## Continuous Production in British Columbia Shipyards During the Second World War

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Les efforts effectués par le gouvernement fédéral afin de forcer la production continue dans les chantiers navals de la Colombie-Britannique pendant la Seconde guerre mondiale minaient les relations entre l'Etat, l'industrie et les ouvriers. Les revendications des syndicats afin d'obtenir des heures et conditions de travail semblables à celles prévalant sur la côte ouest des Etats-Unis ainsi que l'introduction par le Ministère du travail d'une législation à caractère punitifont contribué à créer un climat de désaccord qui a éventuellement suscité la création d'une commission royale d'enquête. La production continue n'a ainsi jamais rempli ses promesses de maximiser la production de bateaux.

Shipbuilding, as a viable industry and form of major employment in Canada, customarily performed best during wartime. Substantial public funds on government account, national defence demands, and contribution to the larger Allied war effort transformed a small, struggling industrial sector into a volume producer within a relatively short period of time. Overall numbers, however, obscure the remarkably narrow window, in which the federal

<sup>&#</sup>x27; Funds from the Social Sciences and Humanities Research Council of Canada and the Department of National Defence supported research for this article.

<sup>&</sup>lt;sup>2</sup> Nicholas Tracy, Canadian Shipbuilding and Shipping Business: The State of Scholarship, Canadian Marine Transportation Centre and Dalhousie Ocean Studies Programme Research Report No. 11 (Halifax: Dalhousie University, nd), 28. Recent books uncritically accept the myth that Canada performed a shipbuilding miracle and possessed the third largest navy at war's end. Robert G. Halford, The Unknown Navy: Canada's World War II Merchant Navy (St. Catherines, Ont: Vanwell, 1995), Chapter 11. S.C. Heal, A Great Fleet of Ships: The Canadian Forts and Parks (St. Catherines, Ont: Vanwell, 1999). W.A.B. Douglas, Roger Sarty, and Michael Whitby, No Higher Purpose: The Official Operational History of the Royal Canadian Navy in the Second World War, 1939-1943 Volume 2 Part 1 (St. Catherine's, Ont: Vanwell, 2002).

government showed active interest in major shipbuilding. Shipbuilding became a leading wartime industrial employer, rising from just over 4,000 workers nationally in September 1939 to a peak of 89,043 in September 1943. Companies, both the limited number which had survived on ship repairs and government dry dock subsidies during the two decades prior and newly opened private commercial and government-run wartime emergency shipyards, expanded facilities, operations, and work forces necessary for mass production. British Columbia surpassed other provinces in total value of contracts and numbers employed, with twenty-three large and small firms engaged in shipbuilding. Shipyards were primarily concentrated in the population centres of Vancouver and Victoria, and to a lesser extent Prince Rupert.

Availability and proper management of labour was a significant constraint on wartime expansion of the shipbuilding industry for quantity production. Building of steel ships required large numbers of skilled workers. Relations between shippard companies and groups representing organized workers, predominantly unions in the shipbuilding and related metal trades, disclosed patterns of continuity from pre-war arrangements as well as important changes under war conditions. By virtue of numbers, shippard labour reemerged as an organized and potent force on the British Columbia industrial scene. Vancouver's 1918 shippard strikes for higher wages and resulting legal inquiries followed by neglect of national policy toward shipbuilding in the intervening years were still remembered. When simple appeals to patriotism gave way to government compulsion and coercive policies, numerous points of tension and confrontation developed between state, private enterprise, and labour in British Columbia's wartime shipbuilding industry. Continuous production, a federal government plan to work west coast shipyards seven days a week, twenty four hours a day on three shifts, evoked controversy, disharmony, and ultimately a royal commission to inquire into production and labour problems.

Continuous production in British Columbia shipyards was troubled and delayed because determined federal officials tried implementation without adequate consultation or buy-in. The government's arbitrary, inconsistent, and confrontational approach failed to

<sup>&</sup>lt;sup>3</sup> Memorandum for Minister of Labour "National Selective Service: Shipbuilding," March 1944, National Archives of Canada, Ottawa (hereafter NAC), RG 27 Vol. 618 File 4.

Dominion Bureau of Statistics, *Annual Industry Report: The Shipbuilding Industry*, 1943 (Ottawa: Department of Trade and Commerce, Dominion Bureau of Statistics, 1944). In general, see G.W. Taylor, *Shipyards of British Columbia: The Principal Companies* (Victoria: Morriss Publishing, 1986); George N. Edwards, *Waterfront to Warfront: Burrard Dry Dock Company During World War*//(North Vancouver: North Vancouver Museum and Archives, 1995); T.A. McLaren and Vickie Jensen, *Ships of Steel: A British Columbia Shipbuilder's Story* (Madeira Park, B.C., Harbour Publishing, 2000); Francis Mansbridge, *Launching History: The Saga of Burrard Dry Dock* (Madeira Park, B.C.; Harbour Publishing, 2002).

<sup>&</sup>lt;sup>5</sup> Jan Drent, "Labour and the Unions in a Wartime Essential Industry: Shipyard Workers in BC, 1939-1945," *The Northern Mariner* 6(October 1996), 56-58. Carole Paula Thornton, "Women of the Victoria Shipyards 1942-1945: An Oral History," MA thesis (University of Victoria, 1998), Chapter 3.

