

NPS Form 10-900
(Rev. 8/86)
Utah Word Processor Format (02731)
(Approved 10/87)

OMB No. 1024-0018

MAR 08 1989

United States Department of the Interior
National Park Service

NATIONAL
REGISTER

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in Guidelines for Completing National Register Forms (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries. Use letter quality printer in 12 pitch, using an 85 space line and a 10 space left margin. Use only 25% or greater cotton content bond paper.

1. Name of Property Granite Hydroelectric Power Plant Historic District

historic name _____

other names/site number Granite, Granite Station, Utah Power Company

2. Location

street & number State Highway 152

n/a not for publication

city, town Salt Lake City

x vicinity

state Utah

code UT

county Salt Lake

code 036

zip code 84100

3. Classification

Ownership of Property	Category of Property	No. of Resources within Property	
<u>x</u> private	<u> </u> building(s)	contributing	noncontributing
<u> </u> public-local	<u>x</u> district	<u>6</u>	<u> </u> buildings
<u> </u> public-State	<u> </u> site	<u> </u>	<u> </u> sites
<u> </u> public-Federal	<u> </u> structure	<u>1</u>	<u> </u> structures
	<u> </u> object	<u> </u>	<u> </u> objects
		<u>7</u>	<u> </u> Total

Name of related multiple property listing:

Electric Power Plants of Utah

No. of contributing resources
previously listed in the
National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this x nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property x meets does not meet the National Register criteria. See continuation sheet.

Mary E. En
Signature of certifying official
UTAH STATE HISTORICAL SOCIETY
State or Federal agency and bureau

1-31-89
Date

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official

Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

☒ entered in the National Register.
 See continuation sheet

 determined eligible for the National Register. See continuation sheet

 determined not eligible for the National Register.

 removed from the National Register.

 other, (explain:)

Bruce J. Noble, Jr. 4/20/89

for Signature of the Keeper

Date

6. Functions or Use

Historic Functions
(enter categories from instructions)

Current Functions
(enter categories from instructions)

Industry/Processing/Extraction:
energy facility

Industry/Processing/Extraction:
energy facility

7. Description

Architectural Classification

(enter categories from instructions)

Materials

(enter categories from instructions)

Renaissance (powerhouse & transformer
house)

Late Victorian (residence)

foundation concrete

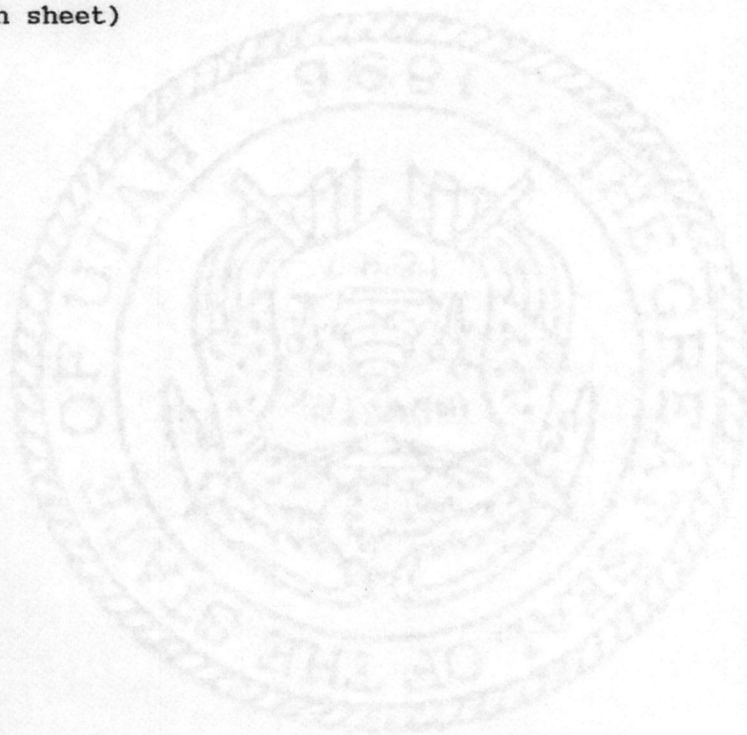
walls brick, wood

roof asphalt

other n/a

Describe present and historic physical appearance.

(see continuation sheet)



(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 7 Page 2

Constructed in 1896-97, the Granite Hydroelectric Power Plant is located approximately six miles southeast of Salt Lake City, Utah. The plant consists of a powerhouse, transformer house, small dam, wood conduit, steel penstock, and operators' camp within which are three residences and two ancillary structures. Of the ten structures, seven are contributing and three are non-contributing. The three non-contributing structures have been excluded from the historic district boundaries. Since its construction the plant has sustained some minor alterations, such as the removal of several residences. However, these changes do not compromise the plant's overall integrity of location, setting, design, materials, workmanship, feeling and association. The Granite plant continues to represent a late nineteenth-century, high-head hydroelectric power station.

General Setting

The power plant site is located at the mouth of Big Cottonwood Canyon on state highway 152, approximately six miles southeast of Salt Lake City, Utah. Big Cottonwood Creek flows west out of the canyon, paralleling the highway and at the plant site crosses under the road and into the Salt Lake City Big Cottonwood Treatment Plant, erected in 1959. This facility lies directly adjacent and south of the powerhouse. Water from the powerhouse's tailrace leaves the west side of the plant and enters the water treatment facility. The dam which diverts water for the Granite Plant is about 1.5 miles east of the powerhouse and lies just below the Stairs Station powerhouse. A largely wooden conduit connects the steel penstock above the Granite powerhouse with the dam.

The powerhouse site and its adjacent operators' camp consist of five buildings and two ancillary structures. At the west end are the three original brick structures--the powerhouse, transformer building and brick operator's residence. Later, in the mid to late 1920s, two more operators' cottages were added to the east side of the site on somewhat higher ground. A fairly steep and somewhat barren hillside rises to the north behind the camp. The creek and a landscaped parking strip separate the power plant buildings from the highway.

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 7 Page 3

1. Powerhouse

Erected in 1896-97, the powerhouse exhibits elements of the Second Renaissance Revival architectural style, very similar to Stairs Station. Rectangular-shaped and constructed of a local, sandy-colored brick, the building has a concrete foundation and a slightly gabled tar roof. A brick corbelled parapet wall with a concrete cap extends above the roof line. Each facade is divided into bays by pilasters which have a star-shaped tie rod anchor near the top. Within each bay is a 4/4 double hung window with a semi-circular arched 1-light transom, now painted over, and semi-circular arched corbelled lintel. The windows have sandstone sills. Lower windows are screened. Above the windows is a belt course with a decorative brick dentil band.

