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United States Department of the Interior
National Park Service

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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 Cutler Hydroelectric Power Plant Historic District

historic name

other names/site number Cutler Plant, Cutler Dam

2. Location

street & number Utah State Highway 30 n/a not for publication

city, town Beaver Dam x vicinity

state Utah code UT county Box Elder code 003 zip code 84306

3. Classification

Ownership of Property	Category of Property	No. of Resources within Property	
		contributing	noncontributing
x private	___ building(s)		
___ public-local	x district	9	___ buildings
___ public-State	___ site	___	___ sites
___ public-Federal	___ structure	10	___ structures
	___ object	___	___ objects
		19	___ 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.

Max J Evans — 1.31.89

Signature of certifying official — Date

UTAH STATE HISTORICAL SOCIETY

State or Federal agency and bureau

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 — Bruce J. Noble, Jr. — 4/20/89

___ determined eligible for the National Register. ___ See continuation sheet

___ determined not eligible for the National Register.

___ removed from the National Register.

___ other, (explain:) _____

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)
	foundation concrete
Art Deco (powerhouse & shop)	walls brick, asbestos
Bungalow & Craftsman (residences)	
	roof copper
	other n/a

Describe present and historic physical appearance.

(see continuation sheet)

x See continuation sheet

Built in 1927, Cutler hydroelectric station is located on the Bear River in north central Utah. The plant consists of a dam, conduit, surge tank, penstock, powerhouse, shop, operator's village, and ancillary structures. Since its construction, Cutler has sustained few alterations. Most notably, the operator's houses have been covered with new siding material. Overall, however, Cutler maintains integrity of location, setting, design, materials, workmanship, feeling, and association. Cutler is an outstanding example of a relatively large, low-head hydroelectric plant dating from the late 1920s.

General Setting

Cutler Station is located on the Bear River in northeastern Utah. The Bear originates in the Uinta Mountains of Utah and is about 350 miles long. From the Uintas, the river flows north into Wyoming, curves through Utah again before re-entering Wyoming, and then flows into southeastern Idaho. At Soda Springs, the Bear bends around the northern tip of the Wasatch mountains and heads toward the south, crossing into Utah again before emptying into the Great Salt Lake.

Cutler Station is actually part of a much larger system of hydroelectric power development and water conservation that is concentrated on the Bear River drainage. The facility is one of six hydroelectric plants on the Bear River (one of these is of recent construction), all operated by Utah Power and Light. UP&L's Bear River hydroelectric power system also encompasses Bear Lake, a large body of water about 20 miles long and 7 miles wide, located in northeastern Utah and southeastern Idaho. Although natural, Bear Lake today essentially serves as a reservoir for irrigation and hydroelectric power. Canals from upper Bear River allow spring runoff to be diverted into the lake and stored there. During the dry months, UP&L's Lifton Pumping Station pumps water from the lake back into the Bear River, thereby supplying hydroelectric plants and irrigation systems downstream.

The Cutler Power Plant itself is located approximately 15 miles west of Logan, Utah and 22 miles east of Tremonton, Utah. Access to the site is gained through a county road which leads north from state highway 30. Situated in the Bear River Canyon, the plant

lies in a steep and narrow gorge formed as the Bear River wends its way from the Cache Valley--about 2 miles east--through the Wasatch Mountains and into the Great Salt Lake, 25 miles west. Here, the Cutler Reservoir retains water for hydroelectric generation. Grass-covered slopes rise sharply from the Bear River. Cut into the southern hillside is the bed and track for the Union Pacific Railroad and below it the East Canal bringing irrigation water from Cutler Reservoir. The West Canal contours the opposite bank of the river above the operators' camp.

The county road which leads to the plant site descends into the canyon, crosses the river directly behind the powerhouse and shop and then continues for about 900 feet to the camp. Nearly identical, the 7 cottages in the camp sit above the river against the hillside. The driveway loops around the rear of the cottages in the hillside and around below the cottages near the river. A rock wall and a line of small fire hydrants extend along the bottom of the embankment adjacent to the lower road. Two rock stairways allow residents of the cottages to descend the slope to the river. At the west end of the camp, the loop joins, crosses the river below the Wheelon Switchyard and ascends the southern bank to the county road.

1. Powerhouse

Approximately 1200 feet below the dam is the Cutler powerhouse. Erected in 1925-27 in the Art Deco architectural style, the powerhouse is rectangular-shaped, two-story, brick structure with a concrete foundation and a hip roof covered with copper shingles on three sides and asphalt shingles on the west side. A concrete capped parapet wall tops all facades. Each facade is divided into bays by pilasters which have concrete decoration and pentagonal parapet caps. Within the bays is a belt course of concrete molding and the south, west and east facade bays are vertical sets of multipaned (one 16-light and two 12-lights or three 18-light) awning windows which open by a hand-crank. Constructed of riveted metal, the windows have a narrow ladder along the center mullion. The north facade contains a garage bay with a metal overhead door, 6-light awning windows and entrance with a 9-light window. The entrances have concrete surrounds.

