United States Department of the Interior National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Covington Electrical Substation, Bonneville Power Administration

other names/site number

Name of Multiple Property Listing	Bonneville Power Administration [BPA] Pacific Northwest Transmission System
(Enter "N/A" if property is not part of a multip	le property listing)

2. Location	
street & number 28401 Covington Way SE	not for publication
city or town Covington	vicinity
state <u>Washington</u> code <u>WA</u> county <u>King</u> code <u>033</u>	zip code _98042
3. State/Federal Agency Certification	
As the designated authority under the National Historic Preservation Act, as amended,	

hereby certify that this <u>X</u> nomination <u>request</u> 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 meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance: nationalX statewide local
Applicable National Register Criteria: X A B X C D
Signature of certifying official/Title: Deputy State Historic Preservation Officer Date
Washington State Historic Preservation Office State or Federal agency/bureau or Tribal Government
n my opinion, the property meets does not meet the National Register criteria.
Signature of commenting official Date
Title State or Federal agency/bureau or Tribal Government
4. National Park Service Certification
hereby certify that this property is:
entered in the National Register
determined not eligible for the National Register removed from the National Register
other (explain:)
Signature of the Keeper Date of Action

5. Classification

Contributing Noncontributing public - Local x district 3 site public - State x district 3 3 site x public - Federal x district 3 3 object Name of related multiple property listing (Enter 'NA" if property is not part of a multiple property listing) Number of contributing resources previously listed in the National Register Bonneville Power Administration (BPA) Pacific Northwest Transmission System 0 0 6	Ownership of Property (Check as many boxes as apply.)	Category of Property (Check only one box.)	Number of Res (Do not include prev	ources within Properiously listed resources in t	e rty the count.)
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Name of Property

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity).

Summary Paragraph

The Covington Electrical Substation is located at 28401 Covington Way SE in Covington, Washington. It was designed and funded by the Bonneville Power Administration (BPA). It was constructed primarily by the C.F. Davidson Company, of Tacoma, Washington, starting in 1941 during the initial BPA development period. The style of the principal buildings is Streamline Moderne, straight-line design with little ornamentation, perfect for a utilitarian assemblage. The main elements of an electrical substation built during this time period are an Untanking Tower and a Control House built on the edge of a large Switchyard. Ancillary buildings and structures support the mission of power distribution. A substation has a large footprint. When the station went online in 1942, it covered approximately 21 acres. Today, the station covers about 37 acres within its outer perimeter fence.

When built, the Covington Substation was in a sparsely populated area. Today, suburban development serving Seattle to the north and Tacoma to the south have changed the area's rural setting. However, the station is still on the edge of the development and retains its open, industrial setting. The principal buildings have not lost their integrity of design, materials, and workmanship over the intervening 75 years of operation by the BPA. Given the high degree of integrity of the substation's resources, the substation provides a strong feeling of history.

Narrative Description

There are many buildings and structures contained within the outer fence line of the Covington Electrical Substation (see Figure 4). However, many of the structures do not have foundations, such as shipping containers, that are being used as semi-permanent storage and are easily moved around. These non-fixed structures are one of the features of a substation but the transitory nature of the structures means they were not inventoried in this nomination nor labeled on any figures. *Buildings* were inventoried if they had a foundation. *Structures* (not intended to provide shelter for people, as opposed to buildings) were only inventoried if they had a foundation. *Sites* are areas of use related to the substation. Given the above parameters, below is a table of the Covington Substation buildings, structures and sites in order by construction date.

Covington Substation Buildings, Structures, and Sites				
Name	BPA Building Number	Resource Type	Construction Date	Contributing/ Non-Contributing
Untanking Tower	Z-0965	Building	1941-42	Contributing
Control House	Z-0964	Building	1941-42	Contributing
Switchyard	NA	Site	1941-present	Contributing
Transportation paths	NA	Site	1942-present	Contributing
Automotive Storage Bunker	Z-1079	Structure	1944	Non-contributing
Landscaped areas	NA	Site	1952-present	Contributing
HMEM Shop	Z-0966	Building	1953	Contributing
Communication Building	Z-0778	Building	1958	Contributing

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Name of Property

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Covington Substation Buildings, Structures, and Sites				
Name	BPA Building Number	Resource Type	Construction Date	Contributing/ Non-Contributing
Automotive Storage Building	Z-0770	Building	1959	Contributing
Maintenance Warehouse	Z-0766	Building	1959-60	Contributing
Control House Flammable Storage	Z-0409	Structure	1966	Contributing
Microwave Tower	NA	Structure	c.1966	Contributing
TLM Vehicle Canopy	Z-7836	Structure	1971	Non-contributing
Engine Generator Building	Z-0517	Structure	1973	Contributing
PSC & SPC Office	Z-1298	Building	1996	Non-contributing
SPC Maintenance Shop	Z-0045	Building	2004	Non-contributing
District Office	Z-1448	Building	2009	Non-contributing
Fueling Station	Z-7380	Structure	2011	Non-contributing

Untanking Tower (1941-42)

The Untanking Tower is the most visible building at the Covington Substation. The tower faces Covington Way behind a broad manicured lawn and rises to a height of 63 feet. Built of reinforced concrete with a stucco finish, it is easily the tallest building in the surrounding area, competing only with the transmission towers that lead to the switchyard. The building is basically a tall, flat-roofed central volume with symmetrical flat-roofed wings off either side (see Photo 1). The Untanking Tower was designed in-house by staff designers in the BPA Engineering Department with the plans credited to "A.W.H." (certainly Albert W. Hilgers). The plans were approved by Dean R.E. Wright, BPA's Senior Architect, in March 1941. In April 1941, the construction contract for the Untanking Tower was awarded to the C.F. Davidson Company of Tacoma for a total cost of \$137,112.00.¹ At the same time, the BPA announced that the contract for the massive 125-ton gantry crane in the Untanking Tower was awarded to the Cyclops Iron Works of San Francisco for a total cost of \$44,395.10.

Untanking Towers were a key component of the BPA's early Master Grid-era substations. The Untanking Tower would be aligned with a wide-gauge rail line that led to the switchyard allowing large transformers to be moved relatively easily. In the case of Covington, the Untanking Tower was additionally sited upon a spur line that connected with the Northern Pacific rail line just outside the southeast boundary of the complex. Transformers and other equipment could be brought to the substation directly on rail cars. Raised by the massive gantry crane, equipment could then be transferred to a special-purpose, wide-gauge rail cart that could be moved back and forth to the switchyard as needed (see Photos 2 and 3).²

The Untanking Tower's primary function was to service the massive oil-filled transformers of the switchyard. Inside the tower is the "assembling room." Here the exterior covering of a transformer would be removed using the 125-ton gantry crane and the transformer's oil-filled tanks re-charged. Oil pumps were located in the basement with internal lines connecting the pumps to the assembling room. This was a variation on BPA's typical arrangement, where a stand-alone "Oil House" independent of the Untanking Tower housed the pumps. As transformer technology moved away from oil-filled units, the functionality of both Untanking Towers and Oil Houses was reduced, with many examples no longer standing.

In addition to the large, 26' x 73' assembling room, the Untanking Tower contains additional spaces. The main floor contains an office area and service areas, while the two flanking single-story volumes (each 22'9" tall) contain a large storeroom, a shop, tool room, and the access portion of the oil room (northwest) which

¹ "Work on Huge Covington Substation Project Rushed," *Kent News-Journal*, 5/22/1941.

² Currently, Covington's special purpose rail cart has been shunted aside and sits off its rails in the southern corner of the yard.

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continues into the full-height basement. In recent years the basement has endured flooding, reportedly from the 1941 diversion of Jenkins Creek to Jenkins Canal. Station staff have remedied the water issue but not before relocating hardware and other materials stored below grade to the former oil room, where a heavy timber mezzanine structure has been inserted.

The Untanking Tower retains numerous original, character-defining elements including the multi-paned, industrial steel sash windows, many set in banks with gear-driven operators to open their transoms (see Photo 6). Streamlined Moderne detailing on the exterior includes portal windows, projecting concrete canopies, and metal pipe hand-railings on the public sides, i.e., the front and side elevations (see Photos 4 and 5). Large, steel sash windows in vertical bands light the assembling room on the front elevation. Through the large bands of windows, the interior steel staircase is visible used to access the operator's cab of the gantry crane and roof.

On the rear, the four enormous doors used to access the Switchyard are still in place (Photo 2). While the large access doors facing northwest and southeast have been replaced with newer roll-up doors, the original rails that connect the Untanking Tower to the switchyard and rail spur remain embedded in the assembling room floor. The steel rails, which extend outward from the assembling room in three directions, are character-defining features of the structure. The Untanking Tower, still utilized by BPA for transformer and repair functions, as well as storage, tool room, shop and office areas, has high integrity to original design and appearance and is a contributing resource within the Covington Substation Historic District.

Control House (1941-42)

Like the Untanking Tower, the Covington Substation was designed by BPA staff in 1940 and completed in 1942. The Control House is a single-story, flat-roofed, reinforced concrete volume with simple Streamline Moderne detailing. It was built by the C.F. Davidson Company, of Tacoma, Washington.

Set behind a landscaped lawn area, with mature shrubs, flag pole, and other features, the Control House rises 16'6" above grade, with a projecting front entrance (see Photo 7). The full working basement consists of the cable room (42'2" x 49'5") below the control room on the northeast, with a large storage space occupying the southwestern portion of the building. In addition to the control room, the main floor houses offices, battery room, storage room, locker rooms, and a small kitchen area in addition to service areas. Original detailing remains in the basic volume, with rounded wings and a small projecting concrete canopy high-lighting the entry way. Original steel, waterfall railings remain at northeast end and rear entryways (see Photo 9).

In 1971, BPA employee Victor Ely Cochran designed a small addition to the Control House on the south corner adjacent to building's projecting entry. Built of concrete block and roughly 36' wide and 17' deep, the addition is scaled slightly below the original volume and is generally compatible in finish and design. The original multi-pane metal sash windows of the entire Control House were removed and replaced with vinyl sash windows painted brown. Individual vinyl fixed and operable sashes fill the original openings; however, their multi-pane construction and aged paint make the newer windows compatible with the overall character of the building. The entire exterior has also been covered in a stucco and Styrofoam layer (EFIS) visually in keeping with the original stuccoed exterior.

The interior of the Control House, while modified as part of the continual equipment upgrade required by its primary function, nevertheless retains high integrity to the original design in the spatial arrangement of the major spaces and detailing. Early linoleum tile remains in the kitchen and locker room. Original heating coils are inset into the wall and screened by bronze screens. Most ceilings have been modified non-historic, incompatible lighting.

