixth of the electricity, resulting in lower energy bills.

Plate 22: A Manitoba Dairy Farmer in his energy efficient barn.

Source: Manitoba Hydro-Electrical Board, 53rd Annual Report (Winnipeg: Manitoba Hydro, 2004), 36.

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Plate 23: Hydro Representative at Shamattawa

Source: Manitoba Hydro-Electrical Board, *53rd Annual Report* (Winnipeg: Manitoba Hydro, 2004), 30.

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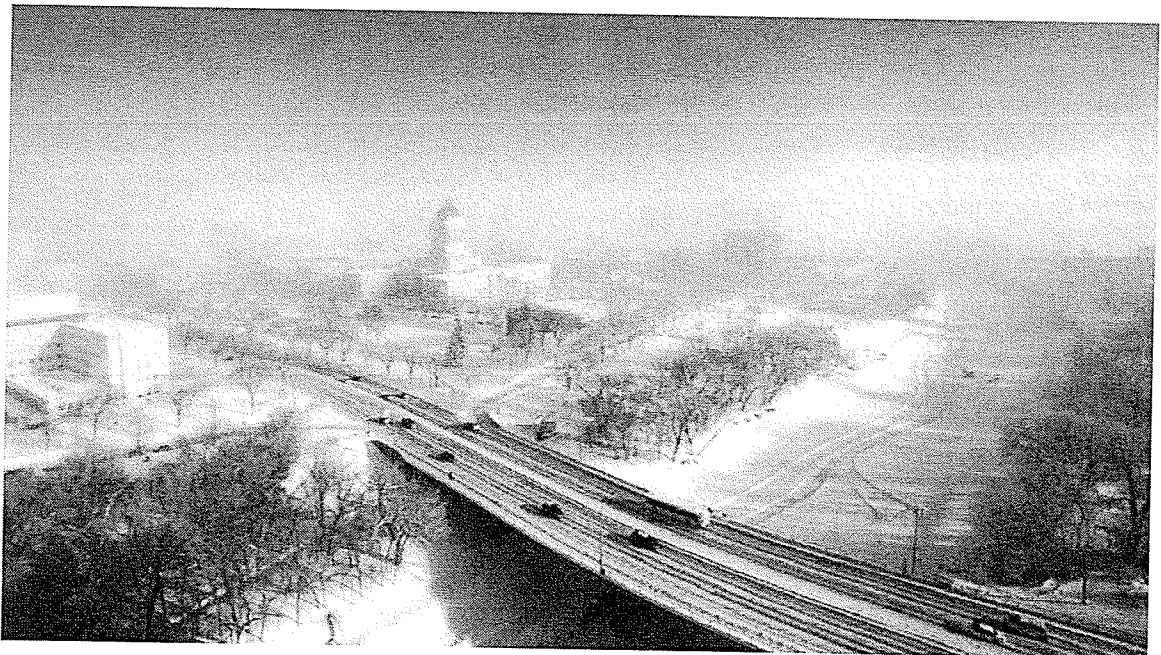


Plate 24: Winnipeg Winter overlooking the Assiniboine River

Source: Manitoba Hydro-Electrical Board, *53rd Annual Report*, (Winnipeg: Manitoba Hydro, 2004), 29.

