

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 11

Seaholm Plant
Austin, Travis County, Texas

Topping the Turbine Generator Building is an 80-foot aluminum microwave tower that was presumably used to control electronic switching at substations.⁴

The east elevation has remained unaltered since its construction in 1950 (Photo 6) and continues the same scored and fluted concrete vocabulary seen on the principal facade. Where the office block adjoins the Turbine Room, the building increases in height a distance equivalent to one story, although the Turbine Room is not subdivided into floors (Figure 7-12). In the upper, northern corner of the office block there is a small square scupper lined with copper flashing. Such overflow scuppers are visible around the buildings, but most drainage is achieved through internal roof drains.

The eastern elevation introduces several window variations. The eastern side of the office block contains three divided light windows in each punched opening on the first and second floors. Much of the east wall of the Turbine Room also contains divided light windows, but the entire grouping of windows is surrounded by a projected, one-inch cast stone frame that emanates from the water-table. The smaller windows over the east face of the Men's Locker Room and Laboratory are separated by fluted concrete panels, but the fluting is horizontal rather than vertical. Lastly, there is a matrix of 18 textured glass block windows set within a raised cast stone frame.

The north face of the Turbine Generator building is dominated by the five large boilers and stacks (Photo 7). Defunct railroad tracks pass to the east of the boilers and enter the Turbine Room through a rolling steel door; it was here that the giant steam turbines were delivered in pieces by train. Above the rolling door are windows at the second and third story levels configured just as they are on the front, although the second story window is only four lights tall to accommodate the rolling door below. There is a puzzling ghost in the concrete panels surrounding this window suggesting a previously different window configuration, but the original, as-built drawings depict the current configuration.

Clerestory windows march along the top of the Turbine Room, interrupted by the elevator penthouse, but the boilers obscure all of this. The four most eastern boilers, serving generators #5 through #8 (the old plant contained #1 through #4) are identical in appearance, although the stacks for boilers #7 and #8, added five years later, are taller and thinner than the two original stacks serving the two generators housed in the 1950 portion of the Turbine Room. Each stack is on an octagonal concrete pad north and center of its associated boiler, connected to the boiler via large rectangular ducts of constantly varying cross-section. Each boiler is clad in a cubic mass of corrugated, embossed aluminum that was recently installed as part of the decontamination of the plant. The boilers were originally clad in asbestos insulation contained within a woven wire mesh, plaster, and canvass, all of which was painted a light color.⁵ When the asbestos was removed, the mesh was replaced with the aluminum, representing the most significant destruction of Seaholm's integrity.

Above and around each boiler is a steel superstructure, valves, ladders, stairs, catwalks, and great lengths of piping that give the boilers a nautical appearance. The concrete walls of the Turbine Generator Building are often penetrated by the pipes through holes that are much larger in diameter than the pipes. Before

⁴ "Seaholm Sparks Short Circuiting," *Austin American-Statesman* (1 October 1954).

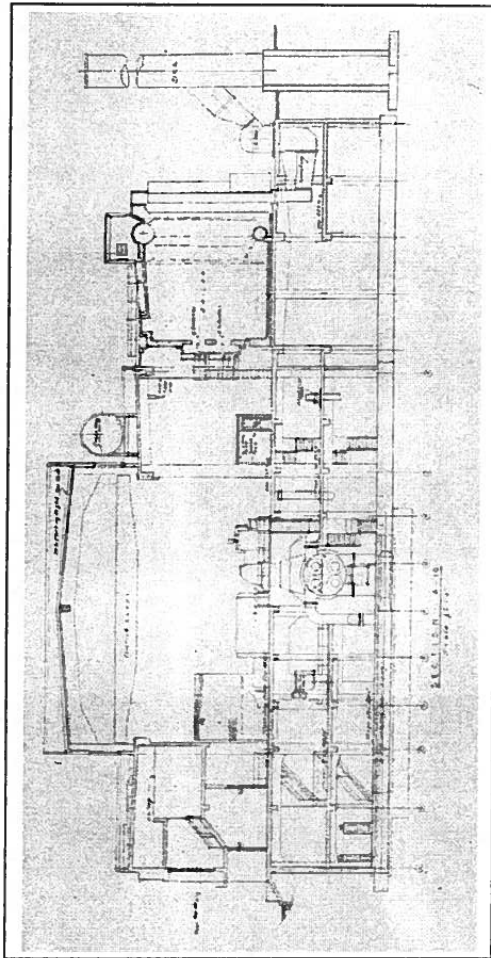
⁵ Dave Ege, personal interview, 27 March 2000.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 12