While modified by a large addition during the historic period and the installation of newer, but visually compatible windows, the Control House retains sufficient integrity to convey the associations for which it is significant within the BPA Multiple Property Documentation. The Control House is counted as a historic contributing feature within the Covington Substation Historic District.

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Switchyard (1941-present)

The Switchyard is a large, multi-component element that forms the core of the Covington Substation (Photo 10). The Switchyard is a feature that expands with new equipment as needed and contracts as equipment is removed; however, modern heavy-duty electrical equipment is very similar visually to its 1942 ancestors. The first steel for the switchyard arrived at Covington in February 1940, as construction of the first line on the "Centralia-Renton" circuit was begun.³ By December 1940, work on connecting Covington with the Ross Substation was underway. "The Vancouver-Covington line is costing more than \$3,000,000…it is a 230,000-volt line."⁴ By July 1941, over 100 workers were on-site, assembling the structural steel for "the big buss and transformer yard" at Covington.⁵ Temporary connections between Covington and Puget Sound Power were energized by December 1941, with the first phase of the switchyard deemed completed by March 1942.⁶

The switchyard occupies the majority of the developed Covington Substation property. A rectangular area approximately 650 feet wide and 1450 feet long is secured by chain link fence and edged by the Control House, Automotive Storage Building, and HMEM Shop. The multiple transmission towers that carry lines in and out of the switchyard are partially located within the boundaries of the Covington Substation and continue from lines that extend beyond the switchyard fence. These lines are not included as part of the historic district but are rather considered terminal elements of the lines themselves.

The Covington Switchyard is divided into zones, with both 230kV and 500kV sections depending upon the line voltage, each of which has switchgear (breakers, deadheads, transformers etc.) related to the operation of a transmission line. The transmission lines within the BPA system routed through the Covington Switchyard (in chronological order) are:

- Chehalis-Covington No. 1, 230kV, energized 1941
- Covington-White River No. 2 (PSE), 230kV, energized 1941
- Covington-Creston No. 1 (SCL), 230kV, energized 1941 (1981)
- Covington Grand Coulee No. 2, 230kV, energized c.1942
- Covington-Maple Valley No. 2, 230kV, energized 1955 (1961, 1968)
- Covington-Columbia No. 1, 230kV, energized 1956
- Covington-Columbia No. 2, 230kV, energized 1956
- Covington-Bettas Road, 230kV (formerly Covington-Columbia No. 3), 1956, renamed 2010
- Covington-Duwamish No. 1 (SCL), 230kV, energized 1961
- Tacoma-Covington No. 3, 230kV, energized 1961
- Tacoma-Covington No. 5, 230kV (c.1961, renamed n.d.)
- Covington Substation Tie-Line No. 1, 230kV, energized 1966
- Covington Substation Tie-Line No. 2, 230kV, energized 1966
- Raver-Covington No. 1, 500kV, energized 1966
- Covington-Grand Coulee No. 3, 203kV, energized 1968
- Covington-Berrydale No. 1 (PSE), 230kV, energized (n.d.)
- Covington-White River No. 1 (PSE), 230kV, energized 1968
- Tacoma-Covington No. 4, 230kV, energized 1968
- Raver-Covington-Raver No. 2, 500kV, energized 1969
- Covington-Raver No. 3, 230kV, energized (n.d.) (post-1969)
- Tacoma-Covington No. 2, 230kV/500kV, energized 1981

³ "Bonneville Line Steel to Come Here," *Kent News-Journal*, 2/8/1940.

⁴ "Sound Area to Get Bonneville Energy Soon," *Seattle Times*, 12/5/1940.

⁵ "Construction Now 30% Complete at Covington," *Kent News-Journal*, 7/17/1941.

⁶ "Power Flows at Covington Station," *Seattle Times*, 3/7/1942.

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Built resources within the switchyard include transformers, circuit breakers, dead-end and support structures, bus work, disconnecting switches, and capacitor banks, among other energized equipment. The wide-gauge transfer tracks bisect the yard from northeast to southwest. The switchyard is flat and graveled and enclosed by multiple layers of chain-link fence. The Covington Switchyard has experienced normal change and upgrade over its 75 years of use, all of which allow it to function as an integral element of the BPA Pacific Northwest Transmission Network. As guided by the MPD, normal equipment upgrades that continue the historic function and the yard's overall visual character are not seen as detrimental to historic significance or integrity.

Transportation Paths (1942-present)

Shown in photographs taken throughout the history of the Covington Substation, the transportation paths within the substation were well-established by 1942. The distinctive road curbing connecting Covington Way, the Untanking Tower, and the Control House were all poured by the end of 1942. The roadbed itself through the substation was not paved until after the war, with asphalt showing up in photographs starting in 1952. The road curbing has a very distinctive curved face with a shallow slope (see Figure 14). Curves in the roadway are extremely gentle to accommodate the turning radius of large vehicles (see Figure 26). The road network through the station is mostly intact with only a few new curb cuts. The roadways are considered a historic contributing element within the Covington Substation Historic District. The sidewalks, on the other hand, have been added to over the years and are not a contributing element.

The rail lines, both the wide gauge through the switchyard and the standard gauge from the railroad bridge through the Untanking Tower, are a distinctive feature of the substation (Photo 10). The rails were critical in moving large pieces of machinery from the source to the substation during construction and during maintenance and replacement. Machinery came in on rail cars at the eastern edge of the substation from a spur off the Northern Pacific rail line (now the BNSF railway). The rail spur came across a rail bridge spanning the Jenkins Canal and into the substation. From there, the rail spur made a straight run to the northwest to the Untanking Tower, through the Untanking Tower's Assembling Room, and out the other side toward the former oil tank area (see Figure 9). The wide gauge rail crossed the standard gauge spur inside the Untanking Tower. This junction of differing rail widths was accommodated by the Assembling Room's 125-ton gantry crane. The huge doors on the three sides of the Untanking Tower's rear projection allowed entry of even the largest machinery (see Photo 2). The rail lines are considered a historic contributing element of the Covington Substation Historic District.

Automotive Storage Bunker (1944)

The Automotive Storage Bunker (Photo 12) is a barrel-roofed structure located directly behind and accessed from are rear door in the HMEM Shop. The all-steel structure has vented access panels on either end and rests on a concrete pad. It was built in 1944 and is a repurposed synchronous condenser. It even has an original cast plaque stating "Westinghouse" above the entry. This structure was moved to this location sometime between 1977 and 1982 (based on aerials) and repurposed for storage following the discontinuation of condensers in the Switchyard. Based on the MPD, the loss of original use and its subsequent relocation after the period of significance mean that the Automotive Storage Bunker is considered a non-contributing structure to the Covington Substation Historic District.

Landscaped Areas (1952-present)

It is evident that the builders of the BPA network were primarily concerned with utility, but not entirely to the exclusion of aesthetics. The original main entrance focused on an imposing sight, the Untanking Tower, set in a park-like setting with lawns to each side of the drive and judiciously placed trees and shrubbery enhancing, rather than concealing, the building. However, the view of the substation's main business, the Switchyard and its transformers, remained hidden until one turned to the left or right and even then, the yard's tangle of towers and wires would have been softened by plantings along the perimeter fence.

According to George Kramer's 2015 determination of eligibility report, "Landscaped grounds were a prominent feature of BPA's Master Grid-era facilities, initially spurred by J.D. Ross's interest in horticulture." While that

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may have been a guiding intent, it was not initially implemented. On January 1, 1944, *The Seattle Times* noted that the Covington Substation "…was erected to serve the Puget Sound area -- and yesterday it was 95 per cent completed. Landscaping hasn't been completed, so manpower can be saved. In wartime it's utility that counts."

Following the war, formalizing the landscape became an active concern, as indicated by planting plans from 1952 (see Figure 26). Two of the four 1952 landscape plan sheets still exist. One has a general overview of the area from the Control House to the Untanking Tower, plus a lengthy plant list. The other shows more detail of the plantings in front of the Untanking Tower. In general, the design focuses on softening building edges with foundation plantings and following fence lines. Larger plants and trees are asymmetrically placed into expanses of lawn, and do not serve to conceal but rather enhance the new buildings. The list of plants contains many varieties commonly found in Pacific Northwest gardens including spireas, rhododendrons, and dogwoods, among others.

Based on period photos, the 1952 plan was mostly followed around the Untanking Tower, but less so at the Control House, where it appears planting commenced before a plan was in place. In aerial photographs, the overall site was dominated by lawn in 1956, with a long swath of grass running northeast from the Control House all the way to a driveway behind the Temporary Warehouse (demolished by 1963). The Temporary Warehouse and Untanking Tower were both fronted by lawns, with foundation plantings and scattered trees. As the Switchyard expanded, the amount of lawn decreased. Between 1985 and 1991, the trees in front of the Untanking Tower were largely replaced. A wedge-shaped, graveled storage area was inserted to the northwest of the Untanking Tower and partially concealed by a perimeter of ornamental cherry trees. The new arrangement was more symmetrical than that established in 1952, with the eye forced to the entrance of the building by an amphitheater of trees.

The focus of the landscaping was in front of the Untanking Tower and in front of the Control House (Photos 1 and 7). Originally, these two areas were connected with landscaping, which is not present today. The configuration of plantings and plant types has evolved over time. In general, the plantings as described on the 1952 plans and what actually developed have been mostly in beds following foundations and fence lines. Trees were placed to either side of the Untanking Tower and the Control House, not directly in front of the two buildings. Therefore, the planting beds, open lawn, and flanking tree areas in front of the Untanking Tower and Control House to the access road are historic contributing elements within the Covington Substation Historic District. Only the areas, not the plants, are contributing elements.

HMEM Shop (1953)

The Heavy Machinery and Equipment Maintenance (HMEM) Shop (Photos 11 and 12) was built in 1953 as the Automotive Shop from a BPA design. Measuring 36' x 98', the shop has seven overhead door bays that face northeast with a small office at the north end below a small projecting concrete canopy. The rear side, abutting the switchyard, retains original multi-pane, steel sash windows. While the overhead doors have been replaced, the HMEM Shop remains largely intact and continues to serve its original function. The HMEM Shop is considered a historic contributing element to the Covington Substation Historic District.