The penstock enters the powerhouse through a concrete structure on its east side. Metal exhaust hoods project from the lower east facade. Along the west facade in the foundation wall are 2-light slider windows which replaced the original windows in 1986. Above the windows are two railings that extend along the west and south sides to allow access to the window ladders. The west side also has a central doorway which opens onto a balcony over the river. Below the lower windows on the west side, the tailrace exits into the Bear River.

The technology of the Cutler powerhouse is much larger and more sophisticated than other hydroelectric powerhouses in Utah. The powerhouse in size and design resembles other large hydroelectric installations built in the American West during the 1920s and 1930s. The interior of the powerhouse is divided into several floors, with the space used for different functions. The lowest level contains the butterfly valves used to close the penstocks; oil tanks and pumps for the hydraulic governors; a battery room; a fire pump for pumping water to hydrants around the Cutler powerhouse; a room housing rheostats for regulating the voltage of current produced by the generators; and a room containing cables that lead to the transformers.

The second floor of Cutler powerhouse is the heart of the entire hydroelectric plant. The north half of the second floor, called the generator floor, provides space for the turbine-generator sets. Cutler features two 15,000 kw General Electric a.c. generators attached to Francis reaction turbines with vertical shafts. The manufacturer's plate on each turbine reads as follows: "Designed and Built by Wm. Cramp & Sons, S. & E.B. Co., I.P. Morris Department, Philadelphia, USA 1925." Oil tanks for the governors and governor apparatus are located between the turbine-generator units. Original d.c. exciters for no. 1 unit have been removed, but the old exciters for no. 2 unit are still in place, between the unit and the north wall of the powerhouse. New exciters are located on top of both turbine-generator units. Just west of the generator floor, a few feet lower, is a space used for repair work. Tracks in the floor for a small car lead outside into the adjacent switchyard. The south half of the second floor of the powerhouse includes a room containing oil switches and circuit breakers; a main control room housing gauges

and regulating equipment; and a room containing circuit breakers for electric lines serving the Cutler plant.

The third floor, which overlooks the generator floor, is located on top of the control and switchrooms described above. The third floor is used as a materials storage and work area.

Besides machinery, one of the prominent features of the interior of Cutler powerhouse is the structural steel frame that supports the roof of the building and against which the brick facade was constructed. The structural steel frame was fabricated by the Pittsburgh-Des Moines Steel Company. Primarily, the steel frame is made of riveted steel beams. At their tops, the beams support steel Fink roof trusses. The structural steel framework also supports two overhead traveling cranes of 25 and 100 ton capacity, manufactured by the Whiting Company.

The Cutler powerhouse is an outstanding example of a large hydroelectric facility dating from the late 1920s. The building, with its Art Deco styling and massive generating equipment, presents a modernistic appearance reminiscent of larger facilities dating from the same period, such as Hoover Dam.

Cutler powerhouse has undergone little change since its completion in 1927. The building and its equipment have undergone minor modifications (e.g., part of the roof has been covered with new shingles), but basically the building is intact. Thus it retains integrity of location, design, setting, materials, workmanship, feeling, and association. The powerhouse contributes to the historic district.

2. Switchyard

On the west side of the powerhouse is the switchyard. This facility includes a steel lattice switchrack, bus bars, switches, and transformers. The Cutler switchyard has undergone some modifications since 1927. Since 1927, the switchrack has been increased in size by about one third. However, this later addition is made of the same material and features the same design as the older switchrack and is slightly lower in height. In addition, some of the older transformers have been replaced,

and in 1987, a fire destroyed a small shed adjacent to the switchyard, but this building was not in place at the time Cutler station was completed. Despite the alterations to the Cutler switchyard, the facility appears much as it did in 1927. Therefore, the switchyard retains integrity of location, design, setting, materials, workmanship, feeling, and association. It is a contributing element in the historic district.

3. Dam

Cutler Dam is situated about 1,200 ft. upstream from the powerhouse. It is an arch dam of reinforced concrete, 125 ft. in height and about 570 ft. long at the top. At its top the dam is 7 ft. thick; at its base the dam is about 50 ft. wide at the base. The upstream face is vertical and the downstream face is sloped. The spillway is located at the center of the dam. The spillway includes four steel tainter gates 30 ft. long and 15 ft. high, manufactured by the Wausau Iron Works. The tainter gates are supported by concrete buttresses. The tainter gates are raised and lowered by a motor-operated drum-type chain hoist that sits on top of a small car that runs on rails across the top of the dam. At the bottom of the spillway, extending from the toe of the dam, is a concrete apron. At both the north and south abutments of the dam there is an intake for an irrigation canal. These intakes each feature two 8 ft. by 8 ft. steel sluice gates raised and lowered by motor-driven worm gears.