Within the central bay on the southeast side of the power plant is a large entrance. This opening contains a pair of wooden double folding doors under a metal I-beam lintel which supports a carved sandstone name plate in the round arched transom. The sign reads "Utah Power Company/Erected 1896." Decorative corbelling surrounds the arch. A small cyclone fenced substation lies outside the building on the southeast side. The southwest facade also contains an entrance in the central bay. Although somewhat smaller than the southeastern entrance with only a pair of wooden doors, this opening also has a corbelled semi-circular arched lintel and transom. Within the transom is a 3-light window with curved mullions. Both entrances are protected by metal screen gates. Next to the southwest entrance is a window which has a metal filler in the lower half and a stovepipe extending from the transom.

A new concrete cap and new brick has been added to repair the parapet within the last ten years. Although the new brick in the corbelling is noticeable, the brick pattern replicates the original and does not damage the building's architectural integrity.

Running the length of the northwest facade of the powerhouse is a concrete covered, arched brick cover for the receiver pipe to the penstock. Below this structure, waste water exits the powerhouse into the concrete-lined tail race and flows westerly into the city water treatment plant. At the north end of this facade is a

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 7 Page 4

screened door below a 2-light window with an arched transom. Like the southwest facade, the northeast facade has three bays, each with a window. However, the second window has been covered and a concrete block addition with an asphalt shingled shed roof and 2-light hopper window attached. Apparently, this structure was constructed to add indoor plumbing for the powerhouse.

The interior of the powerhouse consists of a single, spacious area. This has apparently undergone little alteration, although the generating equipment has been changed. Electricity at Granite is generated by Pelton wheels located on either side of a 12,470 volt Westinghouse a.c. generator. They operate on a head of approximately 430 ft. Originally, Granite Plant contained two turbine-generator units. These were replaced in recent years with the current single unit.

Other equipment inside the powerhouse includes storage batteries, a modern switchboard, a small sound-proof room for the convenience of the operators, a small diesel-powered back-up generator for the adjacent Big Cottonwood Water Treatment Plant, and an overhead travelling crane (bearing the inscription "Built by Silver Brothers/1896/Salt Lake City") with a capacity of approximately 10 tons. One of the most interesting features of the Granite Plant is located against the north wall of the powerhouse. It consists of tools--a lathe and drill press--driven by belts from a lineshaft. Power to the lineshaft was supplied by a belt attached to a tiny, approximately 15 in.- diameter Pelton wheel which is still in place but is no longer used. The Pelton wheel is located on a small concrete pad below the lineshafts. Another feature of the powerhouse that is worthy of note is the ceiling. Steel beams, laid cross-wise on top of the walls, ascend in a shallow pitch from either end of the powerhouse to a peak in the middle. The spaces between the beams is filled with arched brick vaults. Steel tie rods connect the steel beams.

Granite powerhouse has undergone some alterations since its original construction. Most importantly, the original turbine-generator units have been replaced and the corbelled parapet on top of the building has been reconstructed. As well, the adjacent Salt Lake City Big Cottonwood Treatment Plant has compromised somewhat the integrity of the powerhouse's setting. However, the

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 7 Page 5

powerhouse is still a recognizable, functioning high-head plant and the corbelling sensitively replicates the original pattern. Essentially, the building looks virtually the same as it did in the late 1890s. Thus the Granite Powerhouse retains integrity of design, setting, feeling, materials, workmanship, location, and association. It contributes to the historic district.

2. Transformer House

Another of the brick buildings at Granite Power Plant which dates from 1896-97 is the original transformer house, now used for storage. Located on the hillside above and northeast of the powerhouse, this is a rectangular-shaped, one-and-a-half story structure of the same local, sandy-colored brick as the powerhouse. Also similar to the powerhouse, the transformer house exhibits elements of the Second Renaissance Revival architectural style, but with less ornateness. Along the parapet wall which extends above three sides of the flat roof line is a course of corbelled brick. On the northeast side, where no parapet extends, rafter ends are exposed. The 2/2 double hung windows have concrete sills, semi-circular arched lintels and transoms but unlike the powerhouse windows, do not have brick corbelling. The entrance on the southeast facade contains a pair of wooden doors below a round arched, 3-light transom. Although the transom window has been boarded, the curved mullions remain visible. In the northwest side is another single wooden door with a wood-filled arched transom. Above the door is a delapidated wooden housing. Both the southwest and northeast facades contain segmental arched openings with a wooden sill for insulators. Virtually unaltered since its construction, the transformer house retains its integrity of location, setting, design, materials, workmanship, feeling and association. It is a contributing structure in the Granite Hydroelectric Power Plant Historic District.

3-4. Ancillary Buildings

On the northwest side of the powerhouse, near the tailrace are two sheds. Closest to the powerhouse is the oil house (no. 3)--a small, square structure of poured concrete with a slightly slopped concrete roof, no windows and a new heavy metal door. The other

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 7 Page 6

building was originally the coal shed (no. 4) but it now used for storage. It is a wood planked structure with a shed roof above exposed rafter ends, two entrances and an open window. Although the coal shed is in somewhat bad repair, both structures have undergone very little alteration and thus retain their integrity of location, setting, design, materials, workmanship, feeling and association. They both contribute to the historic district.

5-7. Operators' Camp

The original operator's residence (no. 5) is situated just east of the powerhouse. Constructed of the same type of brick as the powerhouse and transformer building, this cottage is square-shaped with an asphalt shingled hip roof and rests on a brick and concrete foundation. Under the eaves is a wide frieze wrapping around the building. Two interior brick corbelled chimneys extend beyond the roof line. In the front, or southwest, facade are pairs of 1/1 double hung windows, divided by a decorative wood element. Above the paired windows is a segmental arched wood transom and brick corbelled lintel. The corbelling extends partway down the sides of the windows. Other windows are single 2/2 double hung sashes with the same arch and corbelling as in the southwest facade. The front entrance on the southwest facade has concrete steps and a simple porch consisting of pairs of square porch posts, trellis work, and a slightly arched roof. Cantilevered rafters extend under the porch roof and rest upon a beam that intersects with the porch posts. The front porch was added sometime after the date of construction. Surrounding the opening for the wood door is a brick corbelled lintel, identically to the window lintels. In the rear of the building, which abutts the hillside, are several additions. A wood dormer with a gabled roof but no window extends above a wooden lean-to addition of drop siding. A cinder block extension has also been added in the rear, apparently for a fruit room. Behind these additions is an old coal shed constructed of wood planing with a shed roof of rolled asphalt. Much of the northeast and northwest facades are obscured by foliage. The residence is no longer occupied, having sustained damage during a flood and landslide in 1982. Currently, the county search and rescue team uses the structure for storage of equipment.