Seaholm Plant
Austin, Travis County, Texas



North-South Section, Turbine Generator Building. Note the three levels and the undifferentiated volume of the Turbine Room.⁶

⁶From original ink on linen drawing by Burns & McDonnell in Austin Energy's drawing collection.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 13

Seaholm Plant
Austin, Travis County, Texas

the asbestos pipe insulation was removed, however, these holes provided just the clearance required. Between the boilers are double-leaf metal man doors at grade and two-over-six windows above, both of which are obscured by the boilers. The ground between the boilers contains pipe trenches covered with removable concrete slabs. Between boilers #7 and #8 is a Gun House made of concrete block that was installed later and used to maintain the fuel injectors ("guns") for the boilers.

The most western boiler, attached to generator #9, is altogether different in appearance and operation from the other four. Boilers #5 through #8 are mounted on the ground and expanded upward as they got hot. The boiler faces, which contain the boiler controls, breach the north wall of the Turbine Generator Building, entering through large openings in the concrete wall. Boiler #9, however, is a "hanging" boiler, expanding downwards as it got hot during operation. It is therefore much taller than the other boilers, with a much more pronounced steel superstructure that rises above the Turbine Generator Building, holding the boiler above a hole at grade through which it hangs into the mezzanine level. This hole is not visible from the exterior, however, because Boiler #9 is perched upon a two-story concrete block structure that was part of the original construction, despite its different vocabulary.

Although Boiler #9 lacks the same cubic corrugated aluminum shape of the other boilers, it nonetheless contains large ducts made of matching corrugated aluminum. The attached flue stack is larger in diameter than all the others and matches the height of stacks #7 and #8, although it is set farther north than all the other stacks, which are aligned east-west, so it often appears to be a different height (Photo 7).

To the west of boiler #9 is a low addition mated to the western face of the Turbine Room that was completed in 1972. Like the original Turbine Generator Building, the addition is made of scored concrete, although the scoring divides the faces of the addition into much larger panels than the smaller squares on the rest of the building. Between the addition and the concrete block base for Boiler #9 to the east is a concrete block infill containing a double-leaf man door and capped with a shed roof, the only visible roof structure on the entire building. The infill was completed in 1987 and necessitated the removal of two windows at Boiler #9's base.

The western elevation of the Turbine Generator Building is the face that defines the power plant to many Austinites (Figure 7-14), for it looms prominently above busy Lamar Boulevard. The low concrete 1972 addition cannot be seen from afar, but the stacks, boilers, and profile of the west end are easily noticed rising above the railroad tracks. The western face is free of windows and presents a generous expanse of scored concrete. High upon the Turbine Room face are Moderne letters spelling "City of Austin Power Plant," which are illuminated red at night.

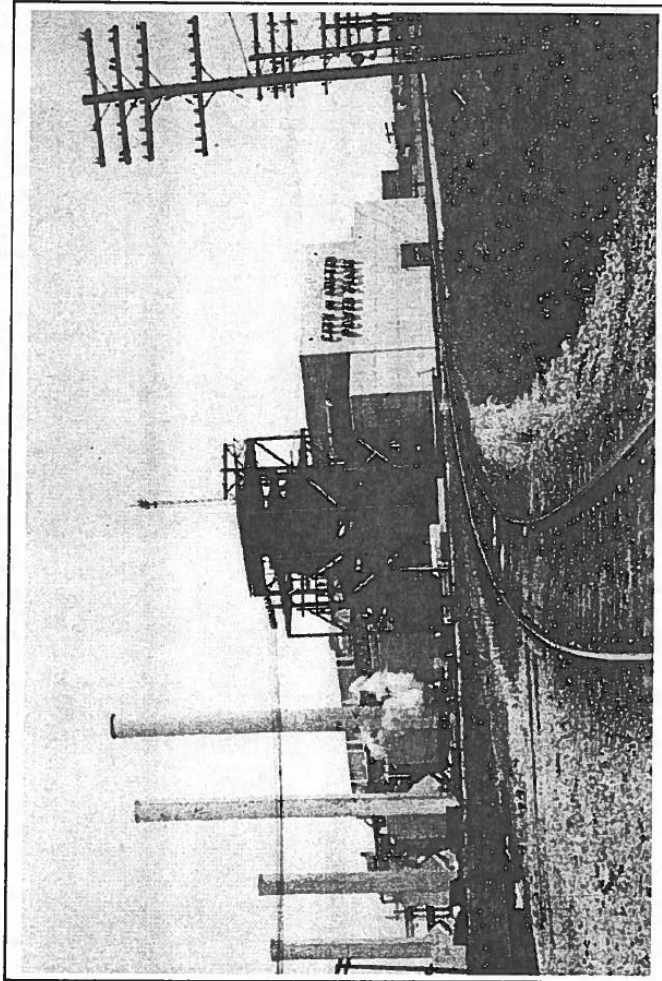
Entry into the Turbine Generator Building through either set of aluminum Deco style doors on the south facade leads to a double-height stair lobby detailed more elaborately than the rest of the functionally direct power plant. On the floor is a medallion made of vinyl composition tile (VCT) that says "City of Austin" in a ring around a large star. A red tile base surrounds the perimeter of the stair lobby. An aluminum stringer course matching the edge of the awning outside clads the stair, and the stair rail is made of extruded aluminum of