Abutting the dam and adjacent to the irrigation canal that emerges from the north side of the dam, is a small concrete building that houses air compressors. Compressed air from this facility is used to create bubbles in the water around this intake. This helps to prevent ice from forming during the winter. This air compressor house is physically integral to the dam and so is considered as part of the dam, not as a separate structure. At the bottom of the dam, just north of the spillway, is a relatively small concrete structure that houses a 7 ft.- diameter sluiceway for emptying the reservoir. The sluiceway is equipped with a 7 ft. by 7 ft. back-pressure gate. A small building with a gable roof on top of the sluiceway structure houses an air compressor and a motor-driven worm gear for raising and lowering the gate. A tank, presumably for

compressed air, sits adjacent to this building. The sluiceway structure is physically part of the dam, and so is not considered to be a separate structure.

The intake structure for the Cutler conduit is located on the upstream side of the dam, just north of the spillway. The intake is actually a tower, roughly cylindrical in shape, the bottom of which is connected to the dam. The base of the intake is made of reinforced concrete and is 76 ft. high. At its top, the base of the intake flares to a diameter of 48 ft. Through the center of the intake base is an 18 ft. diameter water passage which curves toward the base of the dam. Where the intake and dam meet, this passage connects to the steel flow line, also 18 ft. in diameter. The flow line passes through the dam and exits just north of the sluiceway. Attached to the top of the intake base, around its outer edge, are screens, about 17 ft. high, through which water enters the intake. Also attached to the top of the intake base, but located on the edge of the 18 ft.-diameter water passage, is a cylinder which guides the intake gate. The intake gate itself is a riveted steel cylinder 18 ft. 6 in. in diameter, which when lowered rests in a seat at the top of the 18 ft.-diameter water passage. Essentially, the intake gate acts as a plug. Resting on top of the intake screens and the gate guide are 15 ft. tall steel supports holding up a floor which is above the water line. Located on the floor is a motor and a 120-ton twin-screw stem hoist for raising and lowering the intake gate. This mechanism is housed in a small corrugated metal shed. Also located on the intake floor is a gantry crane (built by American Crane Co.) which revolves around on a circular track. The gantry crane is used for raising and lowering the intake screens.

Cutler dam is virtually unaltered since its completion in 1927. Some weathering of concrete has occurred, causing minor crumbling on edges. Otherwise, Cutler dam is intact. The dam retains integrity of location, design, setting, materials, workmanship, feeling, and association. It contributes to the historic district.

4. Conduit

The conduit at Cutler consists of a steel pipe, also called flow

line, 1,165 ft. in length and 18 ft. in diameter. It was fabricated by the Chicago Bridge and Iron Works. The pipeline runs straight from the dam, but about 350 ft. from the surge tank it angles to the southwest before entering the concrete base of the surge tank. The pipeline is made of riveted steel pipe resting on concrete saddles, 3 ft. thick and 25 ft. wide, placed on 16 ft. centers. Surrounding the pipe at each saddle are two 8-in. steel ship channel stiffeners. These stiffeners are covered with 24 in. by 3/8 in. steel plates which extend through an arc of 240 degrees. The space between the plates and the pipe is filled with concrete. Midway between the saddles, surrounding the pipe, there is one 8 in. ship channel stiffener. The pipeline is embedded in a large concrete block at the point where it angles toward the surge tank. Originally, the Cutler flow line had a walkway on top; this has since been removed. Protecting the riverbank on which the flow line sits is a low concrete wall.

Except for the removal of the walkway, the Cutler flow line is virtually unchanged since its original construction. The flow line maintains integrity of location, design, setting, materials, workmanship, feeling, and association. The conduit contributes to the historic district.

5. Surge Tank

The surge tank at the top of the penstock sits on a concrete base imbedded in surrounding bedrock. The surge tank, 81 ft. tall and 45 ft. in diameter, is made of rivetted steel plates. A walkway supported by brackets surrounds the top of the structure.

The surge tank maintains integrity of location, design, setting, materials, workmanship, feeling, and association. It is a contributing element.

6. Penstock

Just below the surge tank are two penstocks, each about 110 ft. in length, which lead to the turbines inside the powerhouse. The penstocks begin just below the concrete base of the surge tank.

At this point there is a large steel Y, with an 18 ft. inlet and two outlets about 16 ft. in diameter. Each penstock decreases to a 13 ft. diameter. The Y and the penstocks also have 8 in. ship channel stiffeners. The penstocks are closed by huge, 13 ft." Allis-Chalmers butterfly valves located just inside the powerhouse.

The Cutler penstock maintains integrity of location, design, setting, materials, workmanship, feeling, and association. The penstock is a contributing feature in the historic district.