Communication Building (1958)

The original portion of the Communication Building (Photo 15) was designed by the BPA and constructed in 1958. The simple structure is one story and constructed of concrete block. The 27'4" deep and 35'4" wide volume is located opposite the Control House, facing an internal road. Detailing is simple, with a steel sash operable window into an office, an entry door and a steel roll-up garage door that leads to the interior shop, with both doors sheltered by a projecting concrete canopy. Matching steel sash windows face east, lighting the office, with another window to the rear, in the restroom. The original flat-roof volume is supported by a series of metal trusses, with the office area modified by a later drop ceiling.

In 1977 BPA designed a maintenance shop addition to the building's right side (i.e., southwest elevation). Also built of concrete block, this addition is generally compatible with the original design. One of two original

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exterior windows (on the interior wall) were retained while a second opening was enlarged to create a large wooden sliding door between the spaces. Likely at this time the entire exterior was stuccoed, although the vertical seam between original and addition remains plainly visible. The roof was modified to create a shallow side gable, now clad with standing seam metal. Although modified and expanded in 1977, shortly after the end of the MPD's period of significance, the Communications Building retains sufficient integrity to reflect its original character and function in the BPA network. The Communications Building is counted as a historic contributing feature to the Covington Substation Historic District.

Automotive Storage Building (1959)

The Automotive Storage Building (Photo 13) is a 48' x 115' open-front structure serving as shelter for vehicles. The main volume of the building was designed by the BPA and constructed in 1959. The leftmost (southeast) bay has been filled in with an overhead door. A gabled canopy was added to the front of the building as an independent steel structure sometime between 1994 and 2004. There is also is an independent bay attached to the left end (southeast side) of the building. While modified, the Automotive Storage Building remains an integral element of the central service area of the substation and retains sufficient integrity to relate its original design and function. The Automotive Storage Building is considered a contributing resource within the Covington Substation Historic District.

Maintenance Warehouse (1959-60)

The Maintenance Warehouse (Photo 14) was designed in 1957 and completed in 1960. The large, one-story building with loft was constructed with a steel frame. The walls are clad in aluminum and plastic sheet siding and its nearly flat roof is asphalt. The 100' x 200' structure replaced the Temporary Warehouse (built as part of the original substation) that was located southeast of the Untanking Tower. As documented on BPA Drawing No. 811-25-342- 01, the Maintenance Warehouse appears to have been based upon "Type 401" warehouse design, developed in-house for BPA's needs during the period of system expansion in the late-1950s and 1960s. Its windows have been replaced with fixed and sliding vinyl sash. The Maintenance Warehouse has been minimally modified and upgraded and is considered a historic contributing element to the Covington Substation Historic District.

Control House Flammable Storage (1966)

The Control House Flammable Storage (Photo 20) is a small 6' x 6' metal storage vault located immediately west of the battery room entrance at the rear of the Control House. Dating to 1966, this small utilitarian storage building was designed and built by BPA and is compatible with the overall character of the substation. The Control House Flammable Storage is a historic contributing structure within the Covington Substation Historic District.

Microwave Tower (c.1966)

Based on aerials, the Microwave Tower (Photo 19) was erected between 1964 and 1968, and is located about 150 feet south of the Control House. The tower is a galvanized steel lattice tower approximately 100 feet tall. The BPA built their own internal microwave and radio communications system in the mid- to late-1950s. While equipment changes continually, the tower remains an important functional part of the BPA system. The Microwave Tower is a historic contributing structure within the Covington Substation Historic District.

TLM Vehicle Canopy (1971)

The TLM Vehicle Canopy (Photo 18) is an open-sided pole structure with a simple shed roof. The Transmission Line Maintenance (TLM) Vehicle Canopy is located west of the Automotive Storage Building at the fence line. The structural system appears to be portions of wooden, creosote-soaked utility poles. Reportedly built in 1971, near the end of the period of significance, no plans for the structure have been located and it appears to have been built idiosyncratically at Covington. The canopy is atypical of BPA development, and is not considered consistent with the MPD registration standards. Therefore, the TLM Vehicle Canopy is counted as a non-contributing feature within the Covington Substation Historic District.

Engine Generator Building (1973)

The Engine Generator Building (Photo 21) is a metal vault set upon a concrete pad that houses a generator to provide back-up power. The vault was designed by BPA in 1972 and built in 1973. It is described as a "modified Type 193 aluminum control house" (BPA Drawing 214058B-DSM-D). While not of any notable design, the function of a backup engine generator is an integral element in the operation of the Substation. Therefore, the Electrical Generator Building is counted as a contributing structure within the Covington Substation Historic District.

PSC & SPC Office (1996)

Assembled on-site in 1996, the PSC & SPC (Power System Control & System Protection Control) Office (Photo 16) is a three-bay, one-story modular building that stands at the southeastern fence line next to the SPC Shop. The two buildings are connected by a shared common entry porch at the northeast end. There is a main entrance on its northwest side marked by a gablet and another entrance on its southwest end. The roof is gabled and clad in metal. The walls are clad in vertical-groove plywood siding and windows are vinyl sliders. A foundation skirt masks its floor frame. Erected after the period of significance, the PCS & SPC Office is a non-historic, non-contributing building within the Covington Substation Historic District.

SPC Shop (2004)

Towed on-site in 2004, the SPC (System Protection and Control) Shop (Photo 16) is a 260 square foot modular building that stands at the southeastern fence line next to the PSC & SPC Office. The two buildings are connected by a shared common entry porch. It is one story with a nearly flat roof. The walls are clad in vertical-groove plywood siding and windows are small vinyl sliders. A foundation skirt masks its floor frame. Erected after the period of significance, the SPC Shop is a non-historic, non-contributing building within the Covington Substation Historic District.

District Office (2008)

Assembled on-site in 2008, the District Office (Photo 17) is a three-bay modular building that stands near the substation entrance across from the Maintenance Warehouse. It is one story with a nearly flat roof. The walls are clad in vertical-groove plywood siding and windows are small sliders. Entrance decks mark its north corner (front) and southeast side (rear). A skirt of vertical-groove plywood masks its floor frame. Erected after the period of significance, the District Office is a non-historic, non-contributing building within the Covington Substation Historic District.

Fueling Station (2011)

Built in 2011, the Fueling Station (Photo 22) is a one-story, shed-roofed structure used to house a fuel tank. It stands directly behind the Automotive Storage Building. Its open front is framed in heavy timber while the other three sides are standard stud construction. The sides and roof are clad in metal. Its approximately 16' x 16' footprint is secured to a concrete pad. Erected after the period of significance, the Fueling Station is a non-historic, non-contributing structure within the Covington Substation Historic District.

Conclusion

The Covington Electrical Substation has a high degree of historical integrity as it pertains to the period of significance, 1942-1974. Integrity of location is still excellent, as the substation sits on the edge of current suburban development to its northeast. The BPA owns undeveloped acreage beyond its perimeter fence, particularly to the southwest, that helps maintain the substation's rural feel. The BNSF Railway lines its long southeastern border with Jenkins Creek sandwiched in between.

The original design of the substation, the materials of which it was built, and the original craftsmanship all have high physical integrity. The substation has 12 resources that are contributing and 6 resources that are non-contributing; however, the principal resources to the substation are all contributing. The substation still has the feel of a substation first energized in 1942. There have been alterations over time, but that is an accepted part of an electrical substation's operation and is within the parameters of the MPD.

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Name of Property

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)



Property is associated w significant contribution to history.



Property is associated w significant in our past.

С Х

Property embodies the d of a type, period, or meth represents the work of a artistic values, or represe distinguishable entity wh individual distinction.



Property has yielded, or important in prehistory or

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

	A	Owned by a religious institution or used for religiou purposes.
	в	removed from its original location.
	С	a birthplace or grave.
	D	a cemetery.
	Е	a reconstructed building, object, or structure.
	F	a commemorative property.
Χ		loss than 50 years ald at achieving significance

less than 50 years old or achieving significance within the past 50 years.

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	ENGINEERING
ith events that have made a the broad patterns of our	INDUSTRY
	POLITICS/GOVERNMENT
ith the lives of persons	
listinctive characteristics	
hod of construction or master, or possesses high	Poriod of Significance
ents a significant and	Period of Significance
ose components lack	1942-1945 – Development Period
	<u> 1946-1974 – Period of Expansion</u>
is likely to yield, information r history.	Significant Dates
,	-
	March 6, 1942 – Covington Station Energized
	Significant Person
stitution or used for religious	(Complete only if Criterion B is marked above.)
	N/A
l location.	
	Cultural Affiliation (if applicable)
	N/A
, object, or structure.	
rty.	Architect/Builder
	Hilgers, Albert W., BPA engineer (architect)

Areas of Significance

(Enter categories from instructions.)

C.F. Davidson Company (builder)

Period of Significance (justification)

The period of significance for the substation is 1942-1974, based on the Multiple Property Document to which the Covington Substation is being nominated. The period 1939-1945 is the BPA Development Period and the period 1946-1974 is the BPA Period of Expansion. The Covington Substation was part of the initial BPA development and then continued to expand through the 1946-1974 period. The boundary selected for the nomination corresponds to the area used by the substation in 1974.

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Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations).

Under the Multiple Property Document "Bonneville Power Administration [BPA] Pacific Northwest Transmission System," the Covington Electrical Substation meets the registration requirements for listing as a District under *Criterion A* in the areas of Engineering, Industry, and Politics/Government.

Within the Area of Significance of Engineering, the Covington Substation stands as an excellent example of 20th century innovation and ingenuity. Built beginning in 1940, Covington is a rare example of a nearly complete Master Grid-era substation. Within the Area of Significance of Industry, the substation is both an example of 20th century industrial design as well as a key component in the development of Pacific Northwest industrial development. Within the Area of Significance of Politics/Government, the Covington Substation is a representative of the Bonneville Power Administration and New Deal policies of Franklin Delano Roosevelt.

Under the MPD, the Covington Electrical Substation also meets the registration requirements for listing as a District under *Criterion C* for the substation's distinctive characteristics and high integrity within the BPA system.

Narrative Statement of Significance (Provide at least one paragraph for each area of significance.)

Historic Development⁷

The Bonneville Project Act was passed by the US Congress and signed into law by President Franklin Roosevelt in 1937. Its purpose was to distribute and market electricity generated from Federally-owned and operated hydroelectric dams on the Columbia River.⁸ A part of BPA's mission was to bring power to rural or underserved areas and to expand industrial development in the Pacific Northwest. In 1939, construction of BPA's transmission network began with the goal of linking the first two federal dams on the Columbia River, Bonneville and Grand Coulee, to the northwest electrical grid. The resulting "Master Grid" was designed to be expanded by construction of a series of lines radiating outward to spur development in the region.