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 14

Seaholm Plant
Austin, Travis County, Texas



Oblique view (historic, c. 1955) of Turbine Generator Building's north and west elevations, camera looking southeast. Note that installation of Boiler #9 and its stack is incomplete.⁷

⁷ PICA 20172, Austin History Center, Austin Public Library.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 15

Seaholm Plant
Austin, Travis County, Texas

rectangular cross-section. The stairs have a landing above the aluminum entry doors, situated just below the back side of the glass block light and aluminum text. During the day the stair lobby is bathed in filtered sun light, and at night the stair lobby fluorescent lights are left on to silhouette the aluminum text with white light while the text is simultaneously back-lit with red to compliment the signage on the west face of the Turbine Room. In the western entry is a plaque listing the city council members and mayor at the time of the second phase of construction.

The stair lobbies enter directly into the cavernous Turbine Room floor through a set of steel full-light doors with transoms above that mimic the aluminum entry doors. The Turbine Room is an impressive volume of undivided space (Photo 8). On the bare concrete floor (which was previously tiled with VCT) are the five huge steam turbines, which appear as massive mounds of blue-gray metal that rise out of the floor from below. The Turbine Room is generously lit with natural light from the clerestory windows as well as the windows on the east elevation. Three large square openings cut into the floor between the generators provide views into the mezzanine and basement levels below (Figures 7-16 and 7-17), which contain a maze of pipes, valves, metal stairs, and grates.

Engaged rectangular piers rise two stories above the generators at a regular interval, supporting the crane runway above for the still operational, 75-ton beam crane. At the building seam the pier is double-width. Topping each pier is a concrete roof beam supporting the concrete and built-up roof. There is only a single-wide beam atop the double pier at the construction joint, however. A central concrete spine runs down the center of the ceiling at the gable peak, helping to make the ceiling appear like the ribbing of a boat hull. Along the south face of the Turbine Room at the second floor are a series of glass windows that permit the offices above, including the control room with an extensive array of panels and gauges, a view of the Turbine Room floor below.

The Turbine Generator Building possesses a high degree of historical integrity (compare Photos 1 and 5, Photo 6 and Figure 7-8, and Photo 7 and Figure 7-14). Most of the windows are intact; only a handful have muntins that have been compromised by the installation of ventilation louvers or window air-conditioning units. Several windows have been covered on the exterior with storm windows and several others have been tinted with gold film.

The 1972 addition on the west end of the Turbine Room has obscured some of the original western elevation, but it has not destroyed the original building fabric. The original overhead door and man door on the southern edge of the Turbine Room's west elevation still remain, they have just been encapsulated within the addition.