<sup>&</sup>lt;sup>6</sup> James Robert Conley, "Class Conflict and Collective Action in the Working Class of Vancouver, British Columbia, 1900-1919," PhD dissertation (Carleton University, 1986), 374-400. *The Coughlan Shipyard Dispute: Final Report of the Royal Commission Appointed to Enquire into the Differences*, 24 July 1919.

satisfy reasonable wage and other demands from workers familiar with conditions in American shipyards along the Pacific coast. Unlike negotiated zonal shipbuilding wage stabilization in the United States, preparatory groundwork was cursory, and continuous production was forced onto companies and workers alike for the sake of immediate results demanded from other government agencies working behind the scenes. Federal officials insisted continuous production go into effect, some shipyard management openly questioned its worth, and unions perceived a challenge to hard-won rights in existing collective agreements. Government inconsistency, parsimony, and coercion introduced division and confusion when co-operation and efficiency were required for the sake of maximum production in wartime shipbuilding. Collusion between government departments against labour was marked, both before and after a royal commission convened under a judge from another province to examine and make recommendations upon the situation in British Columbia's shipyards. Prolonged consultations restored a measure of cooperation, but continuous production only operated fully for a matter of months before being abandoned when merchant ship demand slackened. Continuous production in shipbuilding was attempted nowhere else in Canada during the war.

Wage rates and hours of work in British Columbia shipyards were relatively stable before the federal government's attempted introduction of continuous production. Immediately prior to the war, hourly pay at Burrard Dry Dock Company in North Vancouver, for example, ranged across various trades and classifications from a dollar for leading mechanics downward to 45 cents for less skilled apprentices and helpers. These rates were typically higher than those in comparable eastern Canadian shipyards, where unions were less organized to push collective bargaining rights and the overall pool of skilled workers was significantly larger. A single shift on weekdays, comprising an eight hour day and forty-four hour work week, was the pre-war norm. Workers received premiums for working second and third shifts and overtime at time and half for the first four hours and double time subsequent hours over and on Sundays and statutory holidays. Although individual unions still negotiated basic agreements covering their respective trades and members directly with companies, organized labour in the shipyards increasingly worked together within the framework set by the federal government. War contracts for minesweepers and corvettes in the 1940/41 naval shipbuilding program contained annexes setting out wages and conditions of work, which generally conformed to those pertaining in a given area or region subject to revision upon application to government authorities. In May 1940, a board of conciliation between Burrard Dry Dock and locals of three shipyard unions revised hourly rates upwards and made the ruling applicable for the war's duration,

<sup>&</sup>lt;sup>7</sup> Burrard Dry Dock Company Limited, "Rates of Pay in Effect-January 17<sup>a</sup>, 1939," North Matthew T. Davie fonds, North Vancouver Museum and Archives, Vancouver (hereafter NVMA), Fonds 105 File 1C.

<sup>&</sup>lt;sup>1</sup> Memorandum W.H. Milne "Shipbuilding in Canada," 31 May 1939, Harold Milne papers, NAC, MG 30B121 Vol. 1 File 1-3.

subject to cost of living reviews every three months. Organized workers from the same and different unions in other Victoria and Vancouver shipyards pressed for comparable pay increases. Wage rates paid at Burrard thereafter became standard throughout British Columbia on all government shipbuilding contracts. Shifts were gradually extended to two with the addition of evenings, as experienced mechanics returned to shipbuilding from other industries and new semi-skilled and unskilled workers, including women, were trained to minimal standards.

The relative success of working an increased number of hours varied from shipyard to shipyard and available labour supply in the general locales. Prince Rupert Dry Dock was chronically short of skilled labour and barely filled out one shift, while Yarrows and Victoria Machinery Depot on Vancouver Island were hard-pressed to go beyond two shifts. Vancouver shipyards, though competing with the aircraft and construction industries for skilled workers, used dilution and breaking down of the production process to facilitate more workers on more shifts. While North Van Ship Repairs at Lonsdale and Burrard Dry Dock (South) at Coal Harbour signed union agreements, West Coast Shipbuilders Limited, a company formed by a group of financiers associated with steel-fabricator Hamilton Bridge, resisted attempts at union organization at its False Creek yard. The company out-sourced most ship components, used cheaper, lesser skilled workers for assembly, and showed general antipathy toward organized labour, whether traditional craft or newer industrial. Since labour rights and formal union recognition were more advanced in British Columbia than eastern Canada, union leaders strove to protect existing agreements and wages. Changes in the shipyards along a West Coast Shipbuilders model proposed during a Vancouver visit by H.B. Chase, director general of labour relations in the Department of Munitions and Supply, drew condemnation from unions fearful of losing hard-won concessions. When North Van Ship Repairs and Burrard Dry Dock suggested in December 1941 the basic agreement being set aside in favour of changes in working hours and pay to facilitate continuous production, the unions from the earlier conciliation board unanimously turned down the request and jointly wrote the federal government asking "the shipyards be requested to live up to the letter of the signed agreements with all unions."" The term "duration of the war" used by the conciliation board obviously connoted different meanings:

<sup>&</sup>quot;Copy of Report of Board Conciliation and Investigation established under the Industrial Disputes Investigation Act, 1907, in a matter of the Industrial Disputes Investigation Act, and in the matter of a dispute between the Burrard Dry Dock Company, Limited and the following classes of its employees: machinists, fitters, specialists and helpers, members of Vancouver Lodge No. 692, International Association of Machinists; pipe-fitters, plumbers, helpers, members of Local Union No. 170, United Association of Journeymen Plumbers and Steam Fitters of the United States and Canada; sheet metal workers, members of Local No. 280, Sheet Metal Workers' International Association," 9 May 1940, NVMA, Versatile Pacific fonds, Fonds 27 Series 109 Box 554 File "Union Information 1939-1949."

<sup>&</sup>quot;Revised Schedule of Wage Rates - Shipbuilding Industry Pacific Coast - British Columbia, as of 1 September 1940," 10 September 1940, NAC, RG 27 Reel T-10092 Vol. 87 File 423.2:5.