7-13. Operator's Camp

Among the shade trees of the camp are seven cottages, arranged in a roughly lineal pattern contouring the hill. Constructed in 1927, all of the dwellings exhibit the same design, shape, massing, and materials and appear identical. Only closer inspection reveals that the first four homes differ slightly from the last three. The seven houses are all rectangular, one-story, wood-frame buildings with concrete foundations, asphalt shingled hip roofs and broad overhanding eaves. Although originally wood-sided, asbestos shingling now covers the drop siding. Windows are 1/1 double hung and 3-light hoppers in the basements. Each house has two entrances--on the south and west--which have concrete steps and iron railings.

Only minor differences distinguish the first four cottages--#1530 (no. 7), 1550 (no. 8), 1570 (no. 9) and 1580 (no. 10)--from the last four--#1600 (no. 11), 1610 (no. 12) and 1620 (no. 13). The first four have corbelled brick chimneys, one interior and the other exterior. Originally, these may have had some casement windows which remain in #1580 but have been replaced with either fixed or slider windows in #1530, 1550 and 1570. The last three homes have exposed rafter ends under the eaves--the major distinction from the first four. Also #1600, 1610 and 1620 have exterior concrete block chimneys on the west side.

Separating the house are seven carports. These consist of a concrete and asphalt driveway, a corrugated metal roof cover and a three sided wood structure. The structures have two basic designs. Carports for #1530, 1550, 1580 and 1610 have tongue-in-

groove siding and a fixed 4-light window while those for #1570, 1600 and 1620 have lapped siding and no window.

Although these seven dwellings have sustained minor alterations including some window replacements and asphalt siding, the shape, design, massing or setting of any has not changed. Individually, the cottages retain their historic integrity as does the camp as a whole.

14-19. Ancillary Structures

Cutler features numerous ancillary structures associated either directly or indirectly with the overall operation of the plant. These ancillary structures include a shop building, bridges, irrigation canals, and various transmission towers.

To the north of the powerhouse is the shop (no. 14) which mimics the Art Deco architectural style of the powerhouse. This one-story, rectangular-shaped, brick structure has a concrete foundation and a flat roof with a concrete capped parapet wall extending above the south, west and northern roofline. Below the parapet is a course of concrete molding and brick corbelling. Rafter ends are exposed on the east side. Each facade is divided into bays by pilasters with pentagonal concrete caps. An interior brick chimney with a concrete cap rises out of the roof. Windows are sets of 4/4 double hung sashes with concrete sills. The west facade has several entrances. One garage bay contains a metal door with double wood doors beside it. Above both are two 3-light and one 10-light windows. Double wooden garage doors have a 10-light transom. This facade also contains one 4/4 double hung window. Separating the shop and the powerhouse is a fenced switchyard. Despite some alterations to the entrances, the shop retains integrity of design, materials, and workmanship as well as location, setting, feeling, and association. The shop contributes to the historic district.

Cutler features two automobile bridges. The first of these (no. 15) crosses the Bear River on the east side of the powerhouse. The bridge is made of vertical steel beams resting on concrete footings, which in turn sit on rocks and rock outcroppings. The vertical members of the bridge are strengthened by diagonal

braces. Steel floor beams support stringers made of steel beams. The bridge deck is made of wood. On either side of the deck is a simple steel railing. The second vehicular bridge (no. 16) at Cutler (built by the Industrial Steel Co.) is essentially the same as the one that crosses the Bear, except that it is smaller. It is located behind the powerhouse and spans the penstock. Both bridges retain integrity of location, design, setting, materials, workmanship, feeling, and association. Both contribute to the historic district.

Cutler dam, besides controlling stream flow for power generation, also collects water for irrigation. As mentioned above, two canals emerge from the dam at its abutments. These canals (identified on a 1935 map as the West Canal and the East Canal) follow the canyon walls downstream from the dam. At some places the canals are lined with concrete; along some stretches the rocky canyon wall forms one side of the canals. The West Canal, which actually lies on the north side of the Bear, crosses two bridges within the Cutler station grounds. Each bridge consists of a flume made of wood planks and a steel framework resting on steel lattice girders anchored in concrete pads. The East Canal (on the south side of the Bear River), about one half mile downstream from the dam, is covered by a shed-like structure made of timbers, concrete, and steel beams that prevents rocks from sliding into the canal. A small shed-roofed gauging station is located along each canal just downstream from the dam. The East and West canals maintain integrity of location, design, setting, materials, feeling, and association. However, the canals are not counted as features in the historic district for two reasons. First, they are unrelated to the Cutler plant's purpose, which is the generation of electricity. Second, the canals were built mainly to furnish water to users downstream who owned water rights at the site of the dam prior to its construction.

