

# EWEB Steam Plant History: Visual Tour



To meet growing demands for power, in January of 1930, EWEB completed its second hydro facility on the McKenzie River. Even with this extra generation capability, the utility was still reliant on Mountain States Power to provide extra power when hydro supplies were limited in the late summer/early Fall.

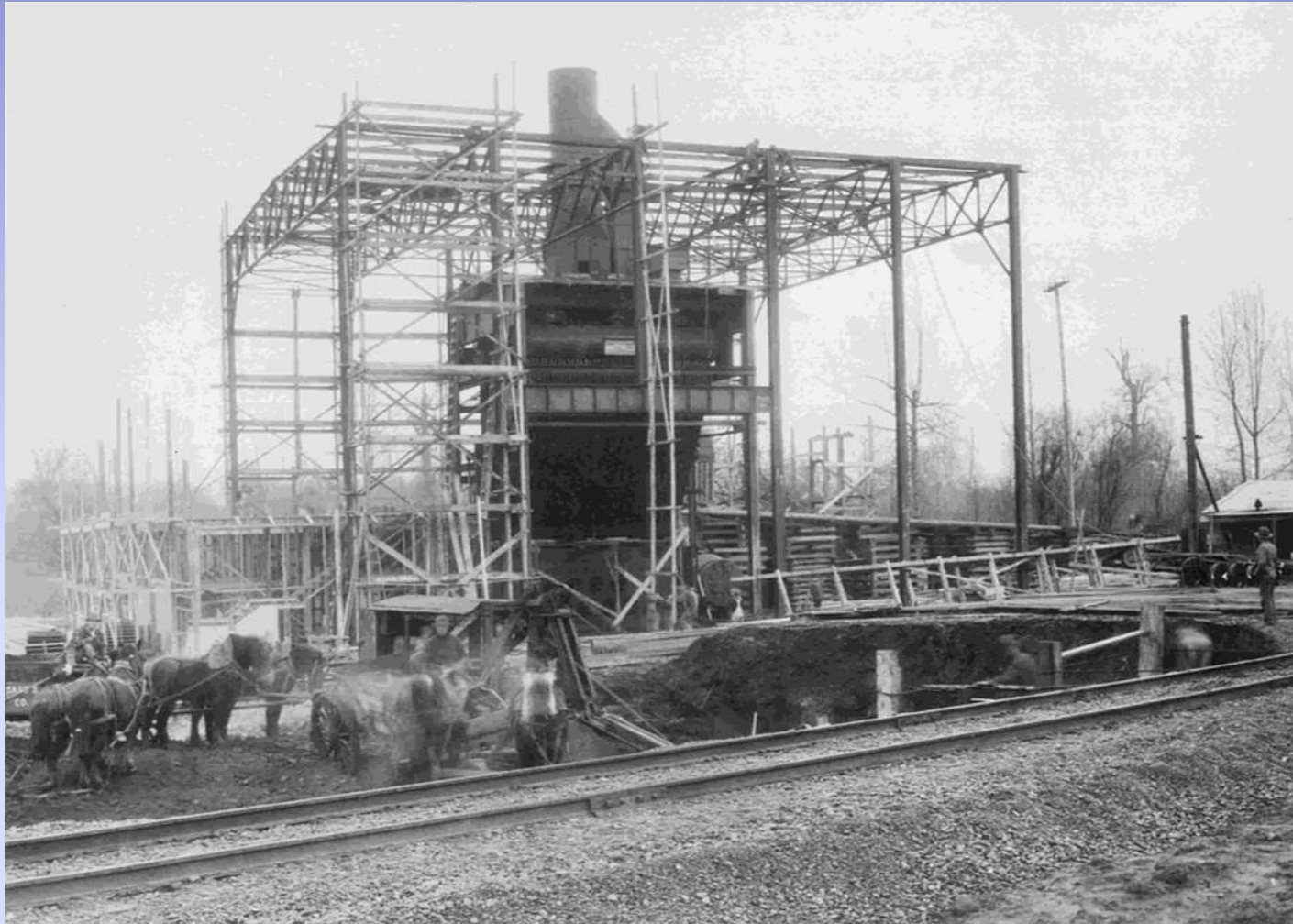
After the contract price for this extra power increased by nearly 2000%, EWEB in 1930 decided to build its own standby power plant next to the water filtration plant on the Willamette River. Here is a brief history.

## Steam Plant construction begins - December 1930



Looking West, "taken from top of settling tank," shows some boiler construction and beginning pour for turbine foundation.