<sup>&</sup>quot; Minutes Emergency Meeting, 14 December 1941, City of Vancouver Archives, Vancouver (hereafter CVA), United Sheet Metal Workers International Association Local 280 fonds, Add. Mss. 251 Box 2 Vol. 8 Book 10.

unions considered the basic agreements legally binding, companies felt compelled to increase efficiency and numbers in production without disturbing industrial harmony, and government procurement authorities perceived existing arrangements as inconvenient.

The production demands of expanded cargo vessel construction influenced the Department of Munitions and Supply under munitions czar Clarence Howe and Wartime Merchant Shipping Limited, a crown company run by British Columbia lumber baron Harvey MacMillan and headquartered in Montreal, to move toward continuous production. A visiting British Merchant Shipbuilding Mission previously reported that British Columbia shipyards possessed some capacity amenable to merchant shipbuilding.<sup>12</sup> The competitive disadvantage of higher labour and transportation costs on the west coast and the federal government's inclination toward Quebec and Ontario shipyards for political reasons, however, meant the province's shipyards were initially overlooked. Alderman Halford Wilson, chairman of a special committee formed by Vancouver mayor J. W. Cornett to chase down further wartime contracts, scribbled that Howe "looks at BC through the telescope made & handed to him by the industrialists of Eastern Canada" and he viewed the first merchant vessel contract awarded Burrard Dry Dock as "a hand out of small dimensions to avoid criticism of ignoring [the] West Coast."13 Whether the comment was fair or not, the scope of the merchant shipbuilding program launched by Howe and pushed forward by MacMillan during 1941 soon put unprecedented demands on all shipyards and brought more business across the country, specifically to British Columbia. Amos Ayre, the Admiralty's director general of merchant shipbuilding, hoped that Canada could produce 500,000 gross tons per year, in addition to whatever ships built under the Hyde Park Agreement.14 To achieve and exceed this target, Wartime Merchant Shipping embarked on rapid expansion of shipbuilding industrial potential, greater coordination of available material and labour resources, and active consideration of alternative production methods such as continuous production.

The immediate roots of continuous production in British Columbia shipyards derived from Wartime Merchant Shipping's attempts to introduce changes in production technique and labour practices. An experiment at Burrard Dry Dock's north yard in January 1942 found that a three person gang drove 425 rivets in eight hours under piecework as opposed to 228 rivets in the same time under normal rates. Under piecework, workers were paid according to set standards of performance rather than on a time basis, thereby giving incentives for increased work output and production. Although the results clearly indicated

R. Cyril Thompson, "Report on Shipbuilding in U.S. A," The National Archives, Kew (hereafter TNA), ADM 116/4990. Lewis Johnman and Hugh Murphy, "The British Merchant Shipping Mission in the United States and British Merchant Shipbuilding in the Second World War," *The Northern Mariner* 12(July 2002), 4-5.

<sup>&</sup>quot;Report of the Sub-Committee of the Special Committee re War Contracts," 30 January 1941, CVA, Halford David Wilson papers, Add. Mss. 362 Vol. 42 File 8.

<sup>&</sup>lt;sup>14</sup> Interviews "Shipping," 11 November 1941, Archives of Ontario, Toronto (hereafter AO), Floyd S. Chalmers papers, F4153-2-2-122.

<sup>&</sup>lt;sup>15</sup> Notebook entry "Rivetting - Burrard Dry Dock Co. Ltd. Vancouver January 1942," NVMA, Doug Kinvig papers, fonds 97, Box 1 File 3.

better production, union members were hardly enthusiastic about the suggested changes. If tasks could be broken down and performed by lower paid workers, the need for skilled mechanics with their protracted apprenticeships would be diminished and thus the power of organized labour lessened. In late February 1942, G.K. Sheils, Howe's deputy minister, and Henry Borden, general counsel in the Department of Munitions and Supply, visited Vancouver shipyards and consulted with Austin Taylor, MacMillan's representative at Wartime Merchant Shipping's local office, about new production methods. Continuous production was a direct offshoot of piecework proposals.

Despite discouraging responses to Canadian queries in the United Kingdom about continuous production, Wartime Merchant Shipping embarked on an even more ambitious merchant ship construction program. Ayre wired that a system of seven day operation had been tried in British shipyards, but abandoned because of accumulated fatigue among workers, whereupon existing arrangements between employers and unions for payment of overtime above regular hours and time off on Sundays and holidays were preserved." Notwithstanding the obvious lessons from the British example for the Canadian shipbuilding industry which suffered similar limitations in labour supply and underdevelopment, Wartime Merchant Shipping proceeded with plans to launch almost three hundred merchant ships in the next two years. MacMillan forecasted a 50 per cent increase from the fall of 1942 and set a goal of 1.25 million gross tonnes in merchant ships, an amount equivalent to the entire United Kingdom output. To meet these production objectives, Wartime Merchant Shipping looked toward Humphrey Mitchell, minister of the Department of Labour, to get the unions on side quickly.

Any expectation that Mitchell could count on organized labour's support of continuous production stalled on miscommunication and differences over details. Wartime Merchant Shipping asked the Department of Labour to send a team of experts to investigate piecework rates for rivetting and suggest "to the Minister such rearrangement of the hours of work as they would think best calculated to secure maximum production." J.A. McClelland, a member of the new National War Labour Board somewhat knowledgeable in the field, visited Vancouver and came up with a definite plan of continuous production based upon a forty-eight hour and six day work week with three shifts per day. The plan reflected mostly the desires of Wartime Merchant Shipping because McClelland consulted closely with Taylor and hardly bothered to solicit views from employers and workers. Instead, Mitchell presented McClelland's continuous production plan as a complete package during a meeting with company and union representatives on 16 March 1942, and asked for voluntary concurrence to the plan prior to another conference on 1 April, a mere two weeks

Letter, G.K. Sheils to James Eckman, 12 March 1942, NAC, RG 28 Vol. 77 File 1-1-162.