After the United States entered World War II in late-1941, federal priorities shifted from rural electrification to defense. Emphasis was placed on developing wartime industry, primarily aluminum smelting, to supply shipyards in Portland and airplane factories around Seattle/Tacoma. BPA's Master Grid became the backbone of the Northwest Power Pool, a unified transmission system under the direction of BPA that merged public and private generation into a cooperative system to meet the area's electric needs. BPA power was a key element in the development of those industries and its availability was a primary factor in transforming the Pacific Northwest into a defense manufacturing center. Initially secret, BPA also provided power to serve the so-called "Mystery Load" in south central Washington, later revealed to be the Hanford Nuclear Reservation.

With the end of World War II, BPA returned to its original focus of expanding its transmission system to provide economic development in the Pacific Northwest by increasing the availability of reliable, low-cost, electric power to the region.

The Covington Substation was designed as a major hub in the original Master Grid development, serving as the primary BPA facility in King County, Washington, and initially providing power from Bonneville Dam through interconnections with Seattle City Light and Tacoma City Light, both existing public power providers,

⁷ The discussion of BPA and Covington Substation history is largely based on George Kramer's *Bonneville Power Administration [BPA] Pacific Northwest Transmission System* Multiple Property Documentation Form (March 2011), as well as, Kramer's *Covington Substation Historic District*, Determination of Eligibility (June 2015).

⁸ What is now BPA was originally called the "Bonneville Project" and was established as a temporary agency by Congress. The name was changed to the Bonneville Power Administration in 1940. Gus Norwood, *Columbia River Power for the People: A History of the Policies of the Bonneville Power Administration.* (Portland: U.S. Department of Energy/Bonneville Power Administration, 1980), 328.

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as well as providing direct supply to major industry. Covington was one of the largest substations in the BPA grid.⁹

"The Covington Substation, together with the 230,000-volt substations at Chehalis, Vancouver and Vernita, Washington, and a major switching station at North Bonneville, Washington, will form a complete loop, interconnecting the two government dams at Grand Coulee and Bonneville, and the municipal power systems of Seattle and Tacoma, into the greatest power pool in the world, said [S.E.] Schultz [Bonneville's Chief Engineer]".¹⁰

In the late 1930s, the location of the Covington Substation was in an unincorporated area of King County most closely associated with Kent, Washington. Named for Richard Covington, a railroad surveyor, the area was a stop on the Northern Pacific rail line that connected Kanasket to Auburn, and it grew following the construction of lumber mills. The Covington Lumber Mill, located at the junction of Soos and Jenkins Creeks, was established around 1901.¹¹ The mill prospered through the first two decades of the 20th century but failed at the onset of the Great Depression. The BPA acquired the mill property plus a parcel known as the "Stieres Place," around 55 acres through condemnation proceedings during the period 1940-41.¹² Additional parcels were purchased in 1956 and 1965.

Word that a large BPA substation would be built at Covington was announced in early 1940, and by June of that year, WPA workers began clearing the site. "No date has been announced for the start of construction work on the substation at Covington, however materials for the structure as well as large shipments of steel are expected to arrive...in about a month."¹³ In early July, construction of the Covington Substation began with a small warehouse. "It was reported that the substation will be located on property formerly occupied by a mill...George S. Smith, of Portland, arrived in Kent Monday to serve as superintendent of the construction work".¹⁴ Within a week a crew of 40 was pouring the foundation for a 40' x150' warehouse. "Jenkins Creek, which flows through the property...will be diverted into a new channel to the north of its present course, to provide additional space for the substation."¹⁵

Despite this guick beginning, construction at Covington was halted six weeks later in August 1940, likely due to lack of funding from the US Congress.¹⁶ By December 1940, Paul Raver, BPA Administrator, announced that electricity from the Bonneville Dam would soon be available to consumers in the Puget Sound region. Other reports of equipment contracts indicate that construction would again be underway at the "giant" Covington Substation.¹⁷

In January 1941, BPA released renderings of the two major structures to be built at Covington: the Control House and the Untanking Tower. More than \$1.6 million had already been allocated toward the project, with additional funding anticipated toward the total cost of \$2.24 million.¹⁸ Actual construction work on the Covington project was resumed in early May, with 24-hour crews rushing the substation toward completion. Relocating Jenkins Creek, construction of new railroad and roadway bridges over the new canal, and other site work was pushed forward at full speed. BPA crews were responsible for the construction of the switchyard and electrical transmission gear while the Control House and Untanking Tower were both contracted out to the C.F. Davidson Company of Tacoma. "Contract specifications call for the completion of

⁹ Craig Holstein and Gloria Lenz, Bonneville Power Administration, Master Grid Discontiguous Historic District, National Register of Historic Places Nomination Form, 1987, Section 7-17.

 ¹⁰ "Covington Substation to be Energized in Spring," *Kent News-Journal*, 12/18/1941.
 ¹¹ Kate Kershner. "Covington - Thumbnail History." Online at http://www.historylink.org/File/10337, accessed 11/17/2017.

¹² "Warehouse Rising on 55-Acre Covington Substation Site," Kent News-Journal, 7/11/1940.

¹³ "Bonneville Line Work to Start," Kent News-Journal, 6/6/1940.

¹⁴ "Work Started on Covington Substation," Kent News-Journal, 7/4/1940.

¹⁵ Warehouse Rising on 55-Acre Covington Substation Site," Kent News-Journal, 7/11/1940.

¹⁶ "Substation Work Halted Temporarily," Kent News-Journal, 8/29/1940.

¹⁷ "Sound Area to Get Bonneville Energy Soon," Seattle Times, 12/5/1940; "Bid of G.E. Low on Machinery," Oregonian, 12/17/1940.

¹⁸ "Substation Buildings for Covington," *Kent News-Journal*, 1/23/1941.

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two buildings in 120 working days....^{*19} By mid-July, the Davidson Company was well underway on both structures and BPA crews were busy building the switchyard.²⁰

Security at Covington, which had been tight beginning in May 1941 when all photography was prohibited, was tightened after Japan's attack on Pearl Harbor. Work was rushed even faster, as the Puget Sound area's role in the nation's defense manufacturing grew during wartime. The Covington-Seattle 230kV line was energized on March 6, 1942, and the 115kV Covington-Tacoma line was energized the following day.²¹ "Energizing of the Bonneville Power Administrations' \$2.2 million substation at Covington, nine miles east of Auburn, was announced last night by U.J. Gendron, Assistant Administrator.²²

Three Grand Coulee-Covington lines, each between 183 and 185 miles long, were completed later that year.²³ "The Grand Coulee-Covington Section of 183 miles is the longest uninterrupted high voltage steel tower line in the world, Bonneville engineers said."²⁴ Additional lines through Covington were energized throughout the 1950s and beyond, cementing the substation's role as one of the major hubs in the BPA Pacific Northwest Transmission Network.

While originally envisioned as an economic development strategy to improve the conditions of the Pacific Northwest as a whole, the completion of the Covington Substation, and its critical link to the abundant power generation of Bonneville and Grand Coulee dams, was also a key element of the federal government's military preparedness. The massive power potential of the Columbia River and the cheap electricity its development would create through the construction of the "Northwest Power Pool," was a key factor in transforming Seattle and the region into a WWII-era defense manufacturing center.²⁵ "In the Puget Sound area, war contracts were soon revitalizing moribund industries, with a swell flow of urgent orders for water materials, equipment and supplies."²⁶ Largely due to aluminum refining, which in turn led to airplane fabrication by the Boeing Aircraft Company, shipbuilding and other industries, Seattle was ranked as one of the top three cities in the nation for war contracts per capita. "During the war BPA delivered more electricity for war-related purposes than all the other power systems in the region had developed and marketed up to that time."²⁷

With the end of World War II, demand for electricity in the Pacific Northwest grew significantly as the population grew. In King County alone the population grew from 505,000 in 1940 to 733,000 in 1950; a trend that would continue.²⁸ Before other stations could come online, the demand on the Northwest Power Pool was severe, leading to occasional brownouts and even outages. In October 1949, a lightning strike shut down the entire system. "It was the first time, Bonneville Power Administration officials said, that their two major substations, at Ross and Covington, went 'dead' [at the same time]".²⁹

To meet the growing demand, BPA embarked upon a major construction campaign to increase the scope of its network, taking advantage of newly constructed dams within the Columbia Basin, such as McNary Dam (1954). As the key 230kV substation in the Puget Sound area, Covington grew significantly. Among the additions, a new \$2 million line from Covington to Olympia was authorized in late 1948. In 1950, construction of a new line from Grand Coulee, touted as the "World's Biggest Cable," began.³⁰ In 1951, BPA announced plans to spend nearly \$12 million on transmission improvements in the Puget Sound area alone, a significant

¹⁹ "Work on Huge Covington Substation Project Rushed," Kent News-Journal, 5/22/1941.

²⁰ "Construction Now 30% Complete at Covington," Kent News-Journal, 7/17/1941.

²¹ BPA. Annual Report. 1942, 3.

²² "Power Flows at Covington Station," *Seattle Times*, 3/7/1942.

²³ BPA. Annual Report, 1942, 23.

²⁴ "Covington-Coulee Line Energized to Complete Circuit," Kent News-Journal, 7/30/1942.

²⁵ The Northwest Power Pool was a cooperative transmission system developed by BPA that allowed private and public owned generation facilities throughout Oregon, Washington and beyond to share generation through the BPA Master Grid transmission "backbone," to maintain steady supply throughout the war. The success of the Power Pool led to continued cooperation between private and public utilities after the war, a sharp change from their history of animosity that colored those relationships earlier.
²⁶ James R. Warren. "World War II Home Front on Puget Sound." Online at http://www.historylink.org/File/1664, accessed 11/17/2017.
²⁷ Paul Dorpat and Genevieve McCoy, *Building Washington: A History of Washington State Public Works*. (Seattle: Tartu Publications, 1998), 298.

²⁸ US Department of Commerce, *Census of Population, 1960.* (Washington, D.C.: US Bureau of the Census, 1961), 49-12.

²⁹ "Lightning Halts Northwest Power," Oregonian, 10/7/1949.

³⁰ "President Signs Bill Aiding Columbia Basin, Bonneville," Oregonian, 10/13/1949.