The Cutler hydroelectric generating facility also contains various transmission towers and control lines. One control line runs between the powerhouse and the dam and is used to open and close valves and gates at the dam. Most of this control line consists of wood poles of indeterminate age. However, part of the control line consists of a large steel tower (no. 17). This tower is directly adjacent to the powerhouse, the surge tank, the penstock,

and the bridge that crosses the penstock. This structure dates from 1927 and helps to convey the overall industrial feeling of the Cutler historic district. The structure maintains integrity, and therefore is a contributing element in the historic district. Another control line at Cutler runs between the powerhouse and the Wheelon substation one-half mile downstream from the powerhouse. Like the line running to the dam, this line also largely consists of wood poles of indeterminate age. However, at the point were it crosses the Bear River, the control line consists of two steel towers (nos. 18 and 19), one on each bank, anchored in concrete blocks. These structures, which maintain their integrity, date from 1927 and help to convey the overall industrial feeling of the Cutler historic district. Therefore they are contributing elements in the historic district.

20. Wheelon Substation

About one half mile downstream from Cutler Station is the Wheelon Substation. This facility is located at approximately the same place as the original Wheelon powerhouse. Wheelon Substation includes various storage buildings, transformers, and switchracks. One of the buildings at the site exhibits an Art Deco architectural style similar to the Cutler powerhouse. A steel truss bridge over the Bear River provides access to Wheelon. Adjacent to the south end of this bridge, along the river bank, are what appears to be remains of the old Wheelon generating station. Wheelon Substation is historically significant because it was the location of the first interconnection between Idaho Power and Light Company's hydroelectric plants on the Snake River and UP&L's Bear River plants. The interconnection, which took place in 1927, allowed the transmission of electricity between plants located in two unrelated watersheds. Essentially, the Wheelon interconnection was a major step in UP&L's efforts to master the natural environment through the construction of a huge superpower system. Still, Wheelon Substation is related but not integral to Cutler Station. Moreover, Wheelon represents transmission, not generation, of electricity. For these two reasons Wheelon Substation is not included in the Cutler 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	1927	1925, 1926, 1927,
Engineering		

Cultural Affiliation
n/a

Significant Person
n/a

Architect/Builder
Electric Bond and Share Company, Engineer Department/Phoenix Utility Company

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

(see continuation sheet)

x See continuation sheet

Cutler Station historic district is significant under Criteria A and C. Under Criterion C, Cutler is significant because it embodies the distinctive characteristics of a large-scale, technologically sophisticated, low-head hydroelectric power plant dating from the late 1920s. The only hydroelectric plant of its size and type in Utah, Cutler was built in 1927 to utilize waters of the Bear River. With its huge but graceful arch dam, spacious Art Deco-style powerhouse, massive turbine-generator units, and simple but well-planned operator's camp, the facility exhibits technological and engineering features often found in large hydroelectric stations built in the American West during the 1920s. Cutler also has significance under Criterion C because it is an outstanding example of a facility built as part of a larger system of hydroelectric plants. Cutler was built to harness the waters of the lower Bear River drainage, thus allowing hydroelectric stations upstream to store more water in their reservoirs. Under Criteria A, Cutler Station is significant because of its associations with the hydroelectric development of Utah. In contrast to other Utah hydroelectric plants, Cutler represented the work of a large, multi-level corporate organization. Cutler was built for Utah Power and Light. Upon its formation in 1912, UP&L became the dominant utility in Utah. UP&L was also a subsidiary of the Electric Bond and Share Company (EBASCO), a massive firm which owned hundreds of utilities around the nation. Backed by EBASCO's capital and technical expertise, between 1912 and 1927 UP&L upgraded existing hydroelectric facilities and constructed new ones, nearly all of them on the Bear River. By 1924, UP&L's Bear River system included plants at Soda, Grace, Cove, and Oneida (all in Idaho). Cutler Station was the last facility added to the Bear River system and the only

large hydroelectric plant built in Utah. As such, Cutler represented the culmination of hydroelectric power development in the state.

Hydroelectric development on the Bear River provided the background for the construction of Cutler Station. The Utah Sugar Company, needing electricity for its Garland sugar factory, built the first hydroelectric plant to utilize Bear River water. The Wheelon plant, constructed in 1902 and rated at 4,000 kilowatts, was demolished when Cutler Station was erected in 1927. Wheelon, about one half mile downstream from the Cutler powerhouse, is now the site of Wheelon Substation. Around the turn of the century, other companies besides Utah Sugar were interested in Bear River power. During the late 1890s, entrepreneur L.L. Nunn and an engineer in his employ, E.B. Searle, conceived the idea of using Bear Lake as a reservoir for hydroelectric power plants and irrigation systems downstream. In 1902, Nunn filed appropriations for Bear River water, and in 1907 he received permission from the Department of the Interior to develop Bear Lake. In 1906-1908, Nunn's Telluride Power Company built the Grace (Idaho) hydroelectric plant, rated at 11,000 kw. Nunn never realized his dream of developing the Bear River, as Utah Power and Light took over the Telluride Power Company in 1912.