Message, Amos Ayre to R.R. Powell, 26 2156A February 1942, TNA, CAB 115/474.

<sup>&</sup>lt;sup>18</sup> Memorandum, "H.R. MacMillan, Chairman, Wartime Merchant Shipping Ltd.," 5 February 1942, AO, Chalmers papers, F4153-2-0-89.

<sup>&</sup>lt;sup>19</sup> Memorandum, Bryce Stewart to Humphrey Mitchell, 5 March 1942, NAC, RG27 Reel T-10092 Vol. 88 File 423.2:10 pt. 1.

away.<sup>20</sup> Mitchell, himself experienced with trade unions in Ontario, likely believed that his own personal suasion would be sufficient to get labour behind continuous production.

However, the labour minister's credibility was undermined when North Van Ship Repairs and Burrard Dry Dock posted notices on 20 March stating that the proposed continuous production plan was to go into effect immediately on Mitchell's direct instructions and prior to further consultation. The plumbers local 170 sent a telegram to Mackenzie King protesting Mitchell's "unwarranted and arbitrary" action in ordering labour onto a seven day basis in Vancouver shipyards. Although Mitchell claimed to know nothing about such instructions, the notices resembled in wording a Wartime Merchant Shipping memorandum sent to the companies. F.E. Harrison, the Department of Labour's western representative, downplayed the incident and assured Mitchell that the unions would likely accept the labour minister's personal request "after what I consider your most successful visit to this area in an endeavour to adjust the labour problems facing the shipbuilding industry."22 The optimistic view given Mitchell was somewhat misleading because the unions were now suspicious of collusion between labour officials and Wartime Merchant Shipping and also held the view that the plan was still open to further negotiation, particularly on issues of hours and pay. Union delegates, at a 25 March conference, noted that continuous production, notably in the United States, was done without setting aside existing agreements.<sup>23</sup> The terms offered by Mitchell were inferior in comparison. At a 28 March meeting, shipbuilders told Taylor and Arthur Hills, Canadian National Railway's chief of personnel sent to Vancouver by Mitchell to look into shipyard wages, that workers in the North Vancouver yards refused 50 hours weekly pay for the second and third shifts as proposed in McClelland's plan, in favour of 56 hours paid for 45 and 42 hours worked respectively. 24 Clarence Wallace from Burrard Dry Dock and J.W. Thompson from North Van Ship Repairs told Harrison in the presence of union representatives on several occasions that the two companies found demands from labour reasonable and in line with provisions of existing agreements. Mitchell's 1 April deadline passed without broad agreement on continuous production.

Despite apparent concurrence between some shipbuilders and workers over additional pay, the Department of Labour insisted on the hours in the original plan and

Minutes Regular Meeting, 18 March 1942, CVA, Vancouver Metal Trades Council fonds, Add. Mss. 558 Vol. 2.

<sup>&</sup>lt;sup>21</sup> Telegram, Frank Carlisle to William Lyon Mackenzie King, 20 March 1942, NAC, RG 27 Reel T-10092 Vol. 88 File 423.2:10 pt. 1.

<sup>&</sup>lt;sup>22</sup> Telegram, F.E. Harrison to Humphrey Mitchell, 21 March 1942, NAC, RG 27 Reel T-10092 Vol. 88 File 423.2:10 pt. 1.

<sup>&</sup>quot;Minutes of Conference of all Shipyard Union Delegates held in Victory Hall, Vancouver at 8 p.m. Wednesday, March 25\*, 1942," NAC, Trades and Labor Congress of Canada fonds, MG 28 1103 Vol. 236 File 14.

Telegram, F.E. Harrison to Humphrey Mitchell, 28 March 1942, NAC, RG 27 Reel T-10092 Vol. 88 File 423.2:10 pt. 1; Letter, Canadian Manufacturing Association Ottawa to Hugh Dalton, 13 March 1942, NAC, Arthur J. Hills papers, MG 31 E12 Vol. 5 File "National Labour Supply Council 1940-1945."

rebuffed suggested alternatives. At Mitchell's request, Ian Mackenzie, British Columbia's spokesman in the federal Liberal cabinet, talked with union leaders in Vancouver, but he reported that the plan's adoption as proposed was unlikely without some compromise toward 56 hours or perhaps one day off in six instead of seven. Harrison, after consulting with Ottawa, turned down flatly a five working day plan and remained adamant on 50 hours. Local labour leaders hinted at the possibility of trouble if the continuous production plan was pressed. Percy Bengough, vice president of the Trades and Labour Congress of Canada, personally believed that most members in American Federation of Labor (AFL) affiliated international unions would accept the plan with slight alterations. Alex McAuslane, vice president of the Canadian Congress of Labour (CCL), complained in the press that Wartime Merchant Shipping and the shipbuilding companies were trying to rush continuous production before negotiations finished with the boilermaker and other Canadian industrial unions.

On 4 April, MacMillan arrived in Vancouver to find the shipyards following routine hours over the weekend. He telegraphed Mitchell: "I firmly believe that if your policy is made mandatory it will be adopted quickly." To add weight to his argument, MacMillan insinuated that tardiness in implementing continuous production might adversely affect priorities for steel imported from the United States for Canadian shipbuilding because American shipyards were moving toward continuous production. Although shipbuilding received a large allotment of steel produced in Canada, the United States was still the primary source of supply. G.K. Sheils added further pressure onto the Department of Labour:

This Department [of Munitions and Supply] is becoming very seriously concerned regarding this matter. We feel that if the arrangement made by the Minister of Labour during his visit to the West Coast is not carried out in full without further delay the repercussions, not only in Canada but in the United States, will be very detrimental to the war effort. The point brought out in Mr. MacMillan's telegram with respect to the necessity of our procuring large quantities of steel from the United States is one the importance of which cannot be over-emphasized. The allocation of the short supply of ship steel on this continent is being made strictly on the basis of it going to the shipyards where it will be turned into ships in the shortest time. If hours of work in Canadian shipyards are such that we cannot hold up our end in this comparison we will not get the steel we need

<sup>&</sup>lt;sup>25</sup> Letter, F.E. Harrison to Humphrey Mitchell, 4 April 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 2.