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portion of a nearly \$70 million program planned during the decade. Given Covington's position, many of the King County improvements would result in expansion to the yard and its related support facilities.³¹

Part of the expansion of the substation during the 1950s included the construction of new buildings at Covington to provide for additional maintenance, storage, and operations facilities. In 1953, the BPA planned and constructed a new Automotive Repair shop (now the HMEM Shop); in 1957, a new Communications Building; in 1958, the Automotive Storage building; and then in 1960, replaced the temporary wood warehouse with a larger, steel-framed Maintenance Warehouse. These structures as well as multiple additional ones erected after 1961 remain on the site.

Significance

The Covington Substation, as established by the BPA Transmission System MPD, is characterized by the development pattern within two sequential periods of significance. The first, the *Master Grid Period* (1938-1945), encompasses the initial development period at Covington, including the design and construction of the Switchyard, Control House and Untanking Tower. BPA's second period of significance, *System Expansion* (1946-1974) includes the development of support buildings at Covington, such as Auto Storage, Auto Repair, Communications, and Microwave systems, as well as, the large District Maintenance Warehouse. Other smaller buildings, built after 1974, are generally of standard, pre-manufactured design and are not considered historic; however, their small footprints, discrete functions, and scattered placement, supports the overall historic character of the site as a working substation.

The multiple resources of the Covington Substation, spanning 75 years of BPA use, are significant for their design and function within the BPA Transmission System. As a facility built and continuously operated for the function of supplying power efficiently to the Seattle/Puget Sound region, the Covington Substation has strong and unbroken association with the development and operation of the BPA network.

Multiple Property Document Registration Requirements

The BPA's Covington Substation is being nominated to the National Register under the "Bonneville Power Administration [BPA] Pacific Northwest Transmission System" Multiple Property Documentation Form. Covington meets the minimum eligibility requirements for a substation as outlined by the MPD: It was designed at the direction of the BPA, it was operated by the BPA during the period of significance, it was energized prior to 1975, and it continues its original function relative to the transmission of electricity. The substation has not been altered to meet a function other than use as a transmission facility and its elements retain sufficient historical integrity (as discussed in Section 7) to convey its historic appearance as well as its significance under Criterion A in association with Engineering, Industry, and Politics/Government in Washington State.

Conclusion

BPA's Covington Substation covers about 37 acres of land southeast of Kent, in the City of Covington, King County, Washington. The substation contains 18 identified individual built resources, including buildings, structures and landscape features/sites, related to the history and operation of the BPA Transmission System. There are 12 individual resources are identified as having been built during the two Periods of Significance documented in the BPA Pacific Northwest Transmission System MPD and retain sufficient integrity to be considered eligible for listing on the National Register. These resources are best evaluated as a district and the Covington Substation Historic District is considered eligible for listing on the National Register of Historic Places under Criterion A, for association with the BPA transmission system. Furthermore, the Covington Electrical Substation also meets the registration requirements for listing as a District under *Criterion C* for the substation's distinctive characteristics and high integrity within the BPA system.

³¹ "B.P.A. to Spend \$11,770,000 in Sound Area," Seattle Times, 1/21/1951.

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(Expires 5/31/2015)

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Previous documentation on file (NPS):

- 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 # _____ recorded by Historic American Landscape Survey # _____

- Primary location of additional data:
- ____State Historic Preservation Office
- Other State agency
- x Federal agency Local government
- University
- Other
- Name of repository: BPA, Portland headquarters

Name of Property

10. Geographical Data

Acreage of Property 36.93

(Do not include previously listed resource acreage; enter "Less than one" if the acreage is .99 or less)

Latitude/Longitude Coordinates

Datum if other than WGS84:

(enter coordinates to 6 decimal places)

1 <u>47.350995</u>	<u>-122.120379</u>	3 <u>47.345633</u>	<u>-122.123353</u>
Latitude	Longitude	Latitude	Longitude
2 <u>47.349037</u>	-122.117211	4 <u>47.346813</u>	-122.124816
Latitude	Longitude	Latitude	Longitude

Verbal Boundary Description (Describe the boundaries of the property.)

The nominated property is located at 28401 Covington Way SE in Covington, Washington. It is located in Township 22N, Range 5E, Sections 35 and 36 in King County. Portions of King County tax lots 362205-9010, 362205-9026, and 352205-9054 are being nominated (see Figure 6). The boundary matches the outer fence line surrounding the substation property in 2017 (see Figure 7).

Boundary Justification (Explain why the boundaries were selected.)

The boundary selected corresponds to the area used by the substation in 1974. This 1974 "use area" is larger than the area used by the substation in 1942, when substation construction was initially completed. The use area expanded to add 9.87 acres to the southwest for an extension to the station yard and 5.55 acres to the north for the 1958 warehouse (see Figure 6). The use area in 1974 closely matches the outer fence line surrounding the substation in 2017.

11. Form Pre	pared By	
name/title	David Pinyerd and Bernadette Niederer	date February 16, 2018
organization	Historic Preservation Northwest	telephone <u>541-791-9199</u>
street & numb	er <u>1116 11th Ave SW</u>	email _pinyerd@hp-nw.com
city or town	Albany	state OR zip code 97321

Additional Documentation

Submit the following items with the completed form:

- General Location Map
- Specific Location Map
- Tax Lot Map
- Site Plan
- Floor Plans (As Applicable)
- **Photo Location Map** (Include for historic districts and properties having large acreage or numerous resources. Key all photographs to this map and insert immediately after the photo log and before the list of figures).

King County, WA

County and State

Name of Property

Photographs:

Submit clear and descriptive photographs. The size of each image must be 3000x2000 pixels, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property:	Covington Electrical Substation	on BPA		
City or Vicinity:	Covington			
County:	King	State:	WA	
Photographer:	Bernadette Niederer			
Date Photographed:	May 18, 2017			

Description of Photograph(s) and number, include description of view indicating direction of camera:

Photo 1 of 22:	Public side of Untanking Tower (1942), looking southwest. (WA_KingCounty_CovingtonSubstation_0001)
Photo 2 of 22:	Non-public side of Untanking Tower (1942), looking northeast. (WA_KingCounty_CovingtonSubstation_0002)
Photo 3 of 22:	Non-public side of Untanking Tower (1942), looking east. (WA_KingCounty_CovingtonSubstation_0003)
Photo 4 of 22:	Public entry porch, Untanking Tower (1942), looking northwest. (WA_KingCounty_CovingtonSubstation_0004)
Photo 5 of 22:	Loading dock of Untanking Tower (1942), southeast side, looking west. (WA_KingCounty_CovingtonSubstation_0005)
Photo 6 of 22:	Window detail, workroom, Untanking Tower (1942), looking north. (WA_KingCounty_CovingtonSubstation_0006)
Photo 7 of 22:	Public side of Control Building (1942), looking northwest. (WA_KingCounty_CovingtonSubstation_0007)
Photo 8 of 22:	Switchyard side of Control Building (1942), looking southeast. (WA_KingCounty_CovingtonSubstation_0008)
Photo 9 of 22:	Side entry detail, northeast side, Control Building (1942), looking west. (WA_KingCounty_CovingtonSubstation_0009)
Photo 10 of 22:	The Switchyard, Untanking Tower at center, looking northeast. (WA_KingCounty_CovingtonSubstation_0010)
Photo 11 of 22:	Front façade, HMEM Shop (1953), looking south. (WA_KingCounty_CovingtonSubstation_0011)

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Photo 12 of 22:	Rear façade, HMEM Shop (1953), looking east. (WA_KingCounty_CovingtonSubstation_0012)
Photo 13 of 22:	Automotive Storage (1959), looking west. (WA_KingCounty_CovingtonSubstation_0013)
Photo 14 of 22:	Maintenance Warehouse (1959), from roof of Untanking Tower, looking north. (WA_KingCounty_CovingtonSubstation_0014)
Photo 15 of 22:	Communications Building (1958), looking southeast. (WA_KingCounty_CovingtonSubstation_0015)
Photo 16 of 22:	SPC Shop (2004) and PSC & SPC Office (1996), looking south. (WA_KingCounty_CovingtonSubstation_0016)
Photo 17 of 22:	District Office Building (2008), looking east. (WA_KingCounty_CovingtonSubstation_0017)
Photo 18 of 22:	TLM Vehicle Canopy (1971), looking southwest. (WA_KingCounty_CovingtonSubstation_0018)
Photo 19 of 22:	Microwave Tower (c.1968), looking southwest. (WA_KingCounty_CovingtonSubstation_0019)
Photo 20 of 22:	Control House Flammable Storage Building (1966), looking south. (WA_KingCounty_CovingtonSubstation_0020)
Photo 21 of 22:	Engine Generator Building (1973), looking south. (WA_KingCounty_CovingtonSubstation_0021)
Photo 22 of 22:	Fueling Station (2011), looking east. (WA_KingCounty_CovingtonSubstation_0022)

Property Owner: (Complete this item at the request of the SHPO or FPO.)		
name Bonneville Power Administration		
street & number <u>905 NE 11th St</u>	telephone 503-230-3000	
city or town Portland	state OR zip code 97232	

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

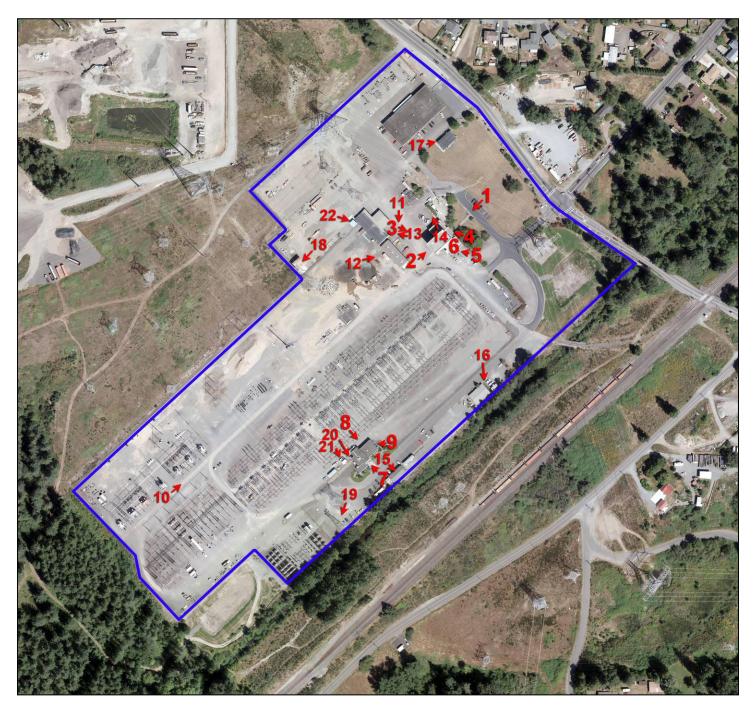
United States Department of the Interior National Park Service / National Register of Historic Places Registration Form NPS Form 10-900 OMB No. 1024-0018

Covington Electrical Substation BPA Name of Property

(Expires 5/31/2015)

King County, WA County and State

Photo Location Map



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List of Figures

(Resize, compact, and paste images of maps and historic documents in this section. Place captions, with figure numbers above each image. Orient maps so that north is at the top of the page, all document should be inserted with the top toward the top of the page.