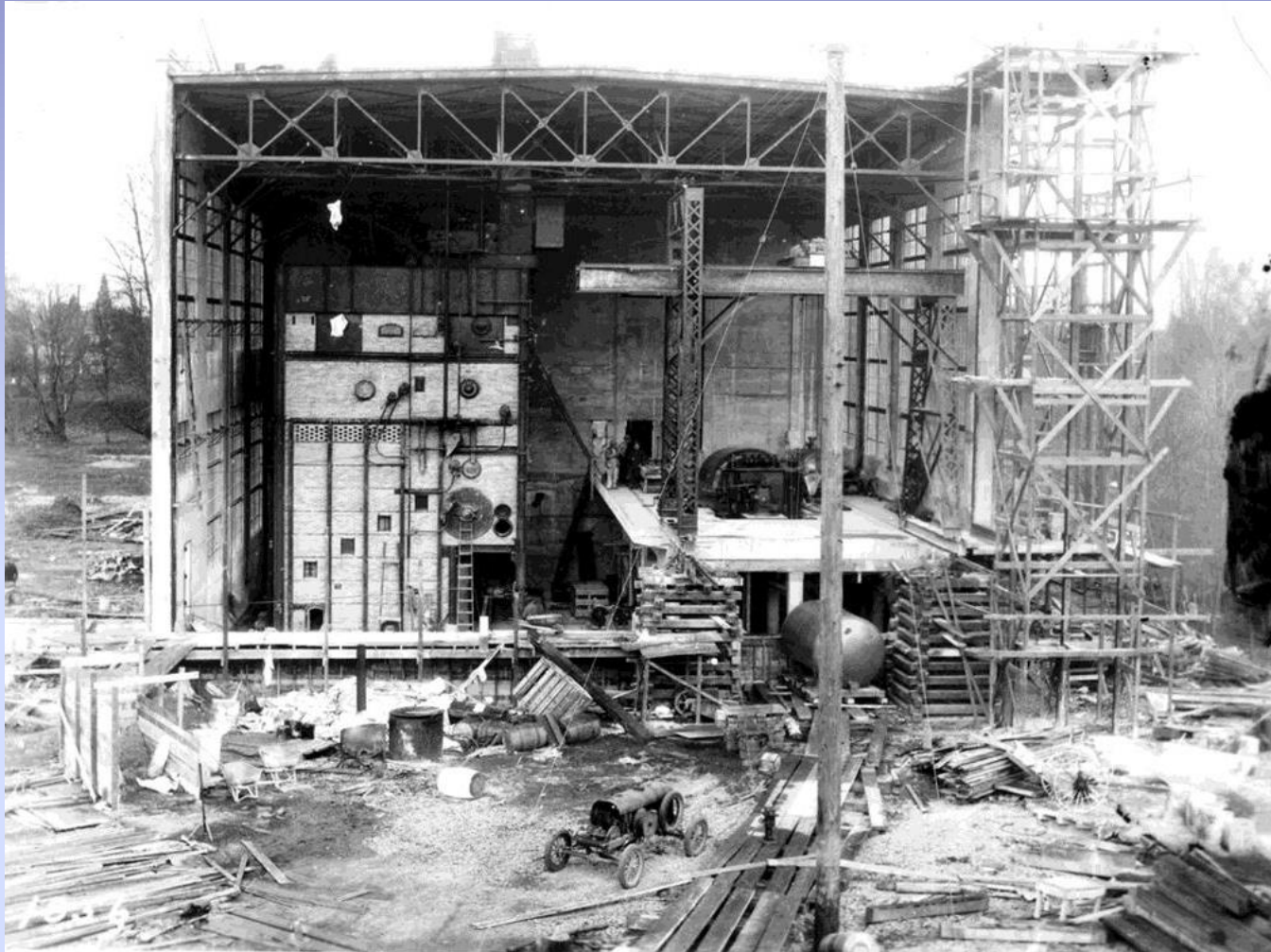
## Construction underway – January 1931



Looking NE across RR spur, showing boiler, frame & excavation pit for underground oil tank.