Used With Permission of Manitoba Hydro

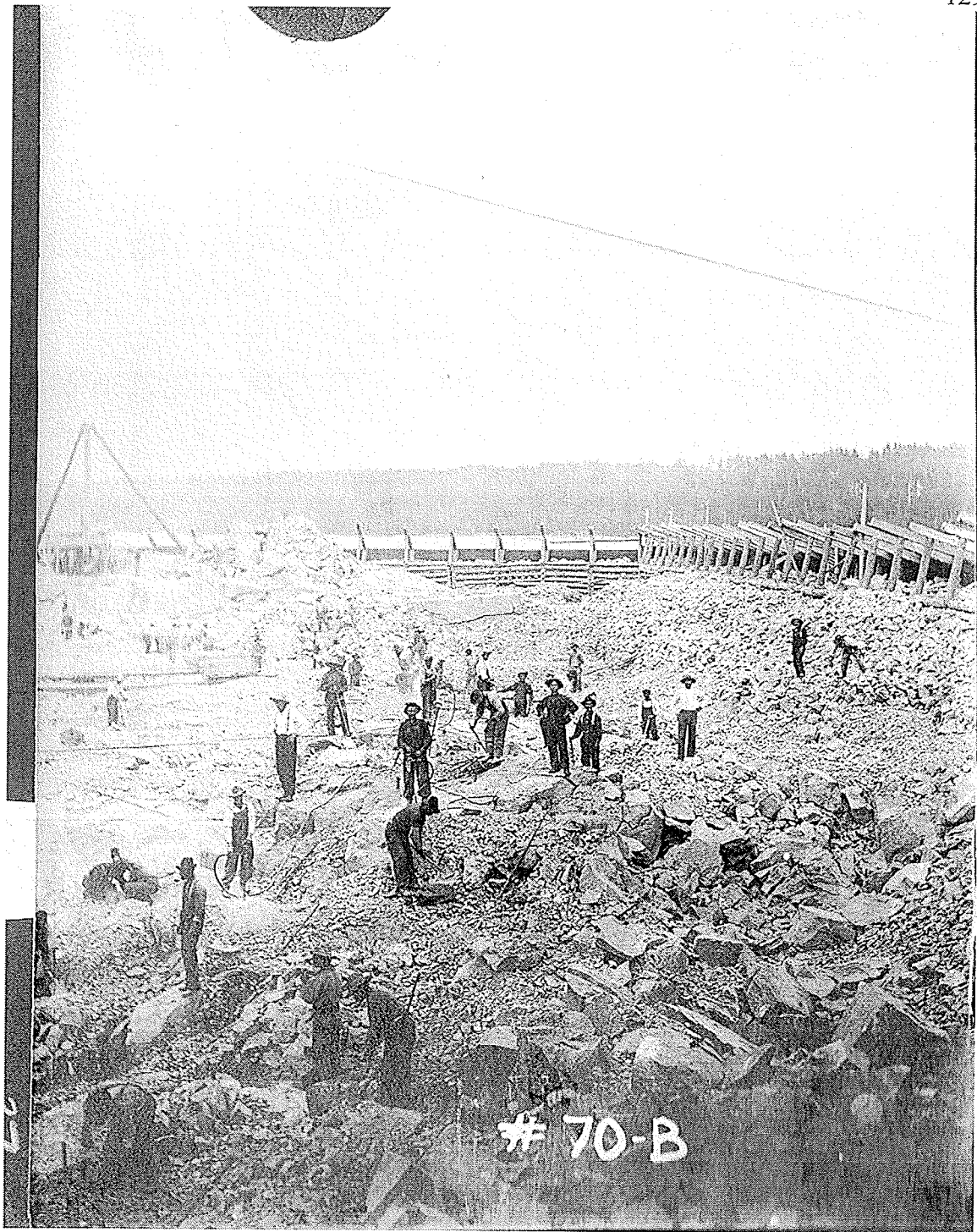


Plate 25: Pointe du Bois

Source: Winnipeg Hydro Archives

Used With Permission of Manitoba Hydro



Plate 26: Pointe du Bois, Power House Excavation, July 31, 09

Source: Winnipeg Hydro Archives

Used With Permission of Manitoba Hydro

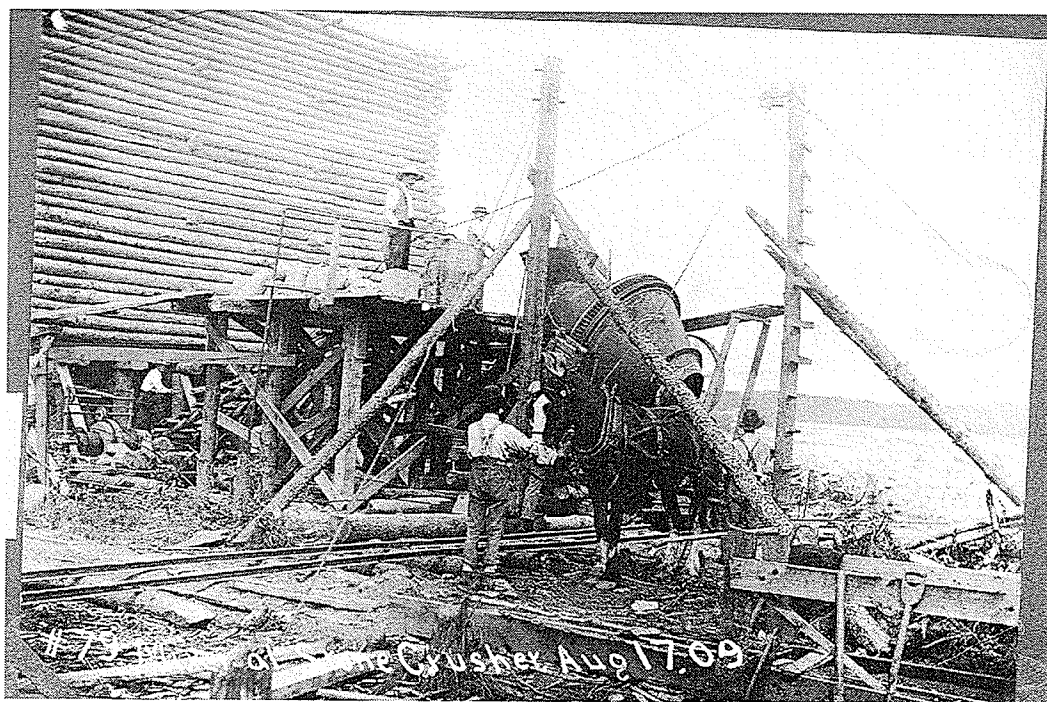


Plate 27: Pointe du Bois, Mixer at Stone Crusher, August 17, 09