Figure 1. The Covington Electrical Substation BPA historic district (boundary shown in blue at right edge) is approximately 4.5 miles northeast of Auburn and 5 miles southeast of Kent.

Figure 2. USGS 7.5-minute series map (Black Diamond, Washington, 1994) showing the Covington Electrical Substation BPA historic district boundary in blue.

Figure 3. A 2016 BPA aerial showing the Covington Electrical Substation BPA historic district boundary in blue. The area enclosed by the blue line is 36.93 acres.

Figure 4. A 2016 BPA aerial showing the Covington Electrical Substation BPA historic district boundary in blue. Red labels point to the principal structures within the district including construction completion dates in parentheses.

Figure 5. King County tax lot map (2015) showing the Covington Substation boundary in blue. The substation fence line includes portions of King County tax lots 362205-9010, 362205-9026, and 352205-9054 outlined in faint red.

Figure 6. The 1974 BPA aerial of the Covington Substation showing the 1956 "use area" bounded in green and the 1974 "use area" bounded in blue. Portions of King County tax lots 362205-9010, 362205-9026, and 352205-9054 are shown outlined in red.

Figure 7. A 1936 King County aerial showing the Covington Electrical Substation BPA historic boundary in blue. The area enclosed corresponds to the 1974 use area and does not correspond to tax lot boundaries.

Figure 8. A 1943 Army aerial showing the Covington Electrical Substation BPA historic boundary in blue. The Untanking Tower is visible under the "G" in "COVINGTON." The area enclosed corresponds to the 1974 use area and does not correspond to tax lot boundaries. (NW Sector No. 24-26 King County, Wash.)

Figure 9. A 1956 BPA aerial showing the Covington Electrical Substation BPA historic boundary in blue. The area enclosed corresponds to the 1974 use area and does not correspond to tax lot boundaries.

Figure 10. A 1974 BPA aerial showing the Covington Electrical Substation BPA historic boundary in blue. The area enclosed corresponds to the 1974 use area and does not correspond to tax lot boundaries.

Figure 11. View looking northeast through the Switchyard towards the Untanking Tower under construction in September 1941. Jenkins Creek still in the middle of the Switchyard before diversion to the southeastern edge of the complex. BPA photo C110-J51-343-41-9-10-(6398).

Figure 12. Panorama view looking northwest at the entire Covington complex in February 1942 still under construction. The Control House is at the left, the Switchyard in the middle, and the Untanking Tower at the right. The view is taken from the Jenkins Creek diversion canal. BPA photos C110-J51-343-42-2-17-1/5-(7479) through C110-J51-343-42-2-17-5/5-(7483).

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Figure 13. Covington Untanking Tower looking west in May 1942 soon after completion. Oil tanks still under construction at far right. BPA photo C110-J5.1-342.3-42-5-19-(8615).

Figure 14. Covington Control House looking north in August 1942 with protective plywood over the window openings. BPA photo 9005-342.1-42-8-11-(9078).

Figure 15. Covington Control House looking south in May 1951 with landscaping and a new location for the flagpole. BPA photo E35856.

Figure 16. Covington Communication Building looking east in June 1958 before addition. BPA photo E47513.

Figure 17. Covington Garage (aka HMEM Shop) looking south in June 1958 before door replacement. BPA photo E47517.

Figure 18. Covington Switchyard looking northeast circa 1959. Transformers at left, transfer track at center leading to Untanking Tower, and synchronous condenser at far right. A condenser unit was repurposed as storage and sits today behind the HMEM Shop. BPA photo E50612.

Figure 19. Covington Warehouse looking north in May 1960. BPA photo E51737.

Figure 20. Covington Automotive Storage looking northwest circa 1960 before canopy addition. Fuel dispensing booth at far right relocated approximately 100 feet northeast. BPA photo E52670.

Figure 21. Covington original site plan from March 1941. BPA plan 13321.

Figure 22. Covington Untanking Tower plan from March 1941. BPA plan 13323.

Figure 23. Covington Untanking Tower rear elevation from March 1941. BPA plan 13327.

Figure 24. Covington Control House plan from March 1941. BPA plan 10752.

Figure 25. Covington Control Building elevations from March 1941. BPA plan 10753.

Figure 26. Covington general planting plan from January 1952. BPA plan 61475.

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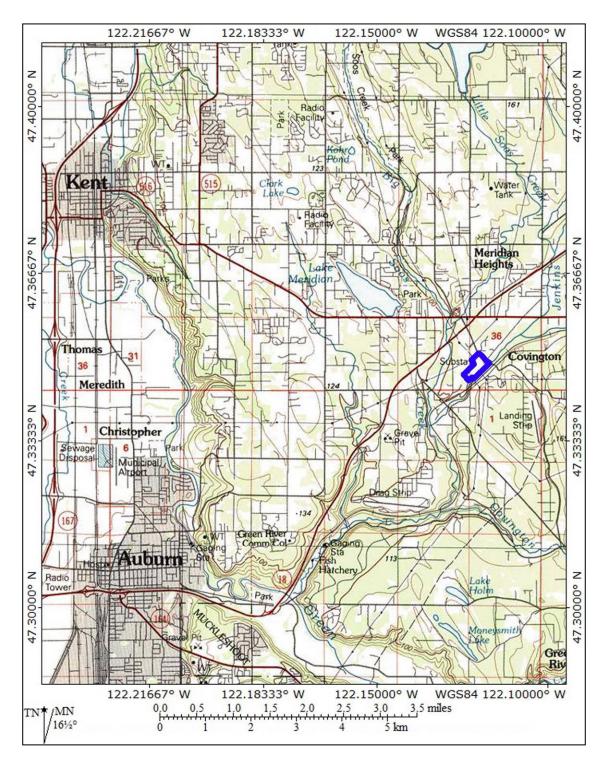
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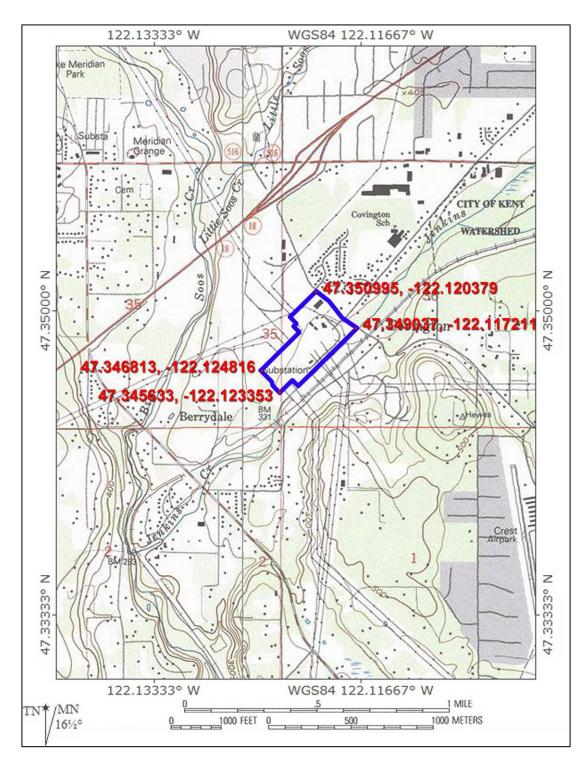
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Figure 1. The Covington Electrical Substation BPA historic district (boundary shown in blue at right edge) is approximately 4.5 miles northeast of Auburn and 5 miles southeast of Kent.



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Figure 2. USGS 7.5-minute series map (Black Diamond, Washington, 1994) showing the Covington Electrical Substation BPA historic district boundary in blue. The WSG84 coordinates of the principal corners are in red.



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Figure 3. A 2016 BPA aerial showing the Covington Electrical Substation BPA historic district boundary in blue. The area enclosed by the blue line is 36.93 acres.

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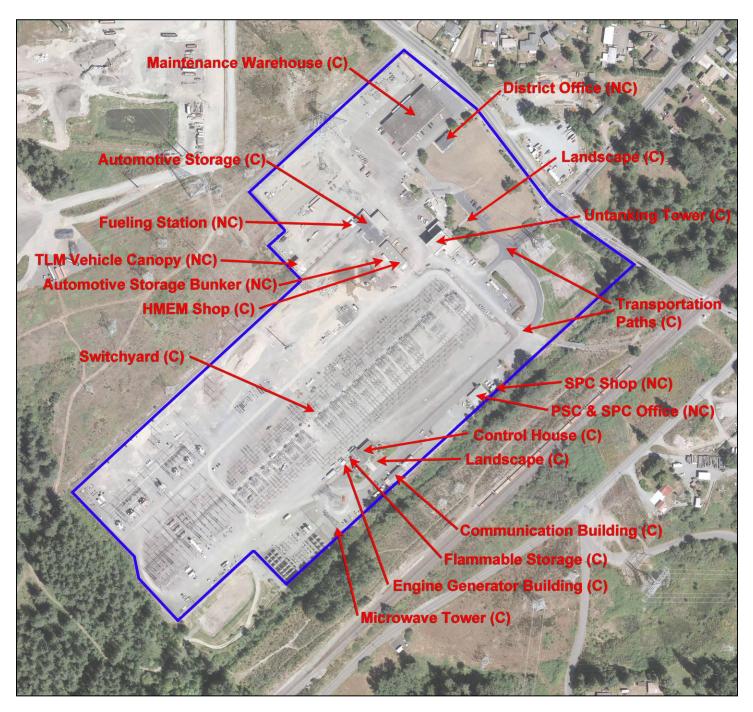
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Figure 4. A 2016 BPA aerial showing the Covington Electrical Substation BPA historic district boundary in blue. Red labels point to the contributing (C) and non-contributing (NC) buildings, structures and sites within the district.