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 7 Page 7

Although this residence sustained some interior damage in the 1982 flood and has a small addition in the rear, it retains its integrity of location, setting, design, materials, workmanship, feeling and association. The house is a contributing element in the historic district.

Sometime in the mid to late 1920s, two other residences were added to the Granite power plant site. These structures and their outbuildings sit to the east and higher than the three original brick buildings. Because of this and their wood frame construction, the newer buildings can be easily distinguished from the older structures. Presently, the residence (no. 6) just east of the brick operator's house is used as an office. It is a rectangular-shaped, one-story cottage with an asphalt-shingled hip roof and a concrete foundation. Originally sided with drop siding, the structure now has asbestos shingles. A centrally situated corbelled brick chimney with a metal hood extends above the roof line. Windows are 1/1 double hung with 3-light hopper windows in the basement. Bungalow elements include broad overhanging eaves with exposed rafter ends and multipaned windows in a series of three 8-light casements with 2-light transoms on the southwest and southeast facades. The front entrance on the southwest side has concrete steps, a shed roof with square porch post and a wooden door with a 12-light window. The rear entrance on the northeast side has a 4-light wooden door and opens onto a concrete driveway. In the north corner is a glassed porch containing two sets of paired 4-light windows. Behind the house is a wood coal shed with a shed roof, now used for storage. Remnants of the marble control panel from the powerhouse are lying behind the coal shed. Compromised only by the addition of asbestos siding, this cottage retains its integrity of location, setting, design, materials, workmanship, feeling and association. It contributes to the historic district.

To the east of the office is the current operator's home (no. 7). Apparently extensively remodeled, the house now has an irregular plan with intersecting asphalt-shingled gables and rests on a concrete foundation. The original drop siding has been covered with asbestos shingles. A corbelled brick chimney is centrally located in the structure. Windows are 1/1 double hung sash and fixed 1-lights. A door faces the northeast in the rear porch area

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 7 Page 8

and the main entrance facing west has a 1-light door. Windows on the southeast facade have been replaced with 1/1 double hung aluminum windows. To the east of this residence is a new wood-frame, gable roofed structure constructed and owned by the current caretaker. (This building has not been counted among the camp's structures.) Because considerable remodeling has obscured the original style, shape and mass of this operator's cottage, it has lost its historic integrity and does not contribute to the historic district. Thus, it has been excluded from the historic district.

An historic garage originally stood between the office and the current operator's home. During the flood and landslide in 1982, this building was badly damaged and subsequently demolished. Constructed with a gable roof and board-and-batten siding, a new two car garage with a concrete driveway and 2-light slider windows has replaced the demolished structure.

The addition of the new garage and renovation to the current operator's house are the only major changes to the Granite camp since the mid-1920s. In 1925, three structures located in the area of the present-day highway, whose functions are unknown, were demolished when Highway 152 was constructed.

8. Dam

The dam for the Granite plant is located just below the tailrace of Stairs Station. Water leaving Stairs' turbines flows directly into the intake of the dam for Granite. The Granite dam is basically a reinforced concrete structure. It has a concrete base, sloped on its downstream side. Resting on top of the base are two concrete piers, one on the south end of the dam and the other at the middle. The north end of the dam consists of a box-like, reinforced concrete intake structure. Between the piers and between the center piers and the intake are wood flashboards set in inclined steel I-beams. Across the top of the dam is a walkway consisting of steel grate. The walkway is flanked by a railing, about one-half of which is made of wood and the other half of steel pipe. The intake structure is topped by a small gatehouse covered with either corrugated metal or fiberglass.

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park ServiceNATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEETGranite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.Section number 7 Page 9

The dam at the Granite plant exhibits good integrity. Accounting records, however, indicate that the dam was built in 1945 to replace the original structure. Because of this relatively recent construction date, the dam does not contribute to a historic district. Therefore, it has been left outside of the Granite Hydroelectric Plant Historic District boundaries.

9. Conduit

The conduit for Granite Plant begins at the dam, just below the Stairs Station tailrace. After leaving the intake, the conduit runs west, down Big Cottonwood Canyon toward Granite Station. About the first 400 ft. of the conduit consists of reinforced concrete, rectangular in section. Nearly all of this portion of the conduit lies underground and part of it lies underneath Highway 152. The conduit emerges from underneath the ground on the north side of Highway 152. At that point the conduit turns into a wood flume, rectangular in section, with boards laid across the top to allow workers to walk along it and check for breaks and other damage requiring maintenance. The wood flume is relatively level and is located on the north side of Big Cottonwood Canyon. The total length of the flume is about 1.5 miles. Over its length, the flume crosses nine trestles and passes through one tunnel. At the middle of the flume is a small wood-frame storage shed, called "the half-way shack." The flume ends at a concrete headworks at the top of the Granite Plant penstock. The headworks, which is covered by a small wood-frame shed, houses trashracks and a valve. Approximately the last 3,900 ft. of the flume consists of "half-round." The half-round portion of the flume is not rectangular in section; instead it looks like the lower half of a wood-stave pipe.

The Granite conduit retains good integrity. However, like the dam, the conduit is of relatively recent construction. The half-round portion dates from the 1940s. Parts of the rest of the flume may have been built before 1940, but substantial portions of it have been replaced since that time. The Granite conduit, because it is situated on a canyon wall that is steep and rocky, is often subject to damage by falling rocks (as well as vandalism by youths from nearby Salt Lake City). The conduit needs frequent maintenance. Operators at Granite devote a substantial amount of

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 7 Page 10

time replacing boards and rebuilding sections as needed. Reconstruction and maintenance carried out after 1940 have substantially compromised the historic character of the original conduit. Because of alterations it now no longer retains integrity of design, materials, workmanship, feeling, and association. The conduit does not contribute to the historic district and therefore is not included within the district boundaries.

10. Penstock

The Granite Plant penstock begins at the end of the conduit, on the north edge of Big Cottonwood Canyon, high above the Granite Powerhouse. Made of rivetted steel pipe, the penstock is 1,250 ft. in length. The difference in elevation between the top of the penstock and the powerhouse is approximately 450 ft. Some portions of the penstock lie underground, but much of the structure is visible, making it a distinctive component in the Granite hydroelectric power plant complex.