Source: Winnipeg Hydro Archives

Used With Permission of Manitoba Hydro

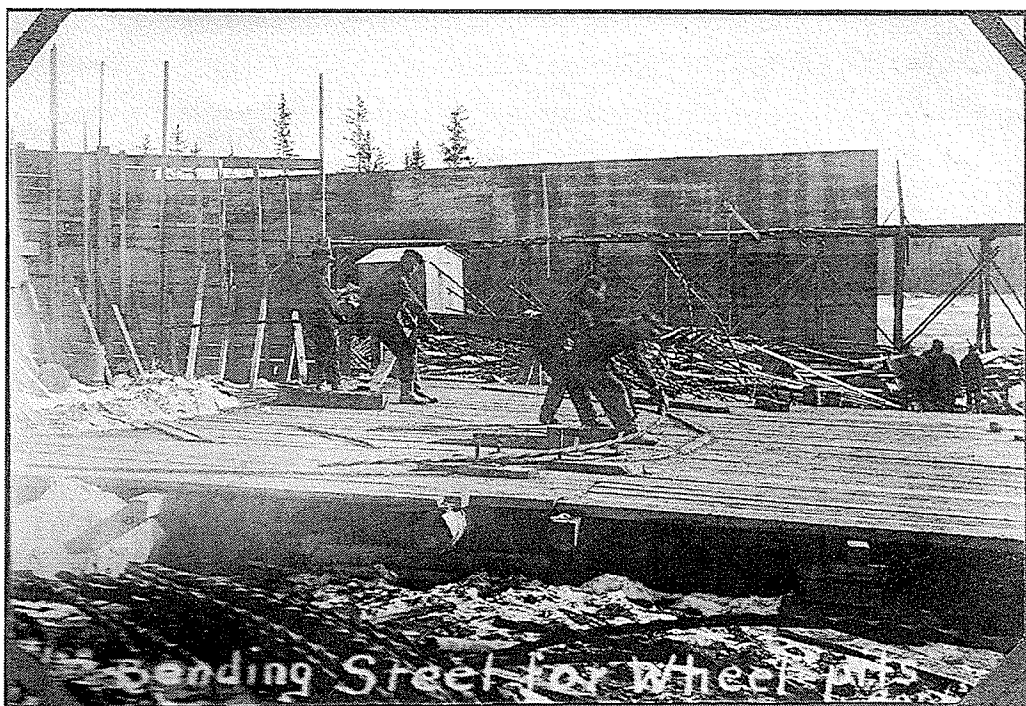


Plate 28: Pointe du Bois, Bending Steel for Wheel Pits

Source: Winnipeg Hydro Archives

Used With Permission of Manitoba Hydro

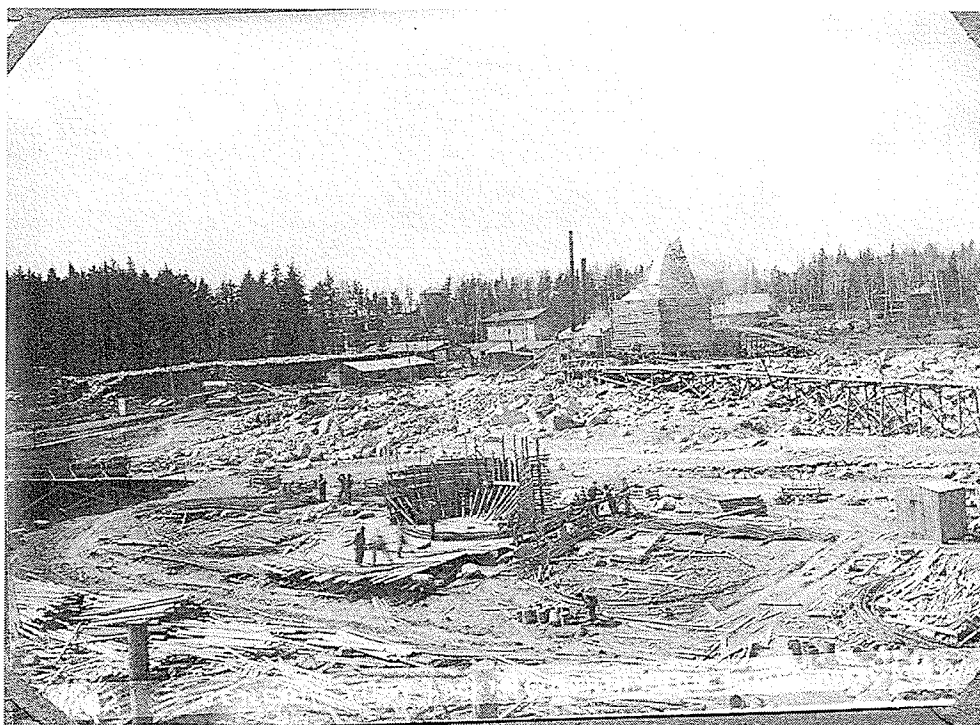


Plate 29: Pointe du Bois, General View Looking North

Source: Winnipeg Hydro Archives

Used With Permission of Manitoba Hydro