Water Intake Structure

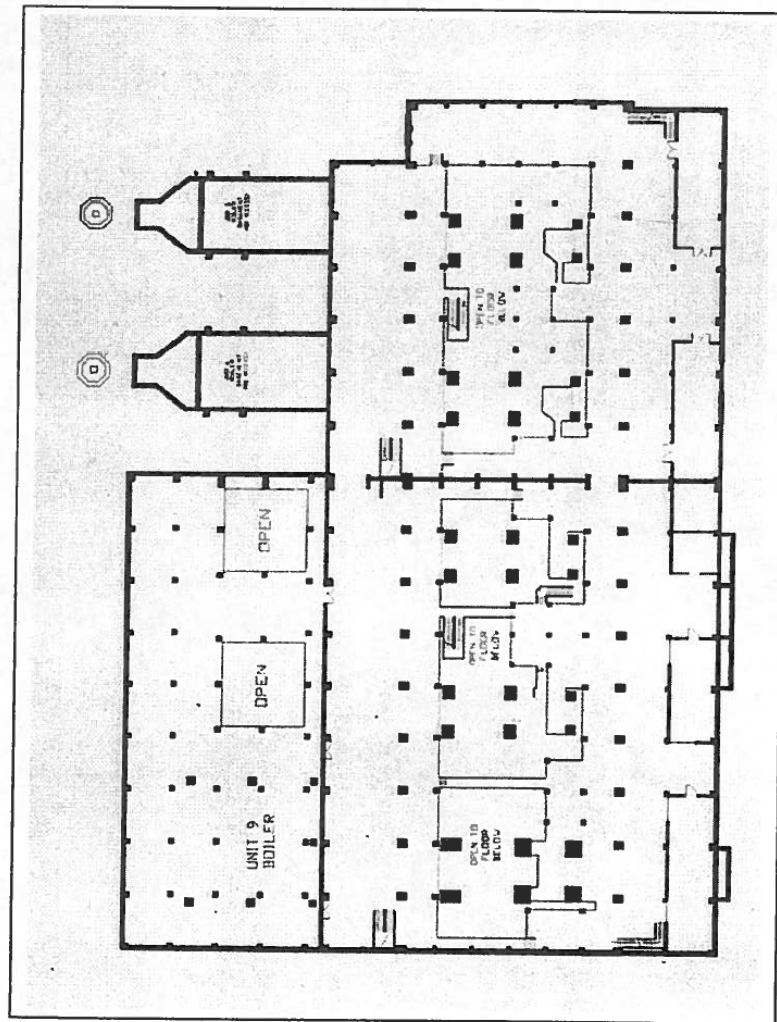
The Water Intake Structure is located across West Cesar Chavez Street to the south of the Turbine Generator Building, and it protrudes into the water of Town Lake (Photo 2). Its construction system and design vocabulary, both inside and out, are extremely similar to the Turbine Generator Building. Also like the Turbine

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 16

Seaholm Plant
Austin, Travis County, Texas



Mezzanine Plan, Turbine Generator Building. North is to the left.⁸

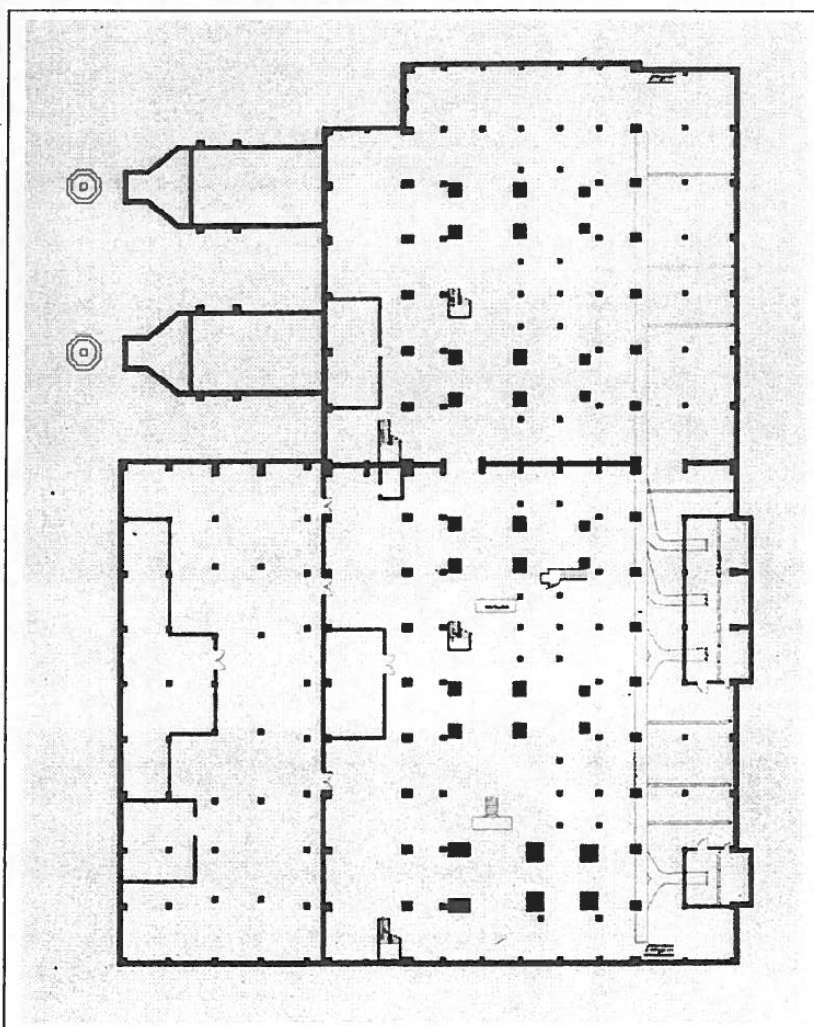
⁸ Courtesy of Roy F. Weston, Inc.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 17