<sup>&</sup>lt;sup>58</sup> Telegram, H.R. MacMillan to Humphrey Mitchell, 4 April 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 2.

and the vital shipbuilding programme will break down.

Mitchell was caught in the middle between procurement authorities pressing for adoption of the McClelland plan outright, by order-in-council if necessary, and labour unions who still considered the terms guiding continuous production subject to discussion. A flyer distributed by the Joint Conference of Shipyard Unions, a central organization representing the Vancouver unions, informed shipyard workers that labour fully supported the intent of continuous production, but categorically stated that the plan "as presented represents a considerable sacrifice from our present working arrangements." Proposals for five working days instead of six, overtime on Sundays and hours worked over the standard eight hour shift, as well as a commitment in regard to guaranteed employment for the duration of continuous production were still on the table as far as organized labour was concerned.

Although Harrison alternatively cajoled and threatened representatives from nine locals into acceptance over the next week, the Department of Labour could not achieve full support from all unions. On 15 April, machinists lodge 692 passed a resolution, which rejected the plan accepted by the other unions, instead asking for US Pacific coast shipyard hours and conditions at prevailing Vancouver shipyard rates. Despite notices posted in shipyards that continuous production was effective from 20 April onwards, the AFL-affiliated machinists continued to show up for work on hours set out in their existing basic agreement. CCL-affiliated machinists in Victoria shipyards, however, followed the continuous production plan on the basis of supplementary agreements signed with Yarrows and Victoria Machinery Depot. By 2 May, all unions in Vancouver, except the machinists and the blacksmiths, signed supplementary agreements with the shipbuilding companies to bring the plan into effect. Mitchell began drafting the order-in-council suggested by MacMillan and Sheils, whilst the hold-out machinists favoured continuous production more along American lines.

Handling of negotiations surrounding shipyard labour in general and the details of continuous production in the United States, of which the international unions were fully familiar, contrasted sharply with Mitchell's panicked ultimatum approach in Canada. The AFL predominantly represented organized workers in shipyards along the Pacific coast, and a strong north-south orientation existed between Canadian and American locals of the international unions. Canadian representatives regularly attended district and national meetings south of the international border. The Pacific coast metal trades councils held their

<sup>&</sup>lt;sup>27</sup> Letter, G.K. Sheils to Bryce Stewart "Labour Conditions in Shipbuilding Industry on West Coast," 11 April 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 2.

<sup>&</sup>lt;sup>28</sup> Flyer addressed to all shipyard workers, "Continuous Production for Shipyards," CVA, 9 April 1942, Pamphlet 1942-101.

Letter, George Sangster to F.E. Harrison, 15 April 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 2. The machinists later presented a motion before the Vancouver metal trades council condemning the Joint Conference of Shipyard Unions and the AFL affiliated locals for supporting the minister of labour's continuous production plan. Minutes, Meeting 20 May 1942, CVA, Vancouver Metal Trades Council fonds, Add. Mss. 558 Vol. 2.

third annual convention in Vancouver during February 1940. The AFL's Canadian locals were typically better informed than Canadian government officials about American conditions and knew that organized labour received greater voice and participation at the highest levels. John Frey, president of the AFL metal trades department in Washington DC, consulted with the United States Maritime Commission and the Navy Department, the lead procurement agencies for merchant ship and naval construction, directly on a Shipbuilding Stabilization Committee of Roosevelt's National Defense Advisory Commission, later transformed into the War Production Board.<sup>30</sup>

The Shipbuilding Stabilization Committee divided the United States into four zones and proceeded first with talks and negotiations to settle uniform wage rates, hours, and conditions along the entire Pacific coast. During meetings between February and Apri 11941, shipbuilders and the AFL Pacific coast metal trades councils negotiated a zone master agreement, which established a standard wage of \$1.12 per hour for skilled mechanics subject to cost of living adjustments, overtime above a standard 40 hour week, and shift premiums.<sup>31</sup> Roosevelt sent Isador Lubin, his chief statistician who possessed a background in labour relations, to the west coast to assist in shippard talks bringing the master agreement into effect and to gain a no-strike pledge from the unions involved. With formal entry of the United States into the war after Pearl Harbor, the Americans dramatically expanded production and shipbuilding activity. Admiral Emory Land, chairman of the US Maritime Commission, endeavoured to ensure the continued cooperation of labour under the zone master agreements and in general freeze existing relationships.<sup>32</sup> The higher pay offered by shipyards nationally and regionally contributed to rising inflation. In order to enforce more stringent controls on prices and wages, Roosevelt made a personal appeal to organized labour in Spring 1942 to revise the zone agreements in the shipbuilding industry and facilitate continuous production.33 Although Mackenzie King had written a book on labour relations, Canada's prime minister never made any similar overture toward shipyard workers and companies in British Columbia. At a national shipbuilding conference held in Chicago on 16 May 1942, an agreement was signed which provided for a standard hourly wage of

Frederic C. Lane, Ships for Victory: A History of Shipbuilding under the U.S. Maritime Commission in World ^•//(Baltimore: Johns Hopkins Press, 1951), 273.