## Building takes form – March 1931



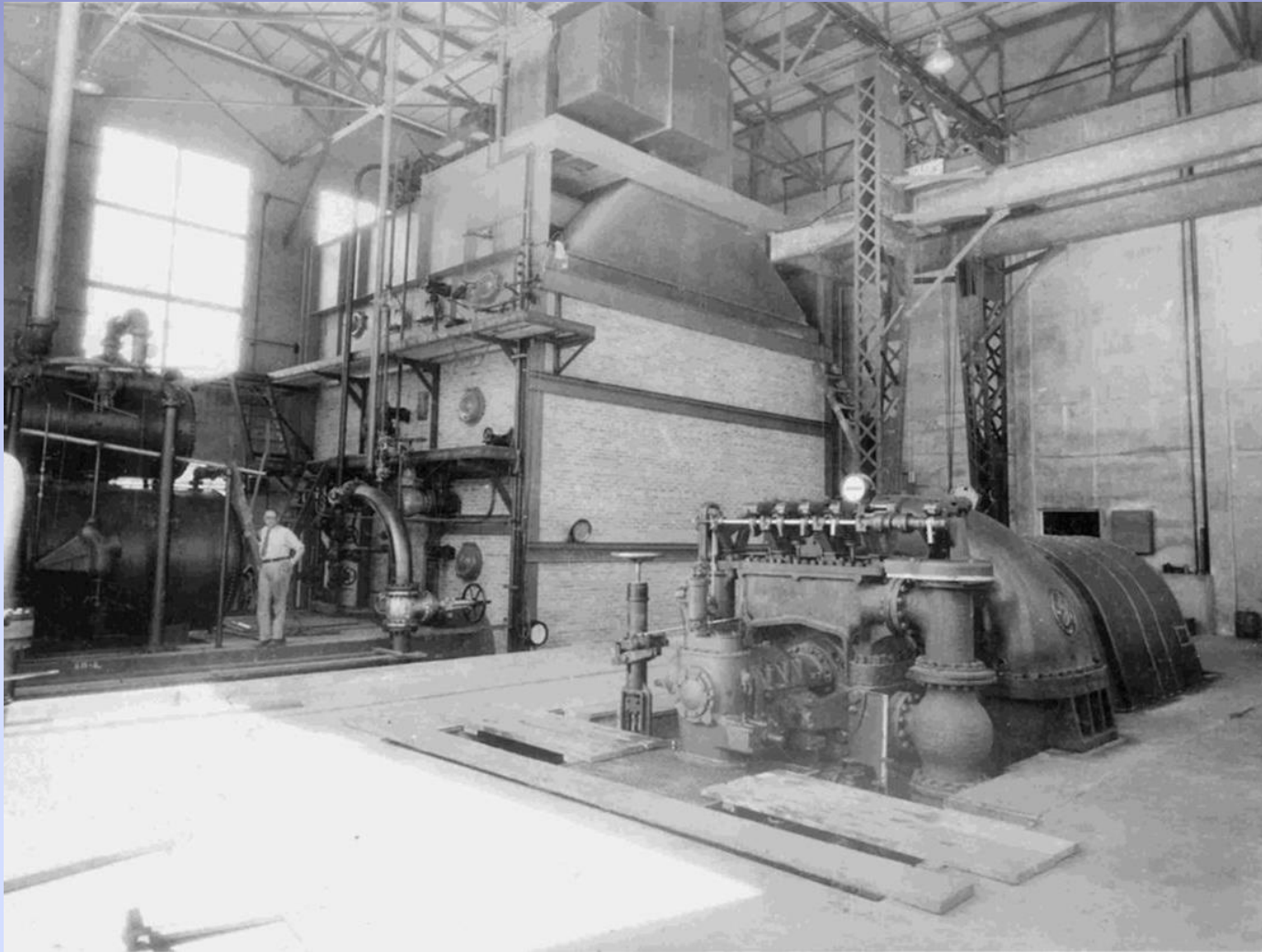
Looking west, showing boiler (left), turbine (right)  
and exterior building frame.

## Nearing Completion – June 1931



Just six months after construction began, looking NW,  
erecting large doors at eastern side of building.