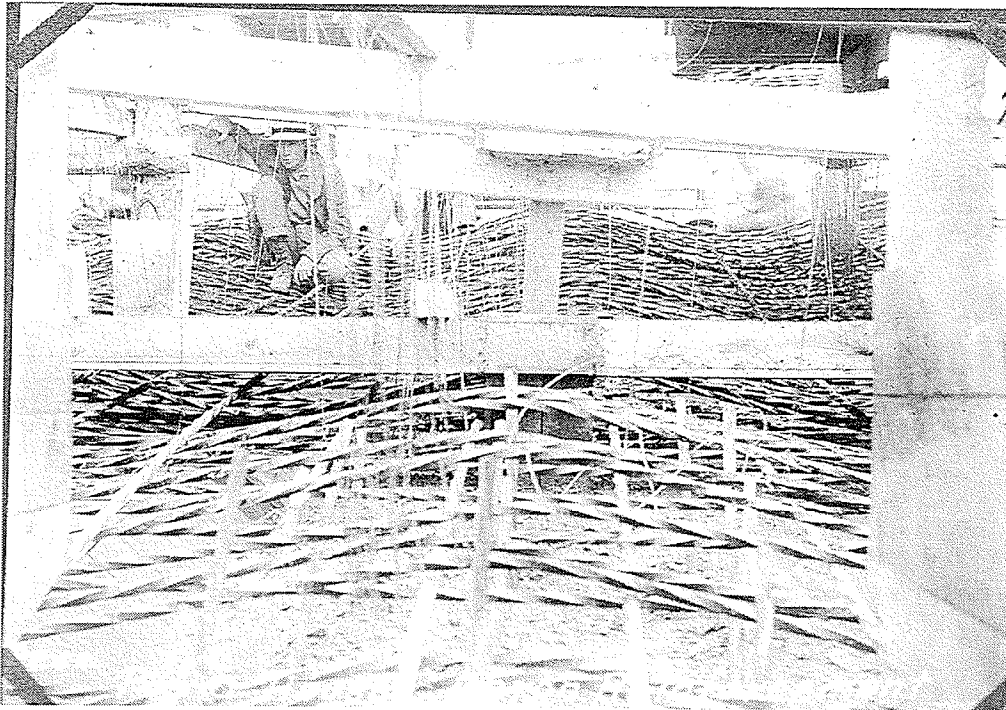


Plate 30: Pointe du Bois, Power House Apron Reinforcement

Source: Winnipeg Hydro Archives

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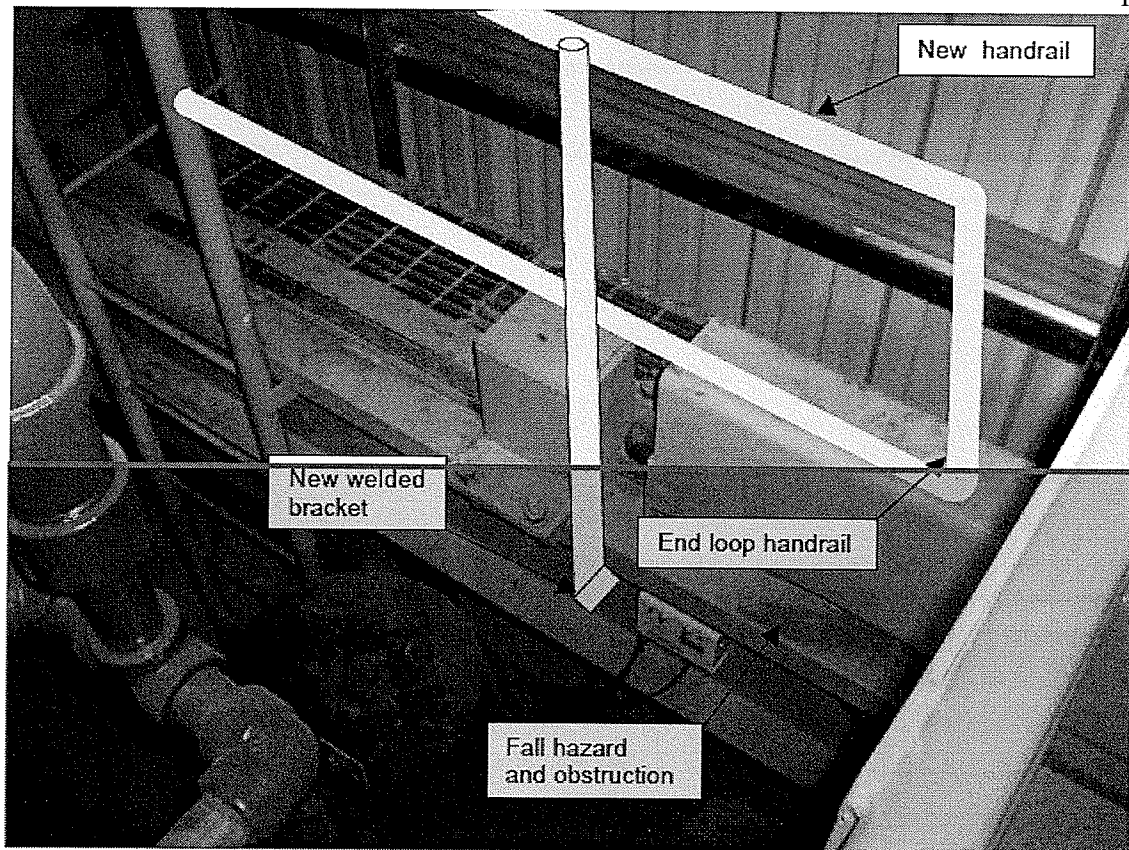


Plate 31: Proposed template of a Handrail

Source: Manitoba Hydro, Safety & Fall Protection Projects, *Scoping Memorandum & Concept Sketch* (Winnipeg: Manitoba Hydro, February 18, 2005).