Memorandum, 19 February 1941, National Archive and Records Administration, College Park, RG 80, Correspondence of Joseph Powell Navy Representative on the Shipbuilding Stabilization Committee October 1940 - September 1941, Box 1 File 1. US Department of Labor, Bureau of Labor Statistics, *Wage Chronology: Pacific Coast Shipbuilding 1941-67*, Bulletin No. 1605 (Washington, DC: Government Printing Office, August 1968), 8.

Memorandum, E.S. Land "Ship Stabilization Conference, March 9th," 12 March 1942, Manuscript Division, Library of Congress, Washington, DC, Admiral Emory Scott Land papers, Box 29 File "Special Correspondence: Operational Memoranda and Notes April 1941-March 1945."

<sup>&</sup>quot;Address by Assistant Secretary of the Navy Ralph A. Bard at the Convention of the Metal Trades Department American Federation of Labor Statler Hotel, Boston, Massachusetts Tuesday, September 28, 1943," Naval Historical Center, Washington, D C, Operational Archives Branch, Ralph A. Bard papers, Box 3. Joseph Wright Powell, "Labor in Shipbuilding," F.G. Fassett, Jr., (ed.), The Shipbuilding Business in the United States of America, Vol. 1 (New York: The Society of Naval Architects and Marine Engineers, 1948), 286.

\$1.20 retroactive to 1 April 1942, modified previous premiums and bonuses in furtherance of continuous production, and introduced one week of paid vacation for workers after a set period of employment and no evidence of absenteeism. Frey and the AFL leadership reaffirmed the wartime no-strike pledge and acted when necessary to enforce the zone agreement among the affiliated unions and locals.

In the United States, government and employers engaged established labour leaders through the AFL metal trades department and councils over a lengthy period of time and in a serious manner at higher levels to secure regional stabilization of wages on the Pacific coast before going to the unions. Zone-wide standard wage rates and conditions gave the US Maritime Commission greater stability in costs and prices of ships. 35 In Canada, on the other hand, discussions were rushed and left in the hands of local officials such as Harrison and Taylor to deal with individual unions whose memberships were often new and radical in their views. The fractured nature of Canadian labour in British Columbia shipbuilding almost ensured that someone would disagree and wait for a better deal, especially when the attractiveness of American continuous production arrangements was readily apparent. The Pacific coast metal trades councils offered 52 hours paid for 48 worked on the first shift, 57.2 paid for 45 worked on the second shift, and 59.8 paid for 42 worked on the third shift, compared to 50 hours paid for 48 worked on the first shift, 54 paid for 46 worked on the second shift, and 54 paid for 43 worked on the third shift in Vancouver under the Department of Labour's plan. 36 British Columbia shipyard workers would work longer for less money than their American counterparts and moreover fared worse in matters of holidays and overtime. Those unions who looked toward something better for themselves and their fellow workers met threats of intimidation and coercion in the resulting stand-off with Mitchell and the Department of Labour over the terms of continuous production.

Mitchell's decision to invoke legislation to enforce continuous production onto the wayward unions polarized shipyard workers away from the government and undermined overall labour support for the original plan. Mitchell held off on public announcement of PC 3636, an order-in-council passed in Ottawa on 1 May 1942, setting out 48/50 for the first shift, 46/54 for the second shift, and 43/54 for the third shift. On 3 May 1942, the blacksmiths local one overwhelmingly turned down the proposed supplementary agreement in a special vote and wrote Mitchell: "As an organization of skilled and patriotic men, we desire to see the work of building ships proceed as fast as possible but cannot see that acceptance of your proposals will accomplish this desired end." The blacksmiths and

<sup>&</sup>quot;Proposed Amendments to the Pacific Coast, Atlantic Coast, Great Lakes, and Gulf Coast Zone Standards of the Shipbuilding Industry,"NAC, RG 27 Reel T-10093 Vol. 89 File 423.2:10 pt. 4.

<sup>&</sup>quot;Memorandum as to Maritime Commission Contracts," Emory Land to Isador Lubin, 22 September 1943, Franklin D. Roosevelt Presidential Library, Hyde Park, Isador Lubin papers, Box 118 File "Shipping and Shipbuilding November 1942-December 1943."

Letter, F.E. Harrison to Bryce Stewart, 1 May 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 2.

<sup>&</sup>lt;sup>17</sup> Letter, Clifford Rouse to Humphrey Mitchell, 3 May 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 2.

machinists refused to work Saturday nights and Sundays without payment of overtime stipulated in the basic agreements.

News of the order-in-council broke in the Vancouver press, and the reaction from organized labour was swift and unequivocal. On 13 May 1942, the Joint Conference of Shipyard Unions sent a telegram in protest to Mackenzie King: "The successful operation of the continuous production plan depends on the harmonious cooperation between government, management and labour. Orders in council are coercive in character and establish the method of enforcing labour conditions by arbitrary means. This creates a status of forced labour when free labour must be the standard bearer in every democracy. Nine shipyard unions having signed supplementary agreements on the seven day a week continuous production program condemn the coercive method of order in council affecting all shipyards on west coast whatever its objective and urge its retraction."

Unwilling to take the time or effort in promoting the cooperation achieved in US Pacific coast shipyards, Mitchell chose a fast solution that only distanced remaining unions from smooth adoption of continuous production. Even though the companies and Wartime Merchant Shipping refrained from enforcement of PC 3636 for the time being, MacMillan warned "that conditions in yards this weekend [16 May] will be chaotic if yards decide not to work Sunday," due to the absence of the machinists and consequent disruption to production." Pressure on Mitchell to act decisively continued to rise, but he held to the belief that the machinists would capitulate. In reply to an appeal from Harvey Brown, international president of the machinists union in Washington DC, to resolve the matter with the Canadian government, grand lodge representative George Sangster reiterated the demand for the American continuous production plan at Vancouver rates of pay.40 Further talks between labour department officials and unions over the next three weeks suggested that the machinists might accept a modified six day plan put forward by the Joint Conference of Shipyard Unions or alternatively pay for fifty-six hours on the second and third shifts. Mitchell vetoed both ideas, though McAuslane reported that the boilermakers were rethinking the supplementary agreements and might vote to overturn them.