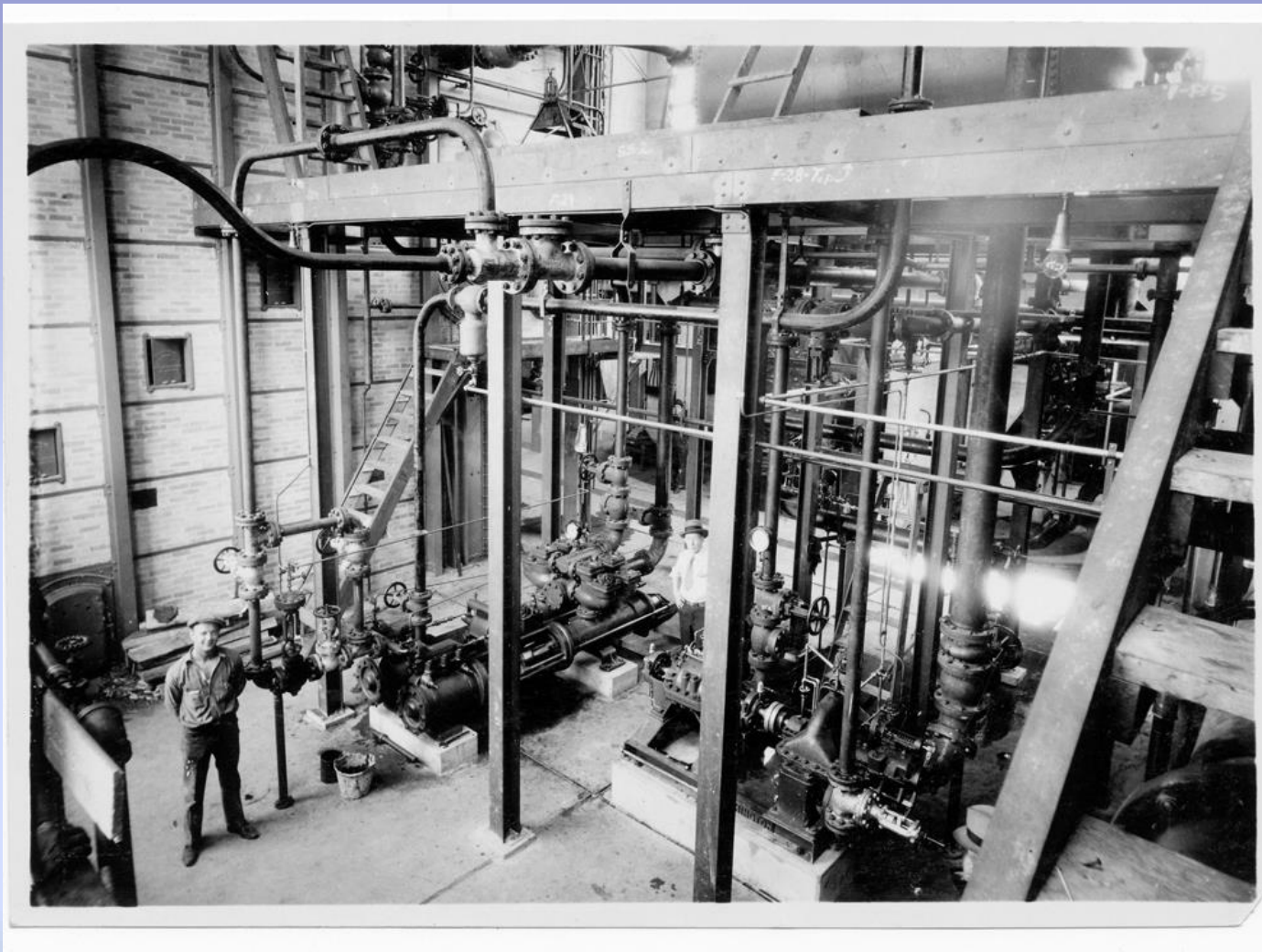
# Plant Interior – Boiler and Unit #1



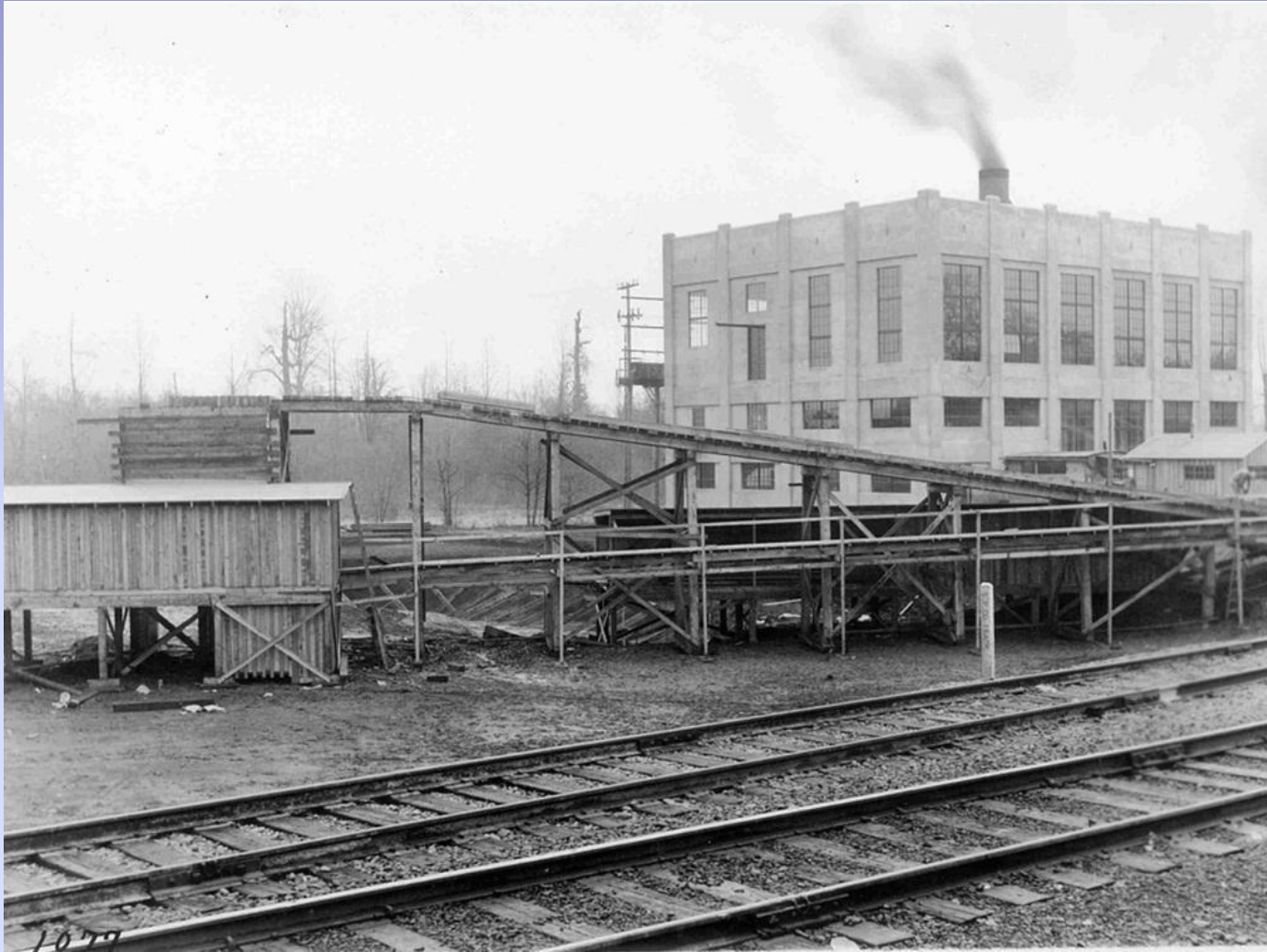
The 3-level standby steam plant with its massive brick oil boiler was completed at a total cost of \$388k.