After its formation in 1912, Utah Power and Light undertook to fully develop the Bear River, including Nunn's plan for Bear Lake. Building plants on the Bear and creating a reservoir out of Bear Lake fit in with UP&L's overall objective of putting together a huge "superpower" system of modern, interconnected electrical generating facilities. UP&L's proposed system required extensive outlays of capital, acquisition of land for plant sites and transmission line right-of-ways, and a corporate organizational structure that could provide professional and technical expertise and new business methods for operating and controlling a widespread, interconnected system. Backed by the resources of the Electric Bond and Share Company, UP&L built several new plants on the Bear River during the 1910s and 1920s. These included Oneida (1915), Cove (1917), Soda (1924), and Cutler (1927). In addition, UP&L constructed the Lifton Pumping Station (1916) and periodically upgraded existing plants. By 1922, UP&L's Bear River plants (including Wheelon and Grace) accounted for one half of the

company's 224,000 kw capacity.

Cutler Station was an important part of UP&L's Bear River system. The last plant added to the system, Cutler was the most expensive and one of the largest hydroelectric generating stations operated by Utah Power and Light. The facility had an original cost of about $6.2 million and an installed capacity of 30,000 kw. At the time of its construction, Cutler had a kilowatt rating equal to that of Oneida, but smaller than Grace's 44,000 kw. These latter two plants, however, were upgraded from their original respective ratings of 10,000 and 11,000 kw. With Cutler Station, UP&L intended to utilize runoff from the lower reaches of the Bear River watershed, especially Cache Valley. Prior to the construction of Cutler, Wheelon was the only plant on the lower reaches of the Bear to utilize this runoff. Yet Wheelon was a much smaller plant than Cutler and insufficient for the type of facility needed for the site. Cutler's 21,000 h.p., large-capacity turbines were designed to make use of the heavy springtime runoff which previously had been lost. Cutler's use of water from the lower Bear River allowed the Bear River plants situated upstream to store more water in their reservoirs, thereby increasing the efficiency of the entire Bear River hydroelectric power system.

Like the other Bear River plants erected after 1912, Cutler Station is the product of a modern corporate organization. Utah Power and Light owned Cutler Station, but the Engineering Department of the Electric Bond and Share Company designed the plant and the Phoenix Utility Company, a subsidiary of EBASCO, built all of its major components, including dam, conduit, powerhouse, and operator's camp. By the mid-1920s, EBASCO owned two hundred companies in thirty states, so undoubtedly its Engineering Department and the Phoenix Utility Company designed and built plants other than Cutler and the Bear River system. At the Great Falls of the Missouri River in Montana, for instance, the EBASCO Engineering Department and the Phoenix Utility Company were responsible for Morony hydroelectric project, built in 1928-1930 for the Montana Power Company.

The Engineering Department of EBASCO and the Phoenix Utility Company brought special expertise to the construction of

hydroelectric plants that differed from earlier, smaller, companies. Hydroelectric power plants in Utah were usually designed by one or two engineers and built by general contractors. EBASCO's operations, on the other hand, employed a team of engineers as well as its own construction company, both of which specialized in power plant construction.

Construction of Cutler Station took place between March, 1925 and January, 1927, when the facility was placed in operation. A substantial amount of materials went into the plant, including 2,635 carloads of gravel. By autumn of 1926, construction had also consumed 300 carloads of cement; 150,000 pounds of reinforcing steel; 400,000 bricks; and 100 carloads of lumber. Meanwhile, 650 workmen and 30 teams of horses were at work. A local booster publication, the Utah Payroll Builder, touted the Cutler development as a "Big Gain to Utah Institutions and Labor," because all construction materials, food, labor, and horse teams were acquired locally. The Payroll Builder claimed that ninety percent of the labor came from the local area and that the horse teams were obtained from farms surrounding the power plant site. As well, the publication stated that by October of 1926 farmers around the plant had received $75,000 for produce.

When completed, Cutler Station was a modern facility equipped with the latest in hydroelectric power technology. Cutler's characteristics reflected its association with EBASCO and the systematic planning that went into the construction of UP&L's superpower system. First, the large size and sophistication of the facility in many ways was possible only because of the capital and organization that UP&L and EBASCO could bring to the project. Spanning a river with a huge dam and building a power plant for a specific purpose required a great deal of capital, planning, and technical expertise. Second, the features of the plant--for instance, the design of its turbines--also indicated its place in a larger technological system. To a lesser degree, the architectural style of the Cutler powerhouse also indicated its place in the Bear River system. With its Art Deco embellishments, the building closely resembled the other powerhouses on the Bear River, as well as the Lifton pumping station. Third, the Cutler operator's camp also evidenced the overall organizational thrust of UP&L during the 1920s. Probably more than any other group of

operator's dwellings associated with a Utah hydroelectric plant, the design of the Cutler camp closely adhered to the ideal of a planned company town. With its uniform appearance and attention to landscaping details, the Cutler camp showed UP&L's concern with the well-being and thus stability of its workforce. Creating pleasing environments for workers so as to prevent worker discontent was one of the foundations of welfare capitalism, a concept prevalent during the 1920s.