In mid-June, notices went up in the shipyards on instructions from Wartime Merchant Shipping that all workers not showing up for scheduled Sundays would face disciplinary measures. Clarence Wallace, however, declared that Burrard Dry Dock would not suspend workers, as stipulated by Wartime Merchant Shipping, "unless required to do so by Federal government regulation." The wartime emergency yards, such as West Coast

<sup>&</sup>lt;sup>38</sup> Telegram, M. MacLeod to Mackenzie King, 13 May 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 2.

Telegram, H.R. MacMillan to Humphrey Mitchell, 14 May 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 2.

Letter, George Sangster to Harvey Brown, 19 May 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 Pt-3.

<sup>&</sup>lt;sup>41</sup> Letter, F.E. Harrison to A. MacNamara, 18 June 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 3.

Shipbuilders, stood ready to dismiss workers not conforming to the government's continuous production plan. Taylor counselled employers to stay the course with the unions. In defiance of the order-in-council and the shippard notices, the machinists and blacksmiths started strike action against the seven day plan in three Vancouver shipyards on 23 June. 42 Mitchell threatened strikers with prosecution before the courts for engaging in what he labelled illegal and unpatriotic activities. To back up his tough words, Mitchell quickly pushed through on 25 June another order-in-council, PC 5450, which reaffirmed the continuous production plan and set out fines ranging from \$50 to \$500 for individual workers who failed to show up for scheduled shifts. 43 Since skilled workers in jail could not build ships, monetary penalties were made intentionally heavy. The shipyard unions denounced this order-in-council and others as "the most vicious pieces of anti-labour legislation ever passed."4 The machinists and blacksmiths remained off work and offered instead to return on the basis of the original basic agreement. The labour minister was now faced with actually fining upwards of a thousand recalcitrant workers or backing down. At this critical juncture, the Joint Conference of Shipyard Unions sent a delegation to see Mitchell in Ottawa to present and discuss alternative arrangements for continuous production's implementation.

The shipyard delegation's visit in late June 1942, though achieving little in terms of its stated purpose, allowed Mitchell a small opening from the impasse. Lawrence Anderson, secretary of the Joint Conference of Shipyard Unions and member of the amalgamated shipwrights union, argued that several weeks of trying to impose continuous production by arbitrary direction caused chaos in the shipyards and sagging morale among workers. During a meeting with Mitchell on 26 June, Anderson and other trade union delegates presented a brief outlining the background to the crisis from their perspective and called for a five and half day work week in place of the seven day staggered plan. <sup>45</sup> The unions, both those who had signed supplementary agreements and those who had not, disliked the Canadian plan and the way the Department of Labour tried to implement it. Production was at a standstill with the machinists and blacksmiths on strike. Unless Mitchell acknowledged the seriousness of the situation and the concerns of workers, other unions would join opposition against the existing plan, the labour delegates declared.

Mitchell was put into a quandary. If he turned down the delegation's proposals outright as seemed the only course of action, discontent would likely spread among the other

<sup>&</sup>quot;Machinists, Blacksmiths Down Tools," *Vancouver Sun* (23 June 1942), NAC, RG 27 Reel T-3023 Vol. 418 File 155. Telegram, F.E. Harrison to Humphrey Mitchell, 24 June 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 3.

<sup>&</sup>lt;sup>4</sup> Letter F.E. Harrison to Bryce Stewart, 27 June 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 3

<sup>&</sup>quot; Minutes, Regular Meeting, 23 July 1942, CVA, United Sheet Metal Workers International Association Local 280 fonds, Add. Mss. 251 Box 2 Vol. 10.

<sup>&</sup>quot;Brief presented to Hon. Humphrey Mitchell, Minister of Labour, Ottawa, by Joint Conference of Shipyard Unions, Vancouver, B.C.," NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 3; Letter, Lawrence Anderson to Halford Wilson, 26 June 1942, CVA, Wilson Papers, Add. Mss. 362 Vol. 42 File 8, 26 June 1942.

20,000 workers in British Columbia shipyards. But, acceptance of new arrangements represented a major retreat from the principle of maximum production behind the war effort and a personal admission of failure. Mitchell called upon organized labour to give the continuous plan "a fair trial" over the next thirty days while consultations took place with Canadian and American procurement authorities in regard to organized labour's proposals, to which the delegation assented before departing back to Vancouver. The machinists and blacksmiths returned to work on 3 July after majorities in the two unions voted to try the continuous production plan in the interim. Sangster, however, warned that "notwithstanding the fact that the [machinist] union has agreed to the Minister's proposal, this attitude does not finally dispose of the situation." Shipyard workers expected concessions from Mitchell. The crux was that Wartime Merchant Shipping and the Department of Munitions and Supply were adamant that a continuous production plan on an American model, minus the beneficial concessions toward labour, was the best means to reach full production and guarantee continued American supply of steel to Canadian shipyards.