# Lower level piping and water feed pumps - 1931



## Up and running – December 1931



Looking northeast from Fruit Growers Docks



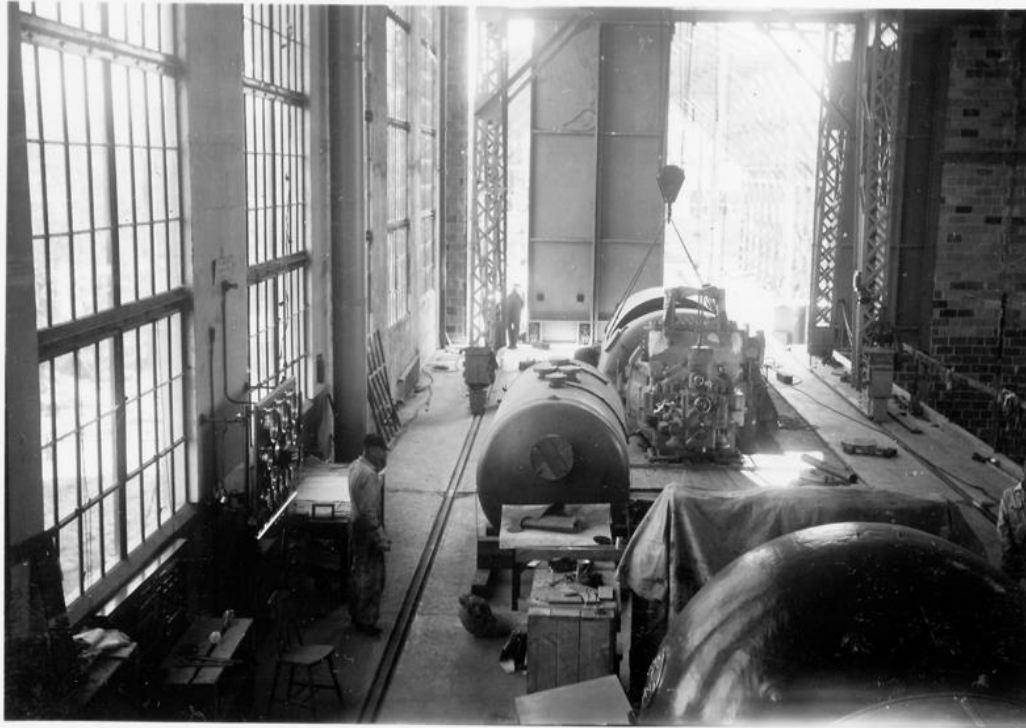
## Moving fuel car to Steam Plant



Bunker C oil was the primary boiler fuel and was stored in a massive underground tank behind the plant.

## Installing turbine unit #2, 1941

2172



A second generation unit which burned the abundant supply of hogged fuel was added. This unit was sized to allow the utility to sell surplus steam to the Eugene Fruit Growers Association and later, Central Heating Company.