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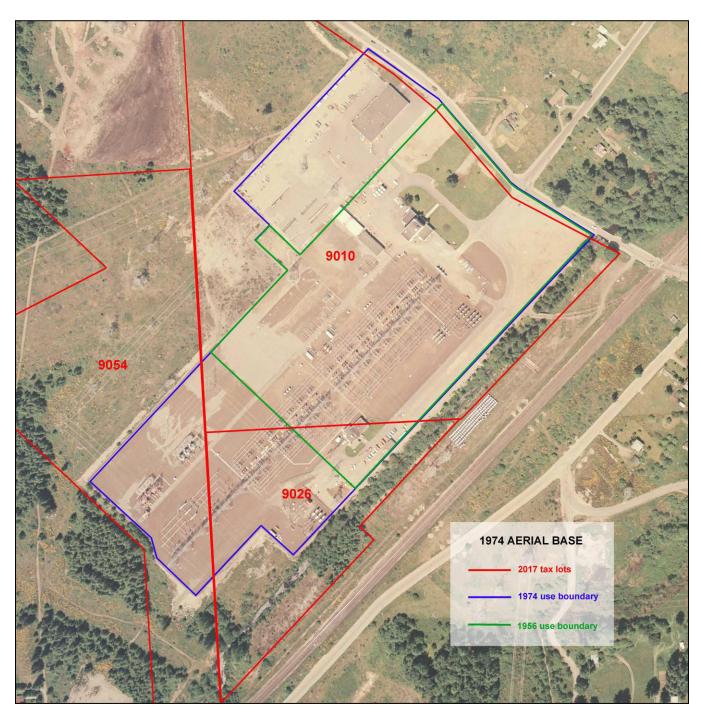
Figure 5. King County tax lot map (2015) showing the current Covington Substation boundary in blue. The substation fence line includes portions of King County tax lots 362205-9010, 362205-9026, and 352205-9054 outlined in faint red.



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Figure 6. The 1974 BPA aerial of the Covington Substation showing the 1956 "use area" bounded in green and the 1974 "use area" bounded in blue. Portions of King County tax lots 362205-9010, 362205-9026, and 352205-9054 are shown outlined in red.



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Figure 7. A 1936 King County aerial showing the Covington Electrical Substation BPA historic boundary in blue. The area enclosed corresponds to the 1974 use area and does not correspond to tax lot boundaries.



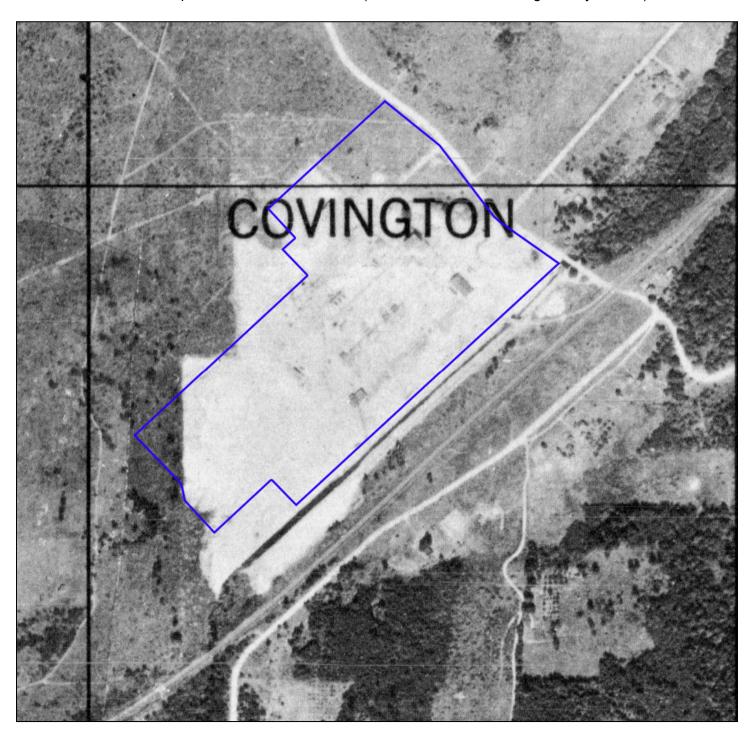
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Figure 8. A 1943 Army aerial showing the Covington Electrical Substation BPA historic boundary in blue. The Untanking Tower is visible under the "G" in "COVINGTON." The area enclosed corresponds to the 1974 use area and does not correspond to tax lot boundaries. (NW Sector No. 24-26 King County, Wash.)



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Figure 9. A 1956 BPA aerial showing the Covington Electrical Substation BPA historic boundary in blue. The area enclosed corresponds to the 1974 use area and does not correspond to tax lot boundaries.



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Figure 10. A 1974 BPA aerial showing the Covington Electrical Substation BPA historic boundary in blue. The area enclosed corresponds to the 1974 use area and does not correspond to tax lot boundaries.



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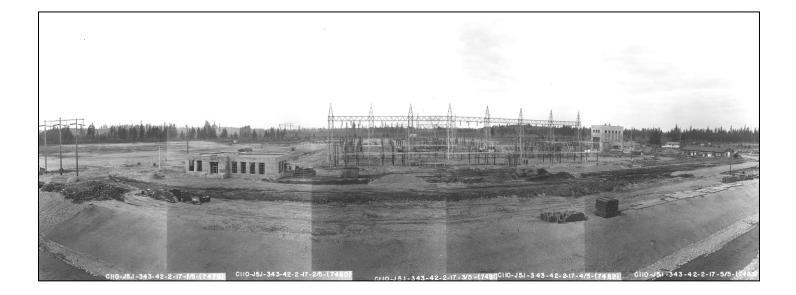
Figure 11. View looking northeast through the Switchyard towards the Untanking Tower under construction in September 1941. Jenkins Creek still in the middle of the Switchyard before diversion to the southeastern edge of the complex. BPA photo C110-J5.1-343-41-9-10-(6398).



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Figure 12. Panorama view looking northwest at the entire Covington complex in February 1942 still under construction. The Control House is at the left, the Switchyard in the middle, and the Untanking Tower at the right. The view is taken from the Jenkins Creek diversion canal. BPA photos C110-J5.1-343-42-2-17-1/5-(7479) through C110-J5.1-343-42-2-17-5/5-(7483).



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Figure 13. Covington Untanking Tower looking west in May 1942 soon after completion. Oil tanks still under construction at far right. BPA photo C110-J5.1-342.3-42-5-19-(8615).



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Figure 14. Covington Control House looking north in August 1942 with protective plywood over the window openings. BPA photo 9005-342.1-42-8-11-(9078).

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Figure 15. Covington Control House looking south in May 1951 with landscaping and a new location for the flagpole. BPA photo E35856.



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Figure 16. Covington Communication Building looking east in June 1958 before addition. BPA photo E47513.

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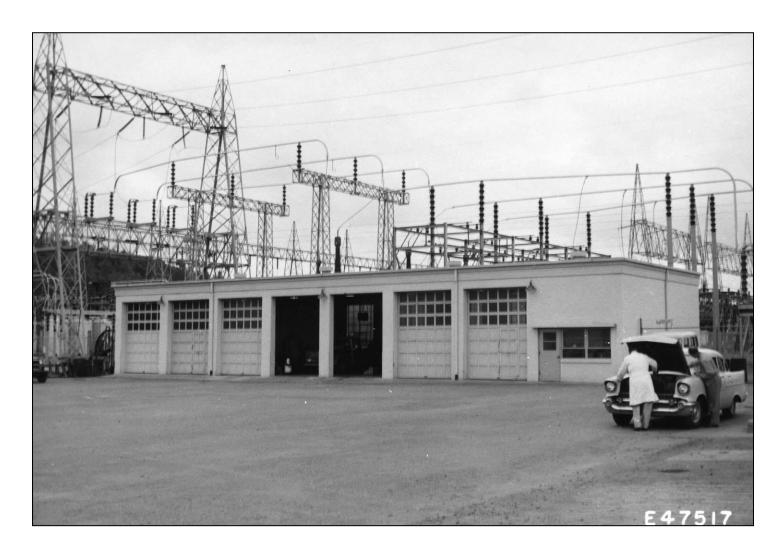
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Figure 17. Covington Garage (aka HMEM Shop) looking south in June 1958 before door replacement. BPA photo E47517.



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Figure 18. Covington Switchyard looking northeast circa 1959. Transformers at left, transfer track at center leading to Untanking Tower, and synchronous condenser at far right. A condenser unit was repurposed as storage and sits today behind the HMEM Shop. BPA photo E50612.



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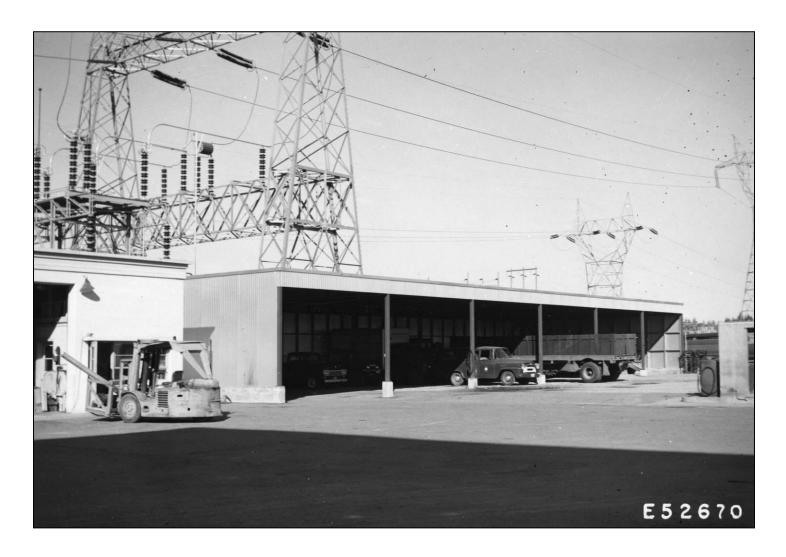
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Figure 19. Covington Warehouse looking north in May 1960. BPA photo E51737.



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Figure 20. Covington Automotive Storage looking northwest circa 1960 before canopy addition. Fuel dispensing booth at far right relocated approximately 100 feet northeast. BPA photo E52670.