Since its construction in 1927, the Cutler hydroelectric plant has undergone little alteration. The walkway on top of the flowline conduit has been removed; new shingles have been applied to the powerhouse roof; some new apparatus has been installed inside the powerhouse; the switchyard has been expanded; and the operator's houses have been covered with new siding material. Despite these changes, Cutler still is an outstanding example of a large, low-head hydroelectric plant dating from the late 1920s.

9. Major Bibliographical References

Clogher, A.C. "Cutler Brings in More Bear River Power for Slat Lake Basin." Electirical West 59 (1 November 1927): 255-258.

"Cutler Station". The Circuit (March 1958): 8-9.

Previous documentation on file (NPS): x 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:
x State Historic preservation office
___Other State agency
___Federal agency
___Local government
___University
x Other
Specify repository:
Utah Power and Light Company

10. Geographical Data

Acreage of property 33.5 acres

UTM References

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

x See continuation sheet

Verbal Boundary Description

x See continuation sheet

Boundary Justification

x See continuation sheet

11. Form Prepared By

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city or town Salt Lake City state Utah zip code 84102

"Hydro and Steam Developments Will Set New Records During 1928." Electrical West 60 (1 February 1928): 83-85.

"In a Utah Plant." Electrical West 61 (1 December 1928): 329.

McCormick, John S. A Legacy of Service: The History of Utah Power and Light Company. Salt Lake City: Utah Power and Light Company, 1987. (Unpublished proof copy on file in UP&L's Public Relations Department.)

"Much Local Material In New Power Plant." The Utah Payroll Builder 15 (October 1926): 9-10.

Utah Power and Light Company. "Reclassification of Electric Plant, Statements 'A' to 'I' Inclusive." Report prepared for the Federal Power Commission in compliance with Electric Plant Instruction 2D -- Uniform System of Accounts, and Order dated May 11, 1937.

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

UTM References:

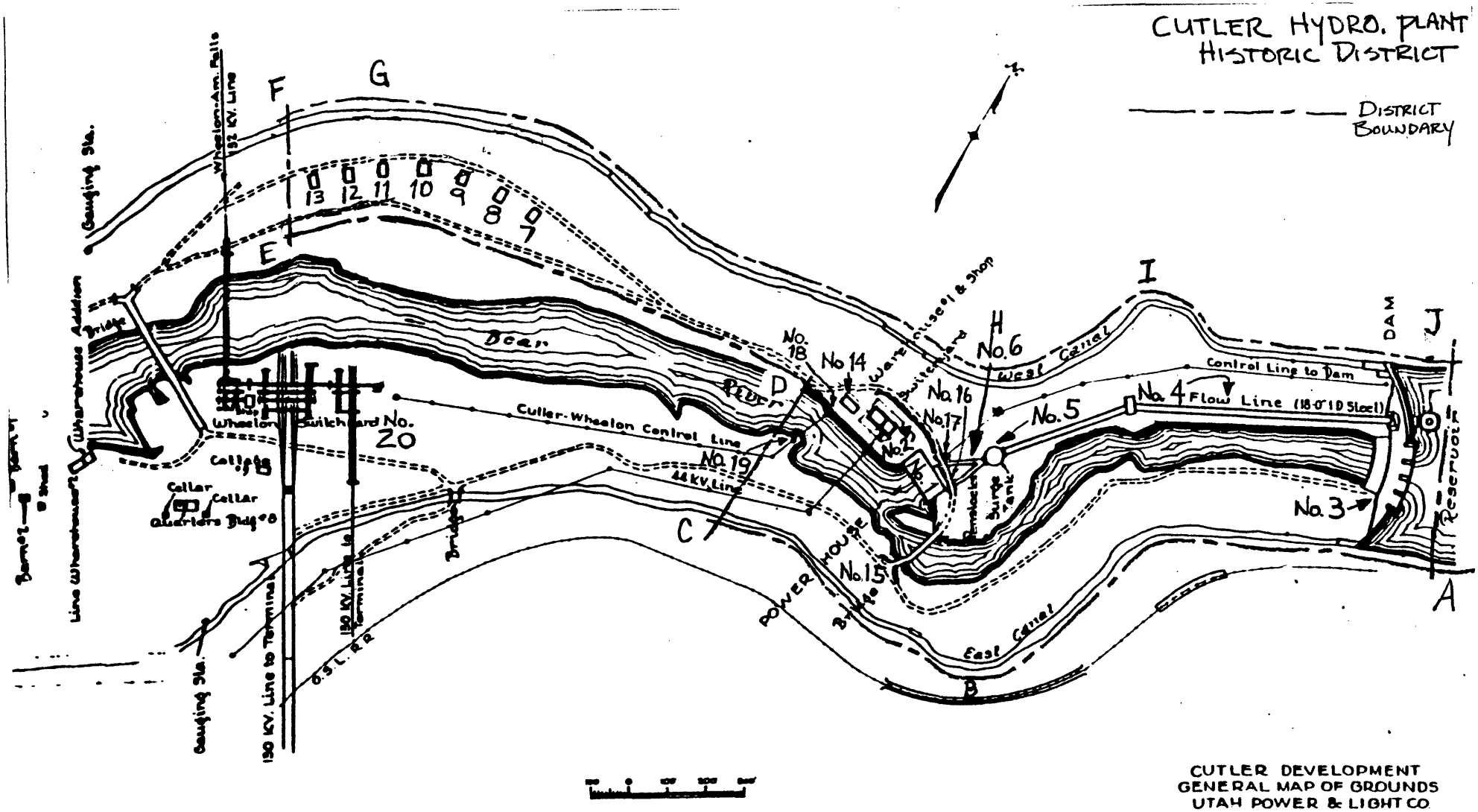
E - 12/412150/4631650
F - 12/412080/4631740
G - 12/412130/4631860
H - 12/412690/4631860
I - 12/412780/4631980
J - 12/413020/4632040