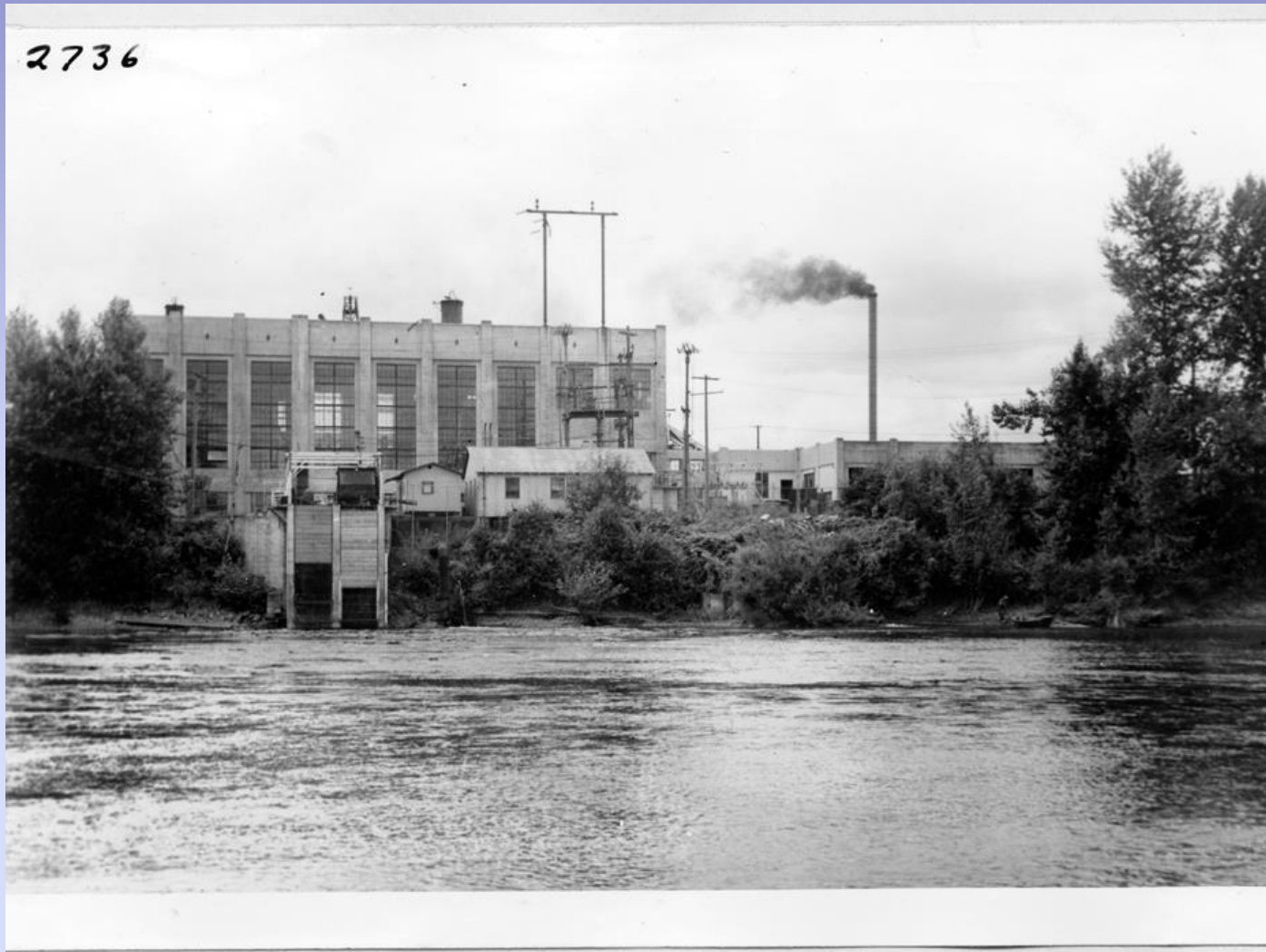


# Fuel storage and conveyers, 1941



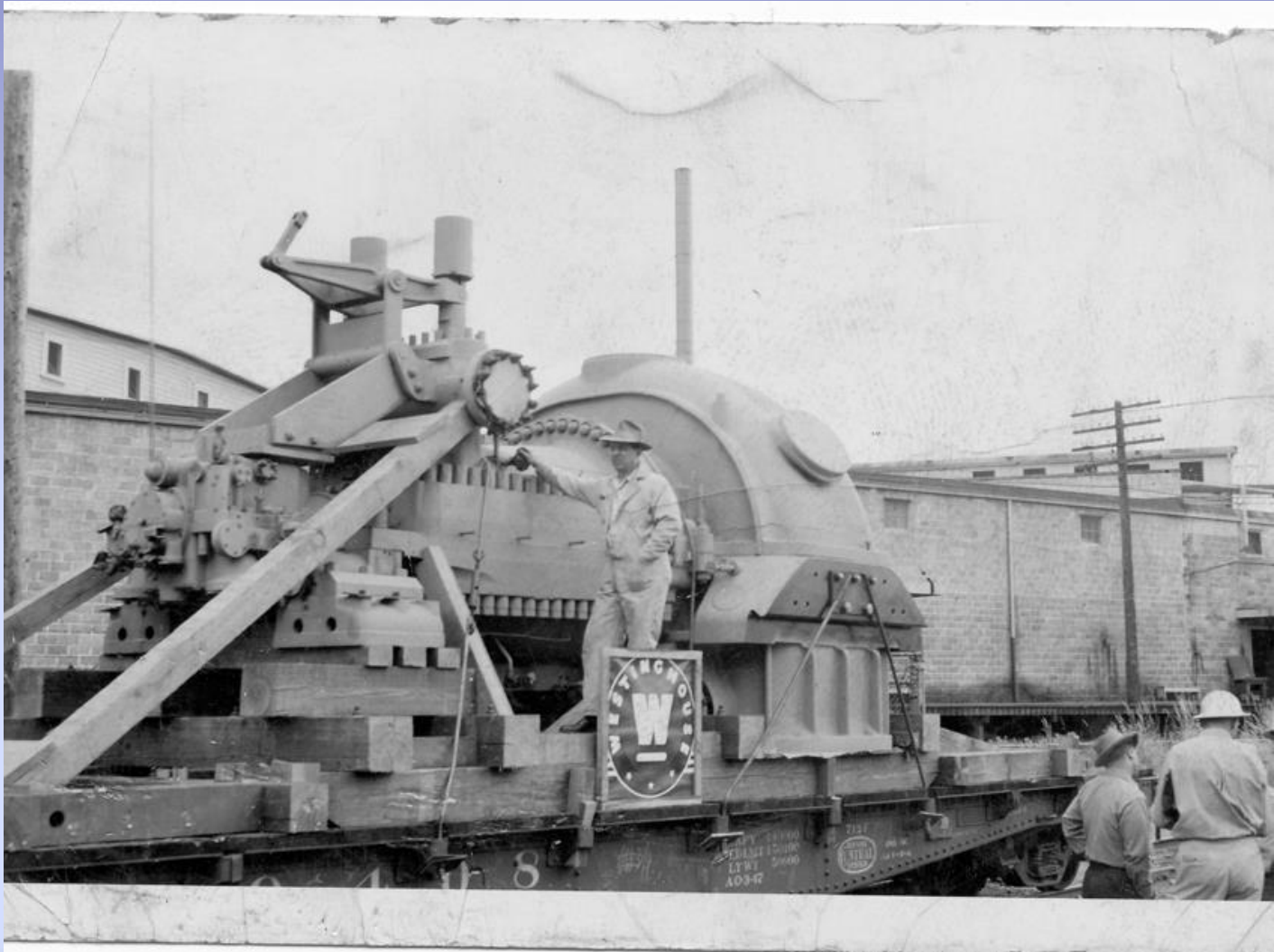


## View from across river, 1944



Central Heat, a private company established in 1925, provided steam to downtown office buildings through a complex network of underground piping it had developed over the years.