Seaholm Plant
Austin, Travis County, Texas



Basement Plan, Turbine Generator Building. North is to the left.⁹

⁹ Courtesy of Roy F. Weston, Inc.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 18

Seaholm Plant
Austin, Travis County, Texas

Generator Building, the Water Intake Structure was built in two phases in 1950 and 1955. Since each generator has two water intakes, the original 1950 Water Intake Structure contains only four sluice gates (two each for generators #5 and #6). With the addition of generators #7 through #9, the Water Intake Structure was extended to the west to accommodate six more sluice gates and pump gear.

Entry into the Water Intake Structure is gained through a man door behind a small concrete wing wall on the north elevation. To the east of the man door is a rolling steel door and window. There are six more windows to the west of the man door, and all windows on every facade have a panel of corrugated concrete above and a pre-cast concrete sill below. Much of the north elevation is obscured by large Live Oak trees, which have matured since construction was completed, and also by a newly erected (non-contributing) outbuilding for the nearby municipal water treatment plant.

The east and west elevations of the water intake structure are similar. Both have three, two-over-seven divided light windows set within slightly indented vertical bands that span from the ground (or water) to the parapet. The east and west elevations maintain the same scored concrete vocabulary, but unlike the north and south elevations, the east and west are not divided into squares; instead they are only divided horizontally. A steep metal stair on the west elevation leads to a concrete walk just above the water on the south side. Public access to the stair is precluded by a fence and barbed wire.

The south elevation rises two stories above the water (Photo 2). At the water level are operable sluice gates nestled below the concrete walk. Above each of the ten gates are one-story-high rectangular indentations. The two phases of construction are apparent in a double-wide wall separating the indentations for pumps #6 and #7. Down the center of each indentation runs a metal rod, held in place by two metal bearings, from the floor above that opens the sluice gates. Above each rectangular indentation is a two-over-seven divided light window. Like the east and west faces, these windows are placed within a vertical indentation running from the parapet topped with a pre-cast concrete coping, above, to the rectangular indentations below.

To the east of Seaholm's Water Intake Structure is a small, four-bay building very similar in detailing to the Seaholm Water Intake Structure, but this water intake structure for the Green Water Treatment Plant has much narrower bays. Although this structure never served Seaholm Plant, it is effectively part of the Seaholm Water Intake Structure, sharing a concrete retaining wall with the east face of the Seaholm Water Intake Structure, which is obscured by the currently operating Green Water Treatment Plant intake structure.

The interior of the Water Intake Structure shares similarities with the Turbine Room of the Turbine Generator Building. It too is an undivided rectangular volume with engaged rectangular piers that hold up rails for a 5 ton beam crane (Figure 7-19). The two phases of construction are more evident, however: at the construction joint there are two piers side-by-side, accompanied by a crack in the floor and side-by-side roof beams above. The floor is also breached by rectangular openings leading to two sump pits containing the water pumps. The sump pits do not extend the full-length of the Water Intake Structure, but are interrupted by the concrete wall between the two phases of construction.