The penstock retains integrity of design, setting, materials, workmanship, feeling, location, and association. It contributes to the historic district.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties: nationally x statewide locally

Applicable National Register Criteria x A B x C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance

(enter categories from instructions)

Period of Significance

Significant Dates

Industry

1896 - c. 1928

1896, 1915, 1921,

Engineering

c. 1928

Significant Person

Architect/Builder

n/a

unknown/unknown

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

(see continuation sheet)

 x See continuation sheet

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 8 Page 2

The Granite Station is eligible for the National Register of Historic Places under Criterion A and C. Containing a penstock, powerhouse, and operators' camp, this 1896-7 hydroelectric plant is significant within a local context because it embodies the distinct characteristics of a late-nineteenth century hydroelectric development. Situated in the Big Cottonwood Canyon of the Wasatch Range, Granite Station's engineering features were ideally suited to its mountainous setting. Power companies built numerous high-head plants in Utah during the late nineteenth and early twentieth centuries. They were the most efficient type of hydroelectric technology for generating power on Utah's relatively small mountain streams. The plant is also significant because it represents the early expansion of the hydroelectric power industry in Utah during the late 1890s, as companies scrambled to meet the demand for electricity from large urban markets, which needed power for streetcars, lighting, and other operations. With new hydroelectric technology, entrepreneurs utilized the nearby Wasatch Mountains with their steep, narrow canyons and streams to produce electricity. With additional power, streetcar systems extended their lines further from the Salt Lake City center, allowing for expansion of the urban environment. Although somewhat altered, the Granite Station still clearly represents the early expansion of the hydroelectric power industry in Utah.

Founded in 1847 by Mormon pioneers, Salt Lake City was the major center for settlement along the Wasatch Front. Established first as an agricultural community, the city became the seat of state government and eventually evolved into Utah's industrial center. As the young city of Salt Lake grew in size and population, the need for a street railway became apparent to city leaders. First

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 8 Page 3

begun in 1872, mule-drawn cars serviced the central part of the city. By 1889, however, the Salt Lake City Railroad Company extended and electrified the system with power generated in a steam plant. Encouraged by the success of the Salt Lake City Railroad and lax franchise laws, several rival streetcar companies arose in 1890, the most serious competitor being the Rapid Transit Company which also utilized steam generation. A period of intense competition ensued as the two companies fought to capture control of the increasing demand for citywide transportation.

By 1896, the Salt Lake City Railroad Company employed 175 men to operate 43 miles of streetcar line. Expansion motivated company executives, such as President A.W. McCune, to search for a cheaper and less polluting source of power. By this time, improved technology using alternating current allowed for the transmission of electricity over long distances, thus enhancing the benefits of converting from steam to water power. McCune and company director Francis Armstrong (a former Salt Lake City mayor) began scouting for feasible water-power sites in 1895 in order to utilize hydroelectric generation.

Locating a site near the mouth of Big Cottonwood Canyon in 1895, Salt Lake City Railroad Company directors organized the Utah Power Company to construct a hydroelectric plant. McCune, Armstrong, SLCRC Vice President R.C. Chambers, John E. Dooley, R. MacIntosh and O.P. Arnold formed the new company's board of directors. Situated approximately thirteen miles east of Salt Lake City, the company's powerhouse site lay in the vicinity of the defunct Granite Paper Mill, which had burned in 1892. Eventually, the name "Granite" came to refer to the UPC's Big Cottonwood plant.

After appropriating water in the Big Cottonwood Canyon, the Utah Power Company began construction of the plant and transmission lines to the streetcar substation in 1896. A dispute with Frank H. Gillespie, who claimed prior rights in Big Cottonwood and attempted to build a flume over UPC's dam, distracted workers for a brief time in 1896. However, UPC was able to nullify his efforts. UPC employees constructed a 8,342-foot wood flume from the dam and intake located just west of the Big Cottonwood Power Company's Stairs Station tailrace to a brick and concrete powerhouse at the mouth of the canyon. From the flume to the

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 8 Page 4

powerhouse, a 48-inch riveted steel penstock dropped 440 feet to produce 190 pounds per square inch of water pressure in the powerhouse. Within this structure, two Pelton water wheels and two Westinghouse generators operated. Behind the powerhouse in another brick building, transformers boosted the 400 volt alternating current pressure to 12,000 volts. Transmission lines on steel poles carried the electricity to Salt Lake City where it was converted to 550 volts direct current for the electric streetcars.

Because of the plant's need for constant attention and its relative remoteness from Salt Lake City, the company erected housing for its employees near the powerhouse, generally called the operators' camp. A brick cottage was built in 1896 and apparently two other dwellings in 1898. Several other sheds and outbuildings also dotted the site. By 1928, the operators' camp included five residential structures.

On February 25, 1897, the Utah Power Company generators began producing electricity for Salt Lake City Railroad streetcars. The Granite plant disappointed its owners, however. For the next two years electrical service from the plant was irregular, forcing the railway company to overhaul its steam plant and put it back into operation. Big Cottonwood Creek proved vulnerable to slides and freezing which curtailed the water flow and thus disrupted street car transportation from a few hours to several days. At these times, the steam plant took over power generation, doubling the cost of the electricity.

Despite its initial difficulties, the Granite Station appears to have produced more electricity than the streetcars required. In 1898, the Utah Power Company contracted with the Pennsylvania Smelting Company to supply 400 horsepower at \$50 per horsepower a year. Transmission lines from Granite were strung to the smelter in Sandy, southwest of Salt Lake City. The Union Light and Power Company acquired this contract in 1899.

In 1901, after growing public discontent over the destructive competition between the rival streetcar systems, McCune bought controlling shares in Salt Lake's streetcar companies, including the Utah Power Company, and organized the Consolidated Railway and

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 8 Page 5

Power Company. Another merger occurred in 1904 when Consolidated joined with Utah Light and Power Company to form the Utah Light and Railway Company. The Granite plant was part of this corporation until 1914 when Utah Light and Railway consolidated with the Salt Lake Light and Traction Company to form the Utah Light and Traction Company. In 1915, this parent firm leased the Granite generating station to the Utah Power and Light Company. The Utah Power Company retained its corporate identity on paper until 1935 when it deeded Granite to the Utah Light and Traction Company, a predecessor firm to Utah Power and Light--the Granite Station's present owner.