Verbal Boundary Description:

The Cutler Hydroelectric Plant Historic District is located in the SE corner of section 27, T13N, R2W, USGS Quad, Cutler Dam, Utah. The historic district boundary begins at a point 5 ft. N of the northernmost point of Cutler Dam, then follows the northern embankment of the West Canal 3,025 ft. to a point 10 ft. past the garage of the westernmost cottage in the operators' camp. The boundary then proceeds S 225 ft. to the southern side of the lower access road and follows the road for 1,425 ft. to the gate entering the powerhouse yard. The boundary then proceeds due S across the Bear River for 400 ft. to the southern edge of the East Canal (boundary includes the control towers). The district boundary then follows the southern embankment of the East Canal for 2,135 ft.. Five ft. from the southernmost edge of Cutler, it parallels the dam for 225 ft. At that point, the boundary makes a right angle and crosses the reservoir, behind the intake, for 530 ft. NW to the N side of the reservoir. The boundary then proceeds 170 ft. SW to the point of beginning off the northernmost point of the dam.

Boundary Justification:

The boundary of the Cutler Hydroelectric Plant Historic District was drawn so as to include those buildings and structures directly related to the operation of the Cutler plant. Virtually all of these structures date from 1927, and represent the Cutler plant's operations and associations. Buildings and structures outside the Cutler district include the those at Wheelon substation, which is a related but distinct facility.



CUTLER DEVELOPMENT
GENERAL MAP OF GROUNDS
UTAH POWER & LIGHT CO.
SALT LAKE CITY, UTAH
Scale: As shown. Dec. 1935
UB-20121

.L:66

Cutler Photograph Log:

Cutler Hydroelectric Plant Historic District
Near Beaver Dam, Utah, on Bear River
Mark T. Fiege, photographer
July 1988
Negatives located at Utah SHPO

Photo #:

1. Cutler hydroelectric plant, view to the east, showing (left to right) control line towers (nos. 19 & 18), shop (no. 14), switchyard (no. 2), powerhouse (no. 1), surge tank (no. 5), and dam (no. 3).

2. Cutler powerhouse (no. 1) on left and surge tank (no. 5) on right; view to north.

3. Interior of Cutler powerhouse showing turbine-generator units and overhead travelling crane, view to west.

4. Shop building (no. 14), view to east, with switchrack (no. 2), surge tank (no. 5), and powerhouse (no. 1) on right.

5. Cutler dam (no. 3), and conduit/flowline (no. 4), view to east.

6. Cutler dam (no. 3), showing intake structure on left, spillway section of dam on right, view to southeast.

7. Cutler dam (no. 3) and conduit (no. 4), view to northeast.

8. Cutler operator's village, view to north, looking across Bear River. The cottages, which are distinguished by their hipped roofs (if not obscured by foliage), are numbered from right to left as follows: 7, 8 (obscured by trees), 9, 10, 11, 12, 13 (at far left, obscured by trees).

9. Operator's cottage (no. 7), view to southeast.

10. Operator's cottage (no. 8), view to southeast.

11. Operator's cottage (no. 12), view to southeast.