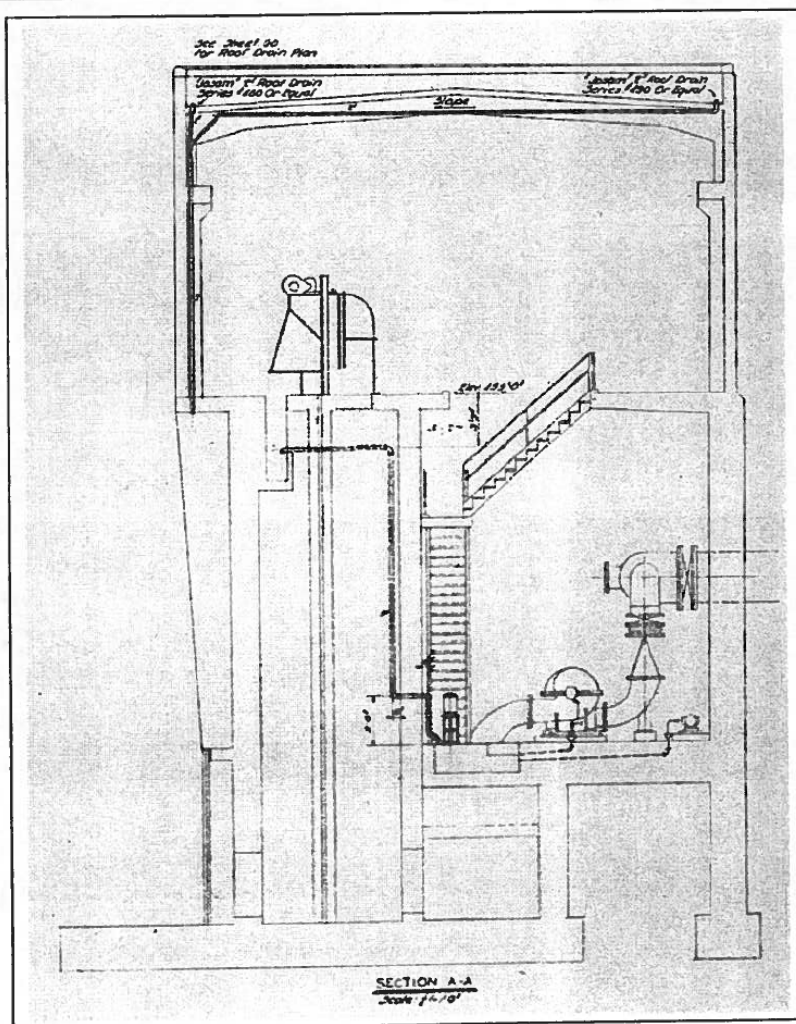
As cooling water for the steam condenser was drawn into the Water Intake Structure, it passed through traveling screens that removed debris from the lake water. The screens, linked in a belt like a bicycle chain,

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 19

Seaholm Plant
Austin, Travis County, Texas



North-South Section, Water Intake Structure.¹⁰

¹⁰ From original ink on linen drawing by Burns & McDonnell in Austin Energy's drawing collection.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 20

Seaholm Plant
Austin, Travis County, Texas

were moved by the drive mechanisms located above on the south side of the main floor. Each of these ten large drive mechanisms obscures the light filtering into the Water Intake Structure from the southern windows. After passing through the water screens the water was pumped to the Turbine Generator Building through 42-inch diameter pipes (#9 had 54-inch pipes) by the massive pumps at the bottom of the sump pits. After cooling the steam that spun the turbines, the water was discharged into Shoal Creek.

The integrity of the Water Intake Structure is high. No external integrity has been compromised; the only major alterations are the replacement of the four traveling water screens for generators #5 and #6 with newer units.

Oil Heating Plant

Isolated in a sea of recently poured asphalt to the north of the Turbine Generator Building is the Oil Heating Plant, made of the same scored concrete and smooth water-table construction as the Turbine Generator Building (Photo 3). The east and west faces have no doors or fenestration. The south elevation is symmetrical, with a five-light steel man door on-center and two casement windows to either side, all of which are located within a raised rectangular concrete frame originating at the water-table. Two black handrails frame the door, preventing a fall into the deep stair well that cuts into the earth along the south face of the pump house; entry through the south door is actually via a concrete bridge that spans the stair. The north face has what was once a symmetrical composition arranged around a centered, square chimney that rises above the parapet. On the east side of the chimney is a double leaf metal door. Each leaf has a large light divided into four vertically and an inset square panel with louvers below. On the opposite (west) side of the chimney is another set of doors, the eastern one of which matches the set on the east side of the chimney. The western door of this pair was destroyed—the only loss of integrity in the small structure—and has been replaced with a flat panel steel door that is too short, so there is a metal “transom” panel above. Both sets of doors are bracketed by casement windows that are the same as on the front.