After 1915, in an effort to promote greater efficiency from its power plants, Utah Power and Light made improvements to its facilities. At Granite, the company apparently added at least two and probably five more operators' cottages. Only two of these house remain as three were removed with the construction of Highway 152 in the mid-1920s. It is likely that these three residences were similar in form and style to the existing wood-frame dwellings. Other changes to the operators' camp occurred in the 1980s, as a flood damaged several of the house and destroyed a garage. The garage has since been replaced.

Because of the post-1927 construction that occurred at Granite, the period of significance for the district has been extended one year beyond the period of significance outlined in the multiple property nomination form. Construction that occurred at Granite after the 1890s did not alter the overall character of the plant, but such construction was important because it reflected UP&L's concern for creating and operating an efficient network of hydroelectric plants.

9. Major Bibliographical References

Previous documentation on file (NPS):

☒ See continuation sheet

☐ preliminary determination of
individual listing (36 CFR 67)
has been requested
☐ previously listed in the National
Register
☐ previously determined eligible by
the National Register
☐ designated a National Historic
Landmark
☐ recorded by Historic American
Buildings Survey # _____
☐ recorded by Historic American
Engineering Record # _____

Primary location of additional data:

☒ State Historic preservation office
☐ Other State agency
☐ Federal agency
☐ Local government
☐ University
☒ Other

Specify repository:

Utah Power and Light Company

10. Geographical Data

Acreeage of property c. 1.6 acres

UTM References

A	<u>1/2</u>	<u>4/3/3/9/1/0</u>	<u>4/4/9/6/5/6/0</u>	B	<u>1/2</u>	<u>4/3/4/1/7/0</u>	<u>4/4/9/6/8/4/0</u>
	Zone	Easting	Northing		Zone	Easting	Northing
C	<u>/</u>	<u>/ / / / /</u>	<u>/ / / / /</u>	D	<u>/</u>	<u>/ / / / /</u>	<u>/ / / / /</u>

☐ See continuation sheet

Verbal Boundary Description

☒ See continuation sheet

Boundary Justification

☒ See continuation sheet

11. Form Prepared By

name/title Mark Fiege/Janet Ore, Consulting Historians

organization for Utah Power and Light Co.

date November 1988

street & number 144 South 900 East #10

telephone (801) 532-5456

city or town Salt Lake City

state Utah

zip code 84102

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

Section number 9 Page 2

Cole, Brad, and Johnson, Mike. Utah State Historic Preservation Office, Structure/site Information Form. "Granite Power Station." 12 July 1987.

Cravath, J.R. "Power Transmission in Utah." Electrical World and Engineer 37 (30 March 1901): 503-508.

Hardesty, W.P. "The Water Power and Electric Transmission Plant of the Big Cottonwood Power Company." Engineering News 36 (1 October 1896): 220-222.

Utah Power and Light Company, Cadastral Department. File #2319 "Granite Project."

----- Engineering Files Department. Drawings No. UB-20135, UA-15803.

----- Property Accounting Department. Expenditure Requisition File, Granite Plant.

----- "Utah Light and Traction Company, History of Origin and Development." Unpublished report prepared in connection with Federal Power Commission Request Order dated May 11, 1937.

Utah Historic Society. Utah Power and Light Power Plant, Big Cottonwood Canyon Historic Photographs.

(Rev. 8-86)

Utah Word Processor Format (02741)

Approved 10/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Granite Hydroelectric Plant
Historic District, vac. Salt Lake
City, Salt Lake County.

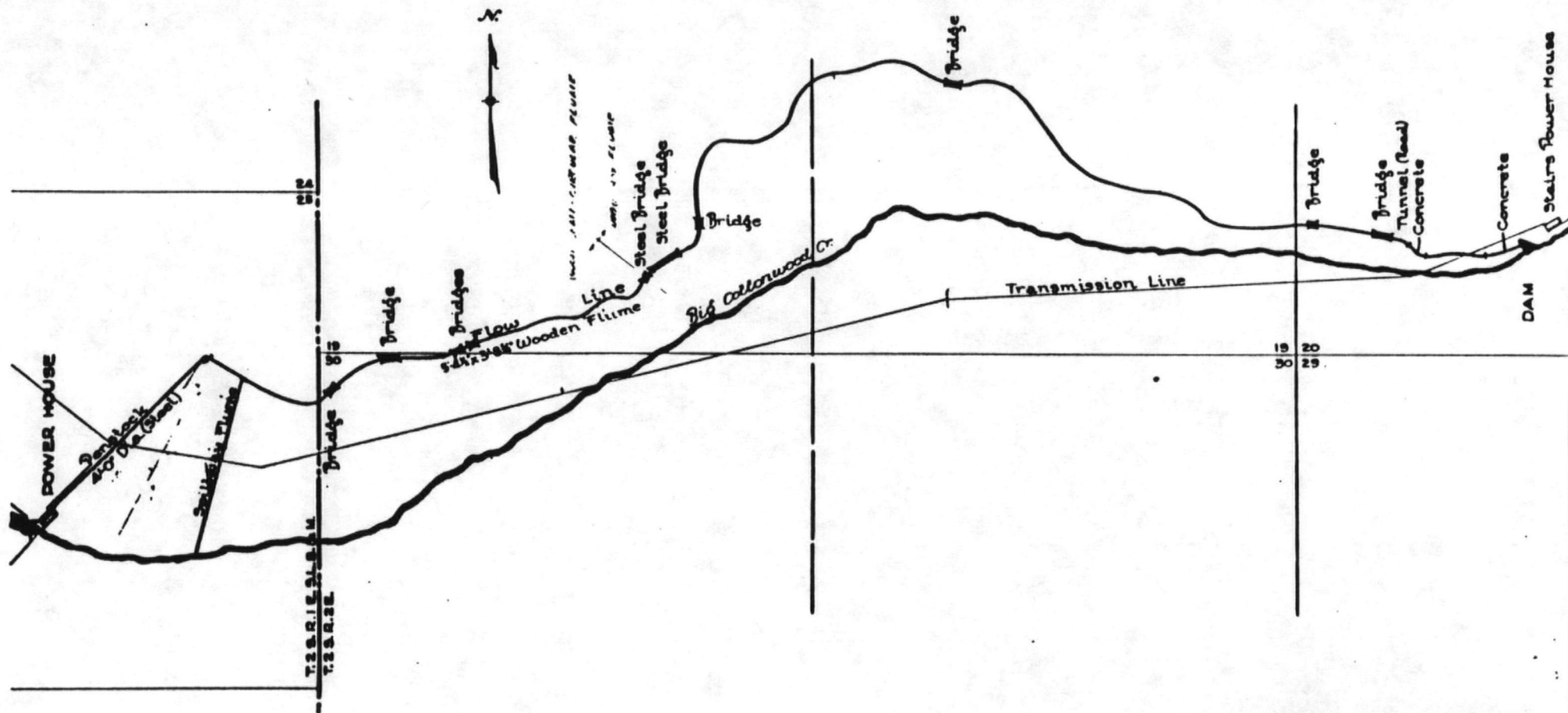
Section number 10 Page 2

Verbal Boundary Description:

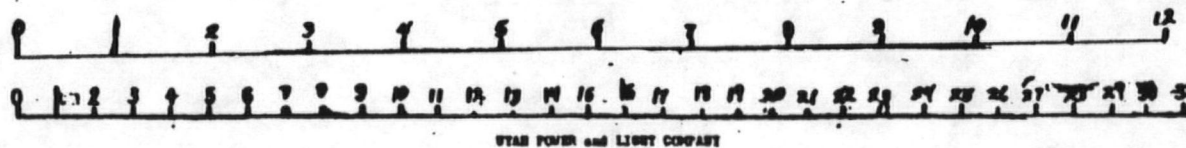
The Granite Hydroelectric Plant Historic District is located in the NE quarter of section 25, T2S, R1E, USGS Quad Draper, Utah. The historic district boundary begins 10 ft. SW from the SE corner of the powerhouse then proceeds NW 90 ft. to the tailrace. It then proceeds NE 76 ft. to a point behind the coal shed. From there, the boundary proceeds E 67 ft., roughly paralleling the bottom of the hill, to within 10 ft. of the penstock. The boundary then parallels the penstock NE for 1,250 ft. to the top of the hill where it cuts across the top of the penstock, turns 90 degrees, and parallels SW within 10 ft. of the penstock for 1107 ft.. At this point (155 ft. NE of the powerhouse), the boundary makes a 90 degree angle and travels SE 152 ft., then turns 90 degrees SW for 110 ft., then travels W for 171 ft., roughly contouring the edge of the paved driveway and bottom of the hill, to the Point of Beginning near the SW corner of the powerhouse.

Boundary Justification:

The boundary for the Granite Hydroelectric Plant Historic District encompasses those historic, intact structures associated with the operation of the facility. The boundary generally encompasses the ground cleared and maintained for the purposes of operating the plant, including the penstock. The boundary excludes modern buildings or buildings and structures which have lost their historic integrity. The boundary also excludes the Big Cottonwood Water Treatment Plant.



GRANITE DEVELOPMENT
GENERAL MAP OF FLOW LINE
UTAH POWER & LIGHT CO.
SALT LAKE CITY, UTAH
Scale: As shown. Dec. 1935
UB-20135



Granite Photograph Log:

Granite Hydroelectric Plant Historic District
near Salt Lake City, Utah

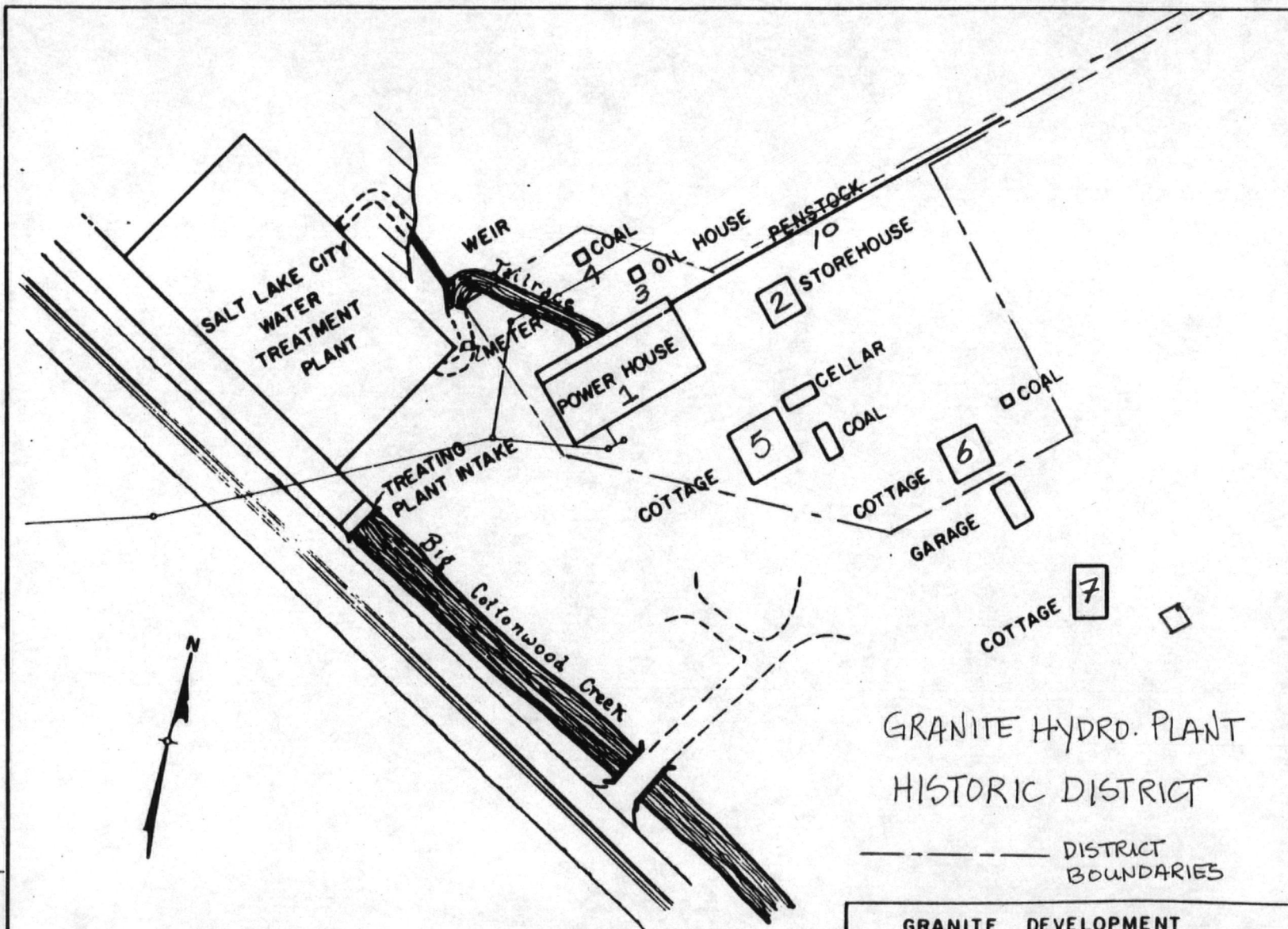
Mark T. Fiege, photographer

July 1988

original negatives at Utah SHPO

Photo #:

1. Granite powerhouse (no. 1), view to north.
2. Granite powerhouse (no. 1) entrance, view to north.
3. Penstock (no. 10), view uphill, to northeast.
4. Penstock (no. 10), foreground, looking southwest (downhill) toward Granite powerhouse site.
5. Operator's residence (no. 5), view to north.
6. Operator's residence (no. 6), view to east.