## Turbine/Generation Unit #3 arrives by railcar, June 1949



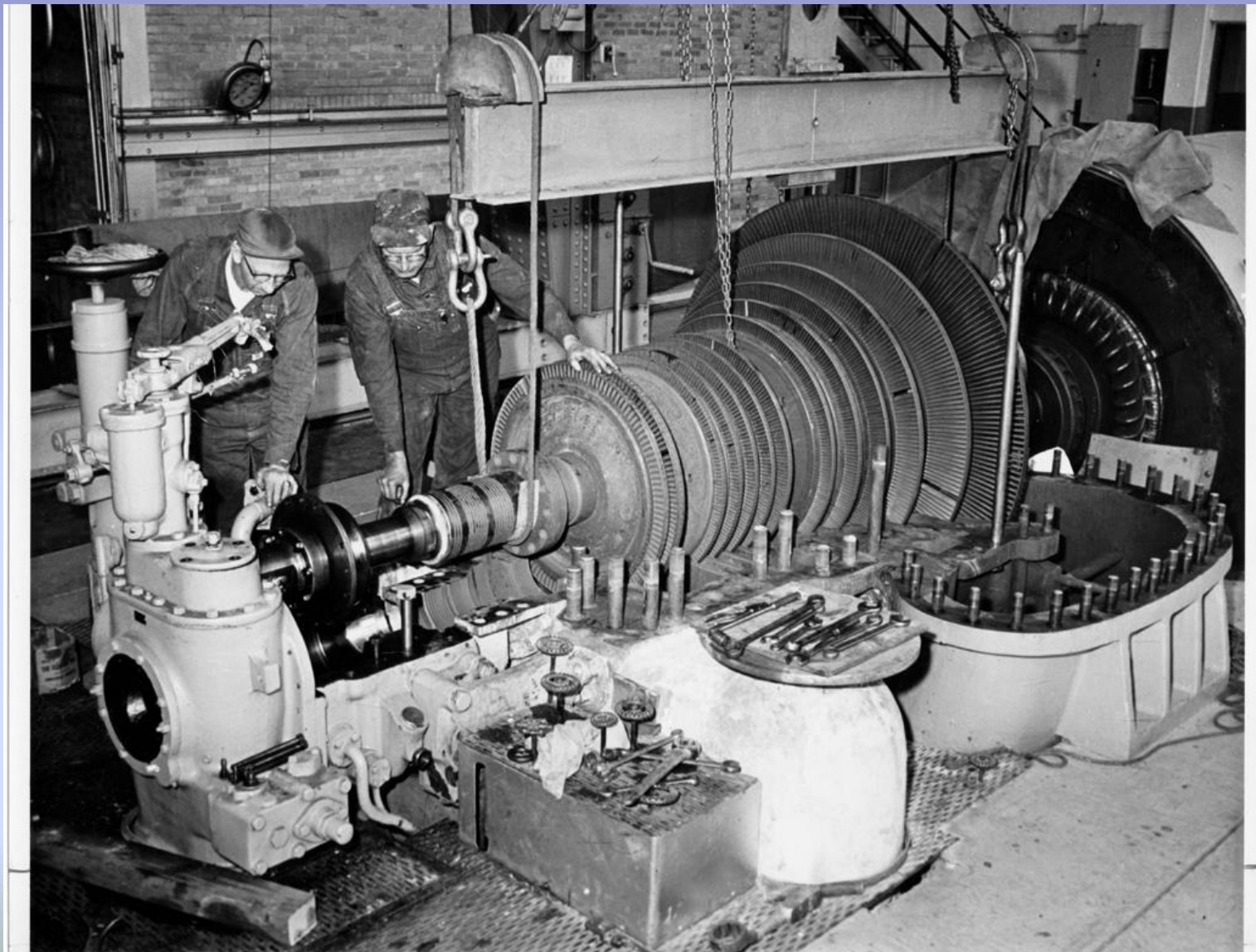
By 1950, EWEB's electric customers had doubled to nearly 20,000 customers. A plant expansion to the east allowed enough room to add a third turbine and boiler, bringing the total output of the steam plant to 25 mW.