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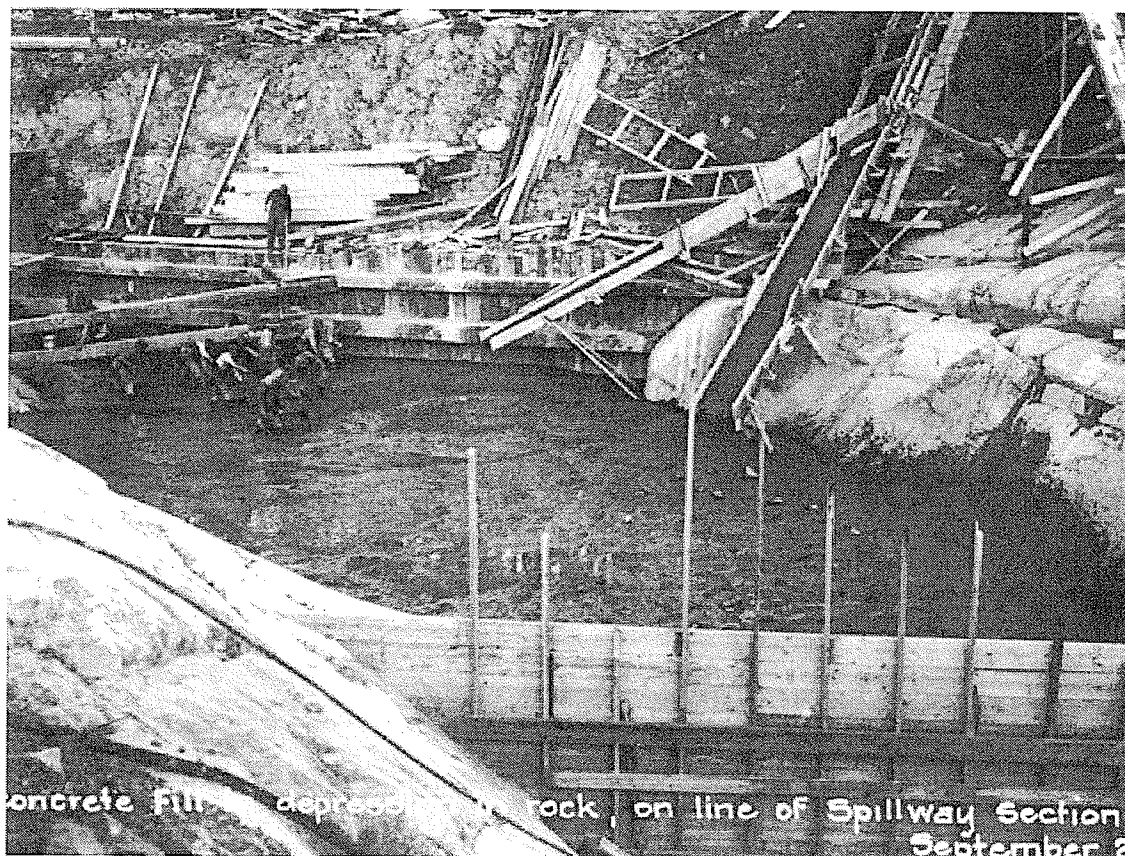


Plate 32: Seven Sisters, Concrete Fill in the depression in rock, on line of Spillway section, September 26, 1929.

Source: Manitoba Hydro, Civil and Geotechnical Departments, Generating Projects Division, *Seven Sisters Generating Station, Reference Volume-Concrete Construction and Concrete Repairs*, (Winnipeg: Manitoba Hydro, November 1975), photo 6.
Used With Permission of Manitoba Hydro