GRANITE HYDRO. PLANT HISTORIC DISTRICT

DISTRICT
BOUNDARIES

GRANITE DEVELOPMENT
GENERAL MAP OF GROUNDS
SALT LAKE CITY, UTAH

UTAH POWER & LIGHT COMPANY
SALT LAKE CITY, UTAH

SCALE AS SHOWN

DATE 22 JAN 75

UB-20166

DRAWN BY V.R. HUGHES
CHECKED BY J.L. F.
CORRECT

APPROVED: *J.R. King*
CIVIL ENGINEER

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation Sheet

Section number _____ Page _____

Electric Power Plants of Utah MPS

DATE LISTED

COVER

4/20/89

1. Upper Beaver Hydroelectric Power Plant Historic District Substantive Review 4/20/89
2. Cutler Hydroelectric Power Plant Historic District Substantive Review 4/20/89
3. Devil's Gate--Weber Hydroelectric Power Plant Historic District Substantive Review 4/20/89
4. Granite Hydroelectric Power Plant Historic District Substantive Review 4/20/89
- SKF 5. Stairs Station Hydroelectric Power Plant Historic District Substantive Review 4/20/89
6. Fountain Green Hydroelectric Plant Historic District Substantive Review 4/20/89
7. Upper American Fork Hydroelectric Power Plant Historic District Substantive Review 4/20/89
8. Snake Creek Hydroelectric Power Plant Historic District Substantive Review 4/20/89
9. Santa Clara Hydroelectric Power Plant Historic District Substantive Review 4/20/89
10. Pioneer Hydroelectric Power Plant Historic District Substantive Review 4/20/89

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Granite Hydroelectric Power Plant Historic District

MULTIPLE NAME: Electric Power Plants of Utah MPS

STATE & COUNTY: UTAH, Salt Lake

DATE RECEIVED: 3/08/89 DATE OF PENDING LIST: 3/21/89
DATE OF 16TH DAY: 4/06/89 DATE OF 45TH DAY: 4/22/89
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 89000283

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL: N DATA PROBLEM: Y LANDSCAPE: N LESS THAN 50 YEARS: N
OTHER: N PDIL: N PERIOD: N PROGRAM UNAPPROVED: N
REQUEST: N SAMPLE: N SLR DRAFT: N NATIONAL: N

COMMENT WAIVER: N

☒ ACCEPT ☐ RETURN ☐ REJECT 4/20/89 DATE

ABSTRACT/SUMMARY COMMENTS:

Significant for industry and engineering under criteria A & C.

RECOM./CRITERIA Accept - A, C
REVIEWER Noble
DISCIPLINE Historian
DATE 4/20/89

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

CLASSIFICATION

☐ count ☐ resource type

STATE/FEDERAL AGENCY CERTIFICATION

FUNCTION

☐ historic ☐ current

DESCRIPTION

☐ architectural classification
☐ materials
☐ descriptive text

SIGNIFICANCE

Period Areas of Significance--Check and justify below

Specific dates Builder/Architect
Statement of Significance (in one paragraph)

☐ summary paragraph
☐ completeness
☐ clarity
☐ applicable criteria
☐ justification of areas checked
☐ relating significance to the resource
☐ context
☐ relationship of integrity to significance
☐ justification of exception
☐ other