# Steam employees, c1953





# Generator maintenance, date unknown



## Pre-heat water tanks for Unit #3 – late 1950s



## Wood chip conveyer to steam plant - c1960



Central Heating Co. facilities were aging and there was public concern about air pollution from its coal/oil burning boiler. The company was eager to sell to EWEB, and in May 1962, EWEB assumed Central Heat's assets and the ~275 downtown steam customers for \$235k.



## View from top of hogged fuel pile, c1970s



- As hydro power became more plentiful and inexpensive, EWEB stopped operating the steam plant for surplus generation in 1979, and focused on direct customer sales. At the same time, the underground network of piping inherited from Central Heating developed significant leaks. Steam escaping through manhole covers in downtown streets was a common sight.

# Contemporary interior view looking east at turbine deck



Turbine and boiler #1 in foreground.



# Original fire brick boiler door (Unit #1)





## View from Boiler #1 Catwalk



Myth busting: The symbol seen on some of the old valves is not a swastika. Canadian company Crane used it as a good luck symbol before it was hijacked by the Nazis.

## Turbine/Generator Unit #2





# View of Boiler #3





## View looking east at natural gas boiler addition at rear of plant - 2009



The steam customer base began to dwindle, down to about 125 in the mid -'80s. Even with the conversion to natural gas in the 90's, on-going fixed costs were being spread across fewer customers while losses in the distribution system increased.

# Working in steam vault @ Eugene Hotel, 2007



As steam customers continued to decline, a hard decision to decommission the plant was made. In 2008, the EWEB Board approved a transition plan to help move the remaining 75 or so downtown customers to more efficient heating options.



# Holiday greeting card from steam plant employees



Featuring Pound, the steam plant cat.



## Decommissioning underway: cutting service lines to downtown customers



The steam transition project resulted in cost savings of 40-60% to customers; a rapid ROI for building owners, greater comfort for occupants, and valuable upgrades to the downtown building inventory.



# Environmental remediation begins



EWEB's last remaining steam customers, PeaceHealth and City Hall, disconnected from the system and at 6 am on June 29<sup>th</sup>, 2012 EWEB ceased steam operations. Bunker C oil tank remediation began soon after.



## Asbestos remediation and demolition of Boilers #2 and #3 followed



Asbestos removal was an expensive, but critical step, to give the steam plant the best chance at a second life, repurposed as envisioned in the master plan.



# Interior view from upper level after boilers #2 & #3 are removed (2014)



# Preserving Historical Artifacts



All three turbines and the original fire brick boiler still remain. Many industrial artifacts have been retained for future re-use on-site; smaller pieces of historic significance have been transferred to the EWEB museum for display and safekeeping.



# With appreciation



Thank you so much for the dedicated service, specialized expertise, and quality workmanship our steam plant employees provided over the years. Special recognition goes to Will Bondioli, one of the few people who understand how steam plants operate. He skillfully managed the customer transition process, oversaw the plant's decommissioning, and after 30 years of service to EWEB, retired last week. We'll miss you Will!



The steam plant not only captures EWEB's past but also our imagination of how it can be part of our future and the redevelopment of the riverfront. *(Image courtesy of Dylan Woock).*