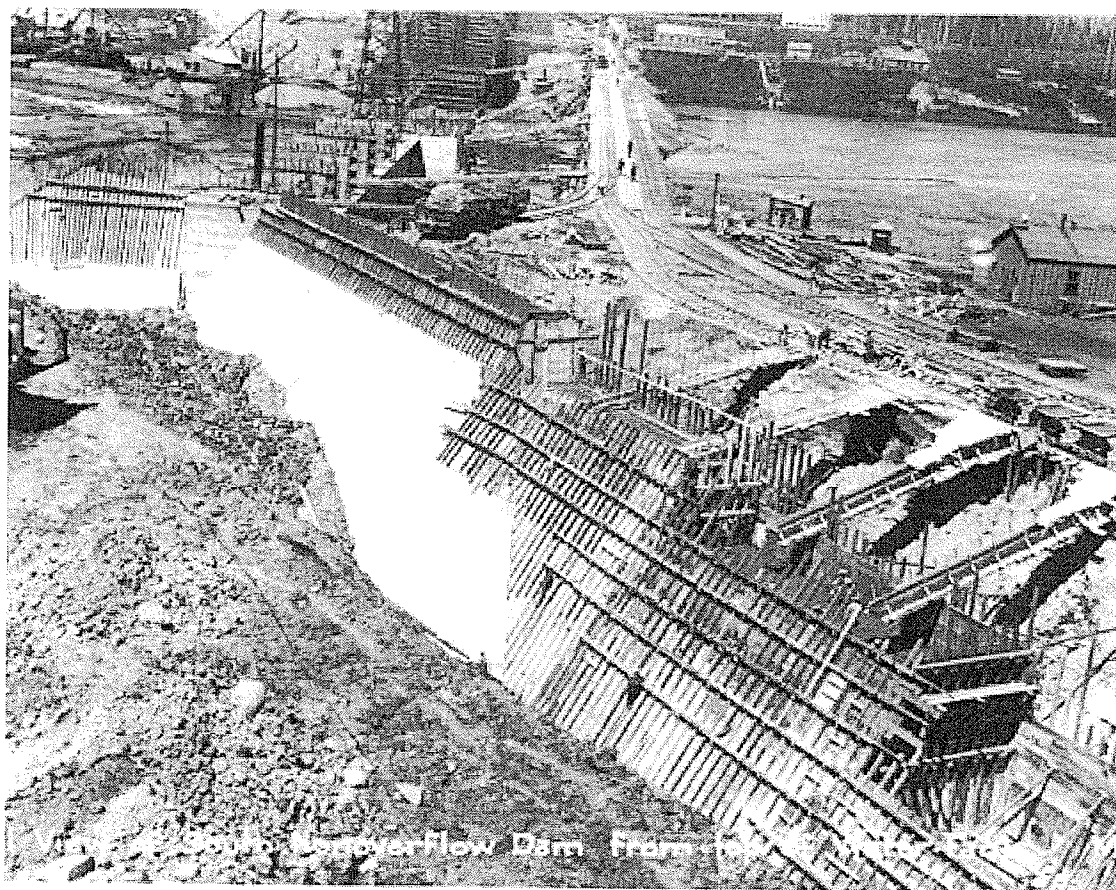


PHOTO 9 - May 29, 1930 South non-overflow dam - showing chute arrangement

Plate 33: Photo 9 – May 29, 1930 South non-overflow dam – showing chute arrangement.

Source: Manitoba Hydro, Civil and Geotechnical Departments, Generating Projects Division, *Seven Sisters Generating Station, Reference Volume-Concrete Construction and Concrete Repairs*, (Winnipeg: Manitoba Hydro, November 1975), photo 9.
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Plate 34: Grand Rapids, 1964 photo 11316SE.

Source: Dam Safety, Manitoba Hydro.

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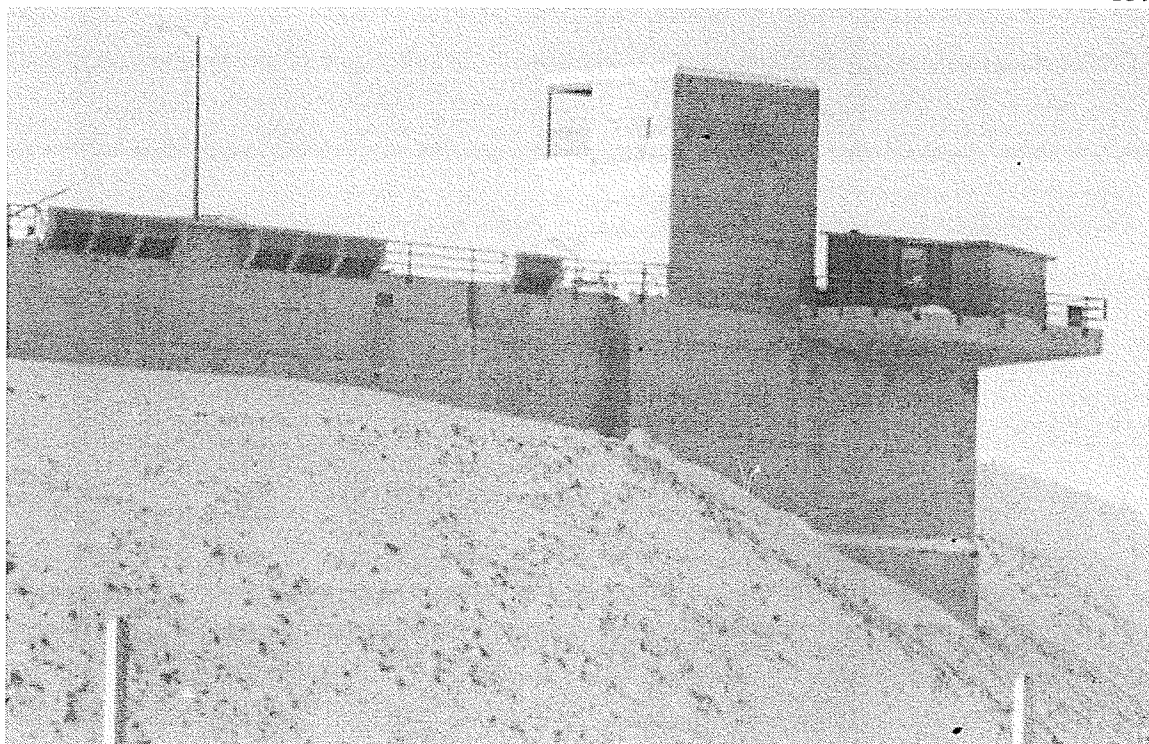


Plate 35: Grand Rapids, 1964 photo 11316-NE.