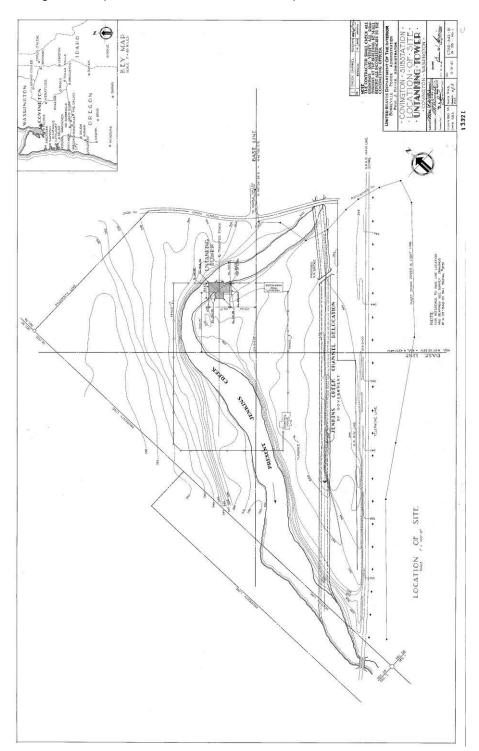


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Figure 21. Covington original site plan from March 1941. BPA plan 13321.



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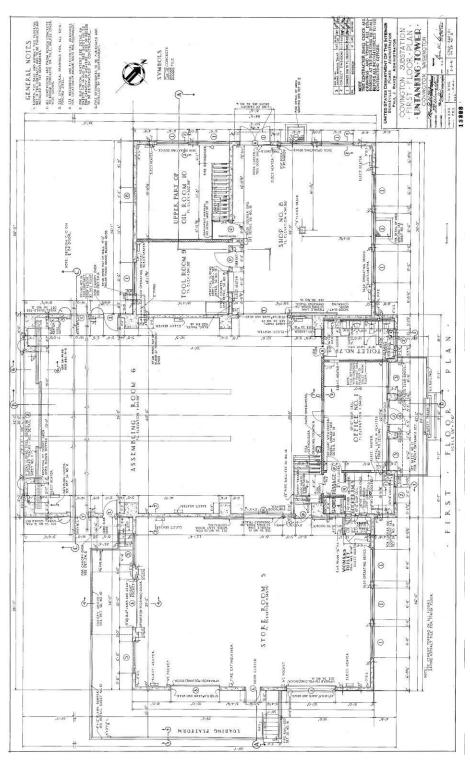
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Figure 22. Covington Untanking Tower plan from March 1941. BPA plan 13323.

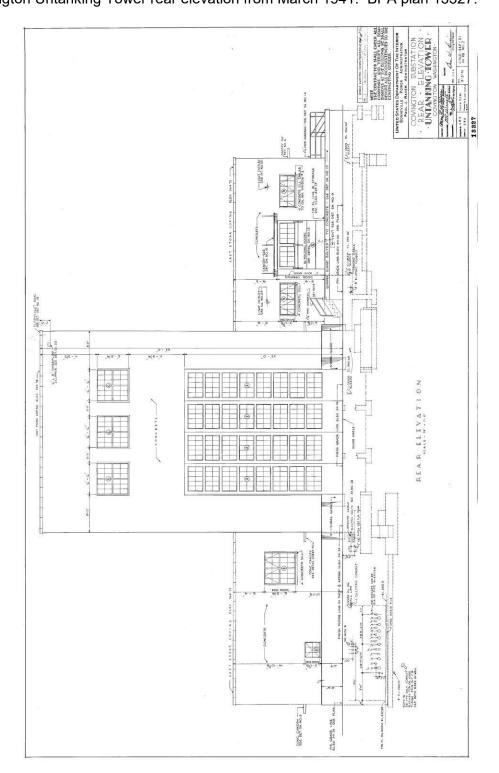


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Figure 23. Covington Untanking Tower rear elevation from March 1941. BPA plan 13327.



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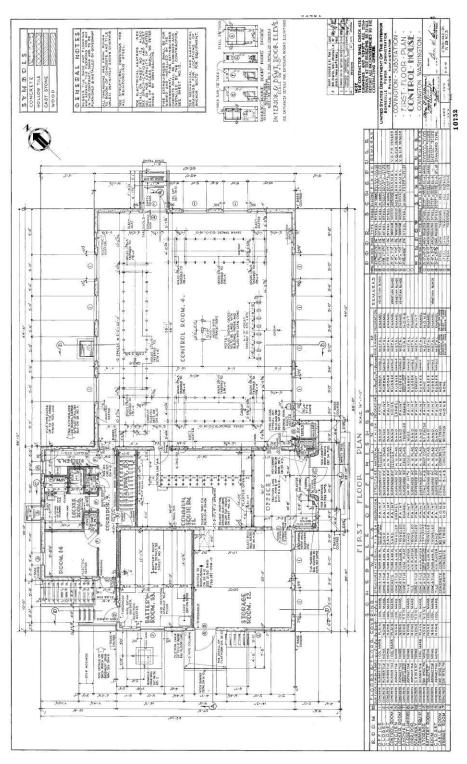
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Figure 24. Covington Control House plan from March 1941. BPA plan 10752.



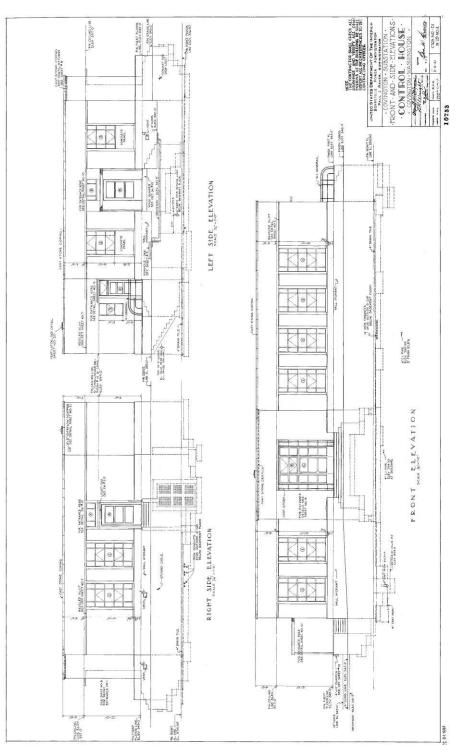
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Figure 25. Covington Control Building elevations from March 1941. BPA plan 10753.



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Figure 26. Covington general planting plan from January 1952. BPA plan 61475.

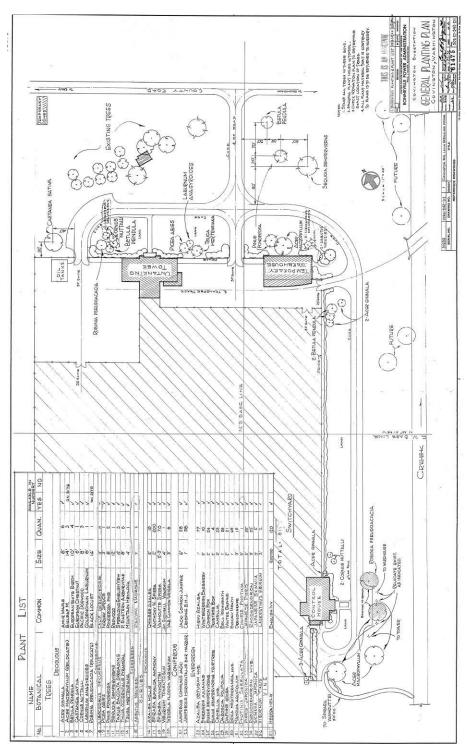




Photo 1 of 22. Public side of Untanking Tower (1942), looking southwest.



Photo 2 of 22. Non-public side of Untanking Tower (1942), looking northeast.



Photo 3 of 22. Non-public side of Untanking Tower (1942), looking east.



Photo 4 of 22. Public entry porch, Untanking Tower (1942), looking northwest.

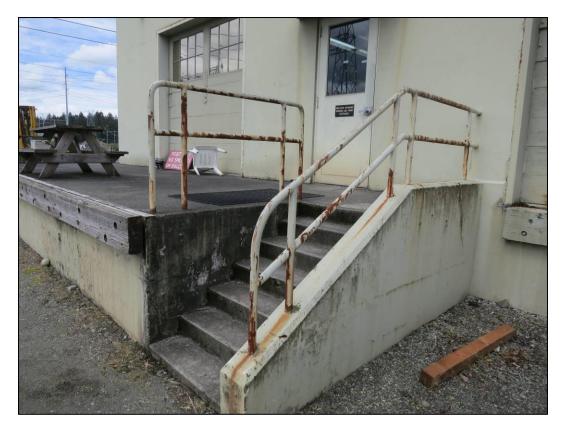


Photo 5 of 22. Loading dock of Untanking Tower (1942), southeast side, looking west.

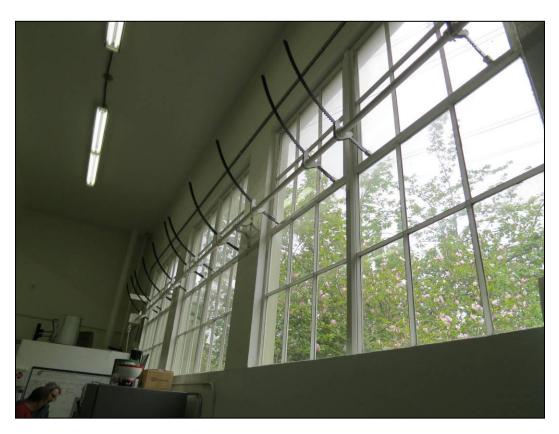


Photo 6 of 22. Window detail, workroom, Untanking Tower (1942), looking north.



Photo 7 of 22. Public side of Control Building (1942), looking northwest.



Photo 8 of 22. Switchyard side of Control Building (1942), looking southeast.

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Photo 9 of 22. Side entry detail, northeast side, Control Building (1942), looking west.



Photo 10 of 22. The Switchyard, Untanking Tower at center, looking northeast.

Covington Electrical Substation BPA King County, WA



Photo 11 of 22. Front façade, HMEM Shop (1953), looking south.



Photo 12 of 22. Rear façade, HMEM Shop (1953), looking east.

Covington Electrical Substation BPA King County, WA



Photo 13 of 22. Automotive Storage (1959), looking west.



Photo 14 of 22. Maintenance Warehouse (1959), from roof of Untanking Tower, looking north.

Covington Electrical Substation BPA King County, WA



Photo 15 of 22. Communications Building (1958), looking southeast.



Photo 16 of 22. SPC Shop (2004) and PSC & SPC Office (1996), looking south.



Photo 17 of 22. District Office Building (2008), looking east.



Photo 18 of 22. TLM Vehicle Canopy (1971), looking southwest.



Photo 19 of 22. Microwave Tower (c.1968), looking southwest.



Photo 20 of 22. Control House Flammable Storage Building (1966), looking south.



Photo 21 of 22. Engine Generator Building (1973), looking south.



Photo 22 of 22. Fueling Station (2011), looking east.