BIBLIOGRAPHY

GEOGRAPHICAL DATA

☐ acreage ☐ verbal boundary description
☐ UTM's ☐ boundary justification

ACCOMPANYING DOCUMENTATION/PRESENTATION

☐ sketch maps ☐ USGS maps ☐ photographs ☐ presentation

OTHER COMMENTS

Questions concerning this nomination may be directed to

_____ Phone _____

Signed _____ Date _____



GRANITE POWERHOUSE

R 9 F 34

PHOTO # 1

Salt Lake County UT



UTAH POWER COMPANY
ERECTED
1896





GRANITE PLANT

PENSTOCK & OPERATOR'S CAMP

R 10 F 9

PHOTO NO. 4

Salt Lake County UT





GRANITE PLANT HISTORIC DISTRICT
OPERATOR'S RESIDENCE

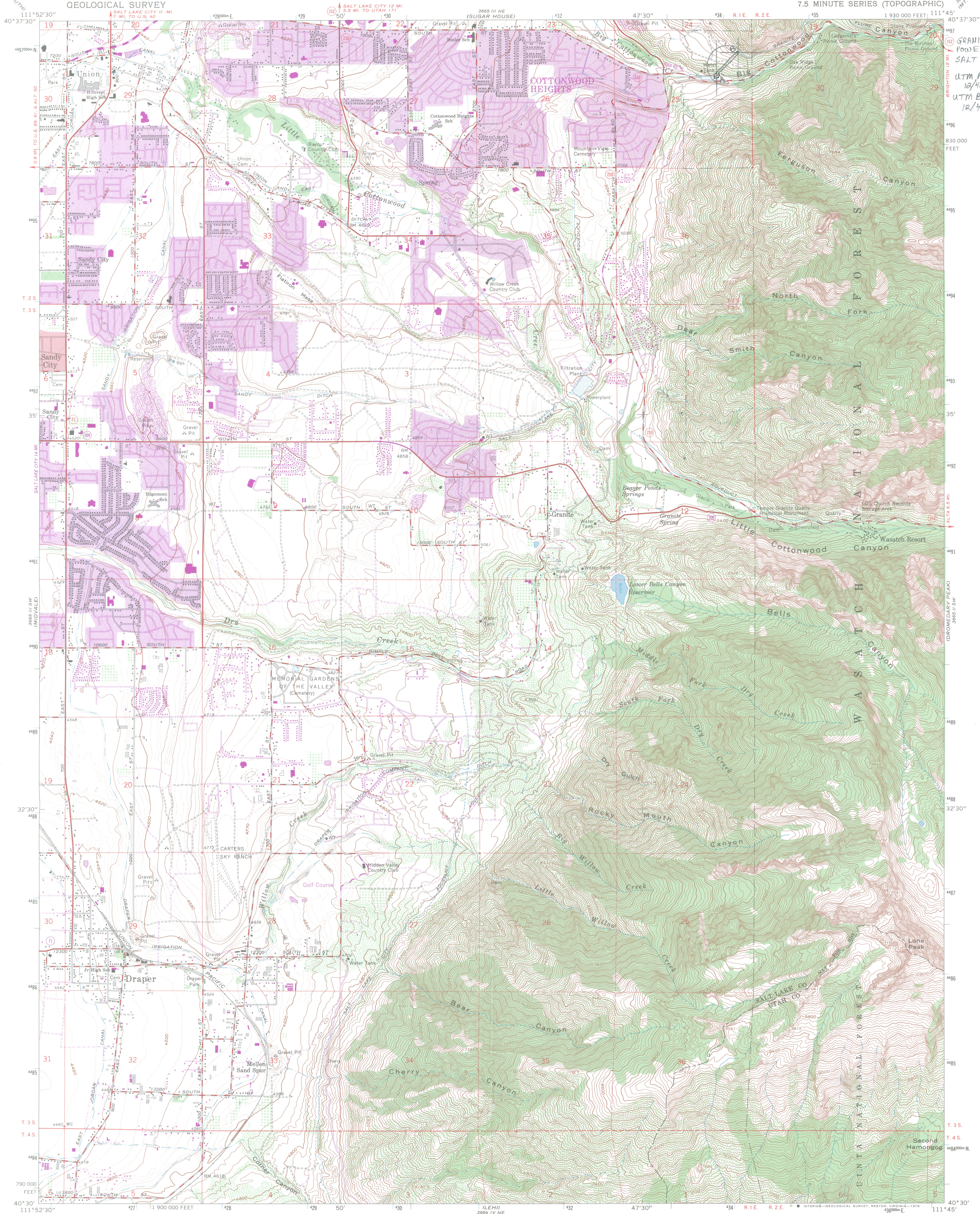
R11 F 25

PHOTO NO. 6

Salt Lake County UT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

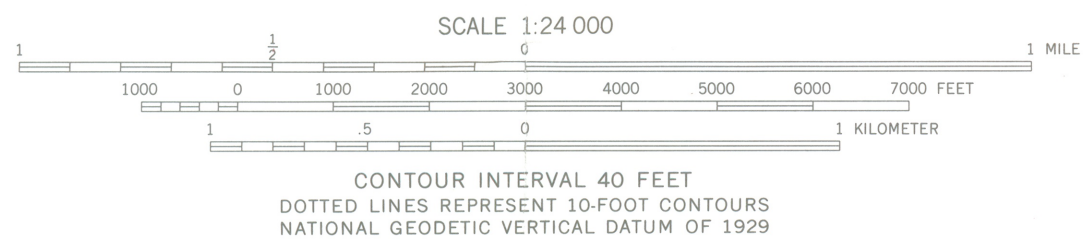
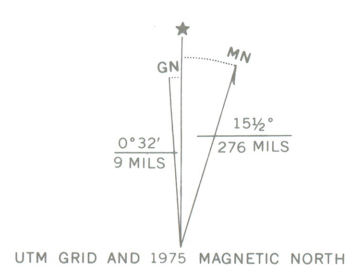
DRAPER QUADRANGLE
UTAH
7.5 MINUTE SERIES (TOPOGRAPHIC)



GRANITE HYDROELECTRIC
POWER PLANT, vac. SANDY,
SALT LAKE COUNTY

UTM A:
12/433910/4496560
UTM B:
12/434170/4496840

Mapped, edited, and published by the Geological Survey
Control by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial photographs
taken 1950 and planimetric surveys 1925 and 1927. Revised from
aerial photographs taken 1962. Field checked 1963
Polyconic projection. 1927 North American datum
10,000-foot grid based on Utah coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks,
zone 12, shown in blue
Red tint indicates area in which only landmark buildings are shown
Where omitted, land lines have not been established
Revisions shown in purple compiled from aerial photographs
taken 1969 and 1975. This information not field checked
Purple tint indicates extension of urban areas



ROAD CLASSIFICATION
Heavy-duty ——— Light-duty ———
Medium-duty ——— Unimproved dirt ———
State Route

DRAPER, UTAH
N4030—W1145/7.5

1963
PHOTOREVISED 1969 AND 1975
AMS 3665 III SE—SERIES V897



**SALT LAKE COUNTY PUBLIC WORKS DEPARTMENT
PLANNING DIVISION**

2001 S State St #N3700
Salt Lake City, Utah 84190-4200
468-2061

COMMISSIONER
JOHN D. HISKEY

Acting Director of Public Works
ROMNEY M. STEWART

DIVISION DIRECTOR
JEROLD H. BARNES, AICP

November 21, 1988

ASSOCIATE DIRECTOR
of
Public Works
R. T. Holzworth, P.E.
468-2711

**PLANNING
DIVISION
SECTIONS**

Land Use
Wm Marsh III
468-2061

Plans & Research
Jerold Barnes
468-2061

Redevelopment
Clair Hardman
468-2061

Administration
468-2061

Mr. Wilson G. Martin
Program Manager &
Deputy State Historic Preservation Officer
State of Utah
Division of State History
Department of Community & Economic Development
300 Rio Grande
Salt Lake City UT 84101-1182

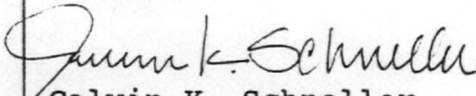
Mr. Martin:

Thank you for your letter regarding the nomination of the Stairs and Granite Hydroelectric Power Plants to the National Register of Historic Places.

The Salt Lake County, Public Works Department, Planning Division, supports adding these sites to the National Register. The Planning Division is in the process of completing the Preliminary Master Plan for the Wasatch Canyons which includes Big Cottonwood Canyon. Designation of these sites as Historic Places will not conflict with the recommendations of the Master Plan. We believe preservation of these sites will be a benefit to the canyon by preserving some of the history of the canyon.

We compliment your effort to preserve these historic structures and appreciate the opportunity to respond.

Sincerely,


Calvin K. Schneller
Senior Planner

CKS/bja

cc: Commissioners
Romney M. Stewart
R. Terry Holzworth
Jerold H. Barnes