Source: Dam Safety, Manitoba Hydro.

Used With Permission of Manitoba Hydro

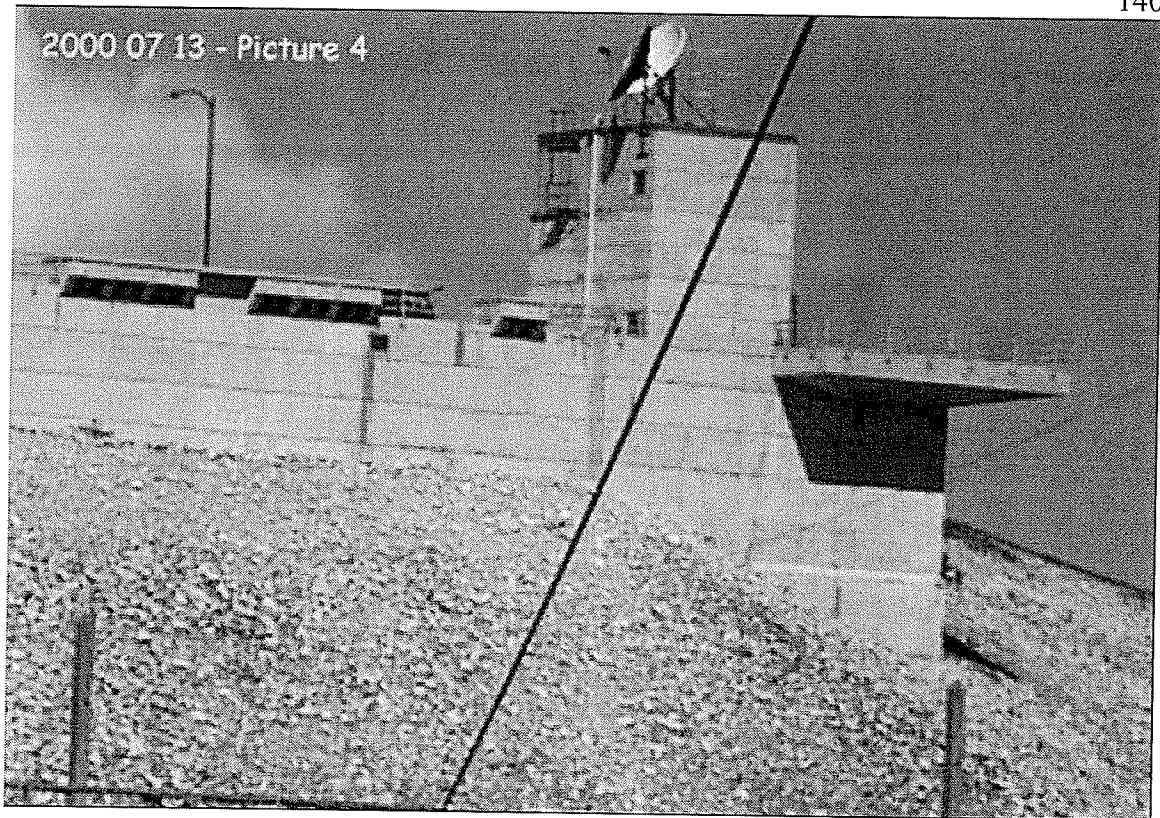


Plate 36: Grand Rapids photograph 2000 07 13 is a current photograph of 1964 image.

Source: Dam Safety, Manitoba Hydro.

Used With Permission of Manitoba Hydro

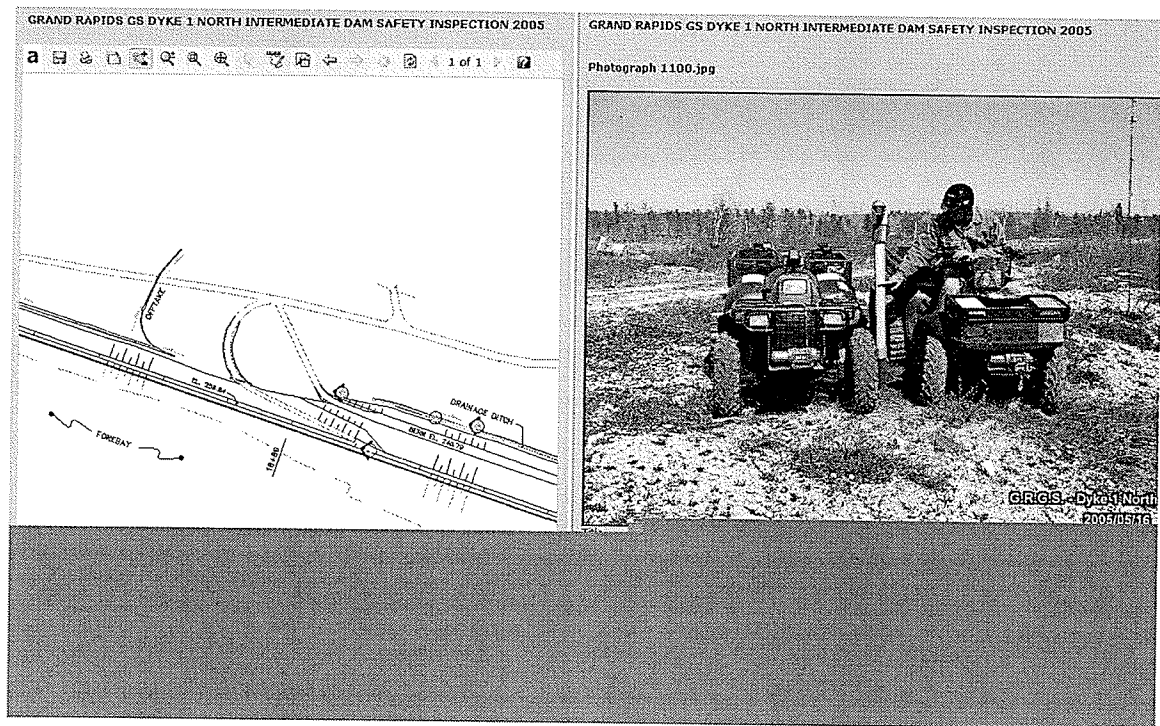


Plate 37: Example from the Picport database.

Source: Dam Safety, Manitoba Hydro.

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Records Classification & Retention Schedule					
Use this Primary to organize records that are evidence of support activities that contribute to the ongoing administration of a department, section or other administrative unit.					
AD - Corporate Administration					
Class Code AD 01	Record Series/Scope Note Activity Tracking	Office of Record Originating	Total Retention* C+1	Contains Vital Records No	Sensitivity Level Low
Records that are evidence of the monitoring of daily, monthly, annual or project-based business activities including Section activity and status reporting to Departmental management or the Executive Committee.					
Examples of records may include monthly activity reports, activity summaries, meeting minutes, quarterly business updates, project lists and status notes.					
Excludes: Place examples of documents here.					
					Remarks

Plate 38: Example of a Classification and Retention Schedule, focused on a specific Class Code.

Note: This example is both theoretical and hypothetical; it was created just as a visual reference for this thesis.

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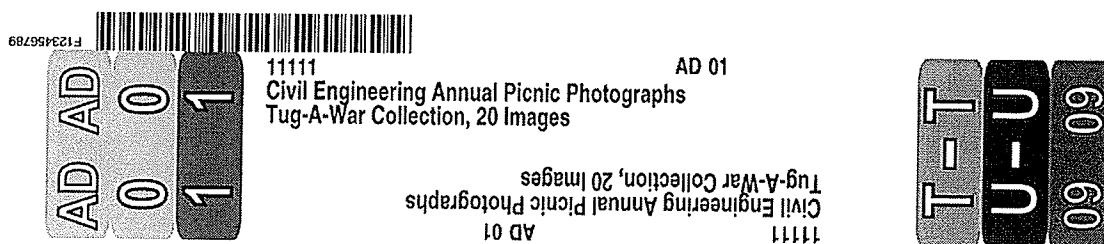


Plate 39: A Alpha Folder Label Design for Filing Photographic Collections.

Note: This example is both theoretical and hypothetical; it was created just as a visual reference for this thesis.

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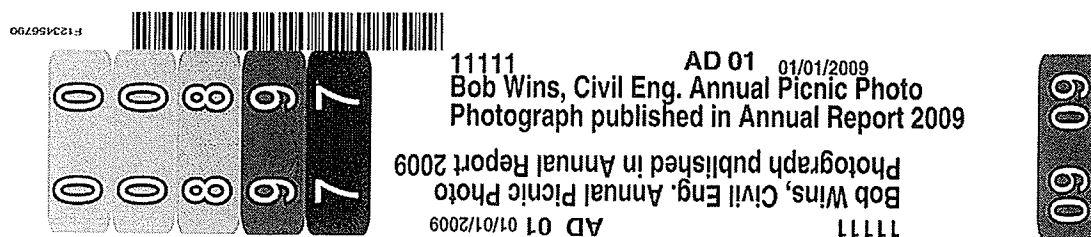


Plate 40: A Numeric Folder Label Design for Filing Photographic Collections.

Note: This example is both theoretical and hypothetical; it was created just as a visual reference for this thesis.

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Plate 41: Example of a File Room using standardized labels.
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Example 1:

 **CC01 Project Files (Photographs)**

 **Grand Rapids**

 2004-05

 2005-06

 2006-07

 2007-08

 2008-09

 **Seven Sisters**

 2004-05

 2005-06

 2006-07

 2007-08

 2008-09


Example 2:

 **CC02 Maintenance File (Photographs)**

 2003-04

 2004-05

 2005-06


 2006-07

 2007-08


 2008-09

Example 3:

 **Maintenance File (Photographs)**

 2004-05

 2005-06


 2006-07


 2007-08


 2008-09

Example 4:

 **CC03 Accident File (Photographs)**

 2007-08 (Promote)

 2007-08 (Transitory)

 2008-09 (Promote)


 2008-09 (Transitory)

Plate 42: Example of an Electronic File Plan for Photographs with a Variety of Folder Tree Titles that could be created by the User.

Note: This example is both theoretical and hypothetical; it was created just as a visual reference for this thesis. CC represents Class Code. The above examples use a generic Class Code within an electronic file plan. Although within DCO all records are classified at the document level, so you do not need to represent the Class Code in the file plan.

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