The result was a judicial inquiry to investigate the whole situation in British Columbia shipyards. Sometime around 7-8 July 1942, Mitchell decided to appoint a royal commission to inquire into British Columbia shipyard conditions and asked the two leading labour organizations in the country to suggest labour representatives. The Trades and Labour Congress of Canada nominated Chris Pritchard from the plumbers and steamfitters and president of the Vancouver metal trades council, while the Canadian Congress of Labour named Alex McAuslane. Don Service from North Van Ship Repairs and Hugh Lewis from Burrard Dry Dock's south yard were selected to represent shipyard employers. The deputy minister of labour remarked at the time: "We came to the conclusion that the worst we would get is a majority report and with good prospect of a unanimous report."48 The royal commission formally came into existence on 13 July 1942 under PC 5964 and constituted a board of conciliation and investigation under the Industrial Disputes Investigation Act. Justice Stephen Richards, a judge on the Manitoba Court of Appeal, received terms of reference from the Department of Labour asking him as chair to examine labour and management factors affecting production and related matters in the shipyards." Once Richards arrived in British Columbia on 20 July, the royal commission began sittings at the Vancouver court house.

From the outset, Richards tried to strike an impartial balance between the conflicting

<sup>\*\*</sup> Letter, Humphrey Mitchell to Alex McAuslane, 29 June 1942, NAC, RG 27 Reel T-10093 Vol. 88 File 423.2:10 pt. 3.

Letter, F.E. Harrison to A. MacNamara "Continuous Operations - Pacific Coast Shipyards," 3 July 1942, NAC, RG 27 Reel T-10093 Vol. 89 File 423.2:10 pt. 4. An estimated 5,950 man working days were lost during the ten day strike. Memorandum, H.A. Wilson to deputy minister "Labour Conditions - Esquimalt," 5 August 1942, NAC, RG 24 Acc. 71/251 Vol. 9459 File NSC 3450-3.

<sup>&</sup>lt;sup>48</sup> Memorandum, A. MacNamara to Humphrey Mitchell, 9 July 1942, NAC, RG 27 Reel T-10093 Vol. 89 File 423.2:10 pt. 4.

<sup>\*\*</sup> Letter, A. MacNamara to Stephen Richards, 15 July 1942, NAC, RG 27 Reel T-10093 Vol. 89 File 423.2:10 pt. 4.

views of the government, unions, and shipbuilders. Interested parties submitted written briefs, backed up by oral testimony before the royal commission. The first witness, Harvey MacMillan, described Wartime Merchant Shipping's role in relation to merchant ship construction and drew comparisons with operation of continuous production in the United States: "the objective we have got to have is [to] build the utmost ships per berth per year, otherwise we would be subject to complaint...We must remember that this question of turning over the shipyards to form an organization where they will work the equipment seven days a week by means of a system of staggered shifts is not something which we are approaching without any knowledge or experience, because it has been applied elsewhere. It is an emergency scheme which on the American side has met with success." Union representatives present and Commissioner McAuslane questioned MacMillan about the relationship with the Department of Labour and the instructions issued to put continuous production into effect. MacMillan answered in a somewhat evading manner that Wartime Merchant Shipping held no sway over shippard wages and labour conditions, though he admitted that his organization talked with the shipbuilders about such matters." Anderson representing the Joint Conference of Shipyard Unions and Sangster speaking for the machinists, in their testimony, spoke out against the arbitrary and "dictatorial" methods used by Mitchell to force continuous production onto the unions. Richards wrote in a private letter that the "unions must be allowed the right to present their case in their own way and that any attempt to interfere with or restrict them would bring the cry that the commission was unfair."52

Numerous workers selected by the unions to testify before the royal commission expressed general dissatisfaction with the continuous production plan and questioned its negative effect on shipyard morale. The orders-in-council were emotional, but the real issue was pay. Workers resented loss of overtime premiums under the new plan and preferred the original basic agreement. William Richards, a blacksmith employed at North Van Ship Repairs, perhaps best summarized the issue in his testimony: "If we had been allowed or told rather to work it [continuous production] under our agreement, we would have and kept the bargain, and there is nothing in our agreement that doesn't say we couldn't work that sevenday plan. Of course, it would mean double time for Sundays and holidays, but from what you read regarding the high percentage of increase of production, they could pay us that double time and time and a half and time over and still get the best of the bargain. And yet they brought this about and enforced it in a very dictatorial method .... Well as an ordinary tradesman from the shipyards, I can say it is time we got together and teamed up, labour with management, union with union, and with our combined efforts it may be possible to

<sup>&</sup>quot;In the Matter of the 'Inquiries Act' and of a Royal Commission to Examine into and Report as to the Most Effective Means of Securing Maximum Production in the Shipyards in the Province of British Columbia: Proceedings of Inquiry," 21 July 1942, 18, NAC, RG 27 Reel T-10186 Vol. 268 File 2.

<sup>&</sup>lt;sup>51</sup> "Proceedings of Inquiry," 21 July 1942, 45-46, NAC, RG 27 Reel T-10186 Vol. 268 File 2.

<sup>&</sup>lt;sup>s2</sup> Letter, S.E. Richards to A. MacNamara, 27 July 1942, NAC, RG 27 Reel T-10093 Vol. 89 File 423.2:10 pt. 4.

turn out production in such weight and in such value that the war could be won." Continuous production was not rejected outright on principle. Average workers and their unions wanted cooperation and inclusive participation without giving up erstwhile gains to a miserly and coercive bureaucracy ready to run roughshod over the normal collective bargaining process.

The unions received support in this view from at least one employer. On the afternoon of 5 August, Clarence Wallace testified to his written statement: "the lack of support given to this plan is the result of the arbitrary manner in which its operation was introduced."54 He personally believed that continuous production with some changes could be successful if government was willing to cooperate constructively with management and labour. Although referring to no individuals by name, Wallace was highly critical of government actions so far and continuous production's apparent lagging results. Once this testimony reached the national press, MacMillan dissuaded Howe that "Wallace should be relieved of the management of his yards at once and a Government representative should take control" because "the effect would be to martyr him and to make the shipyard workers feel that any employer who championed their cause would be disciplined."55 Exactly how the government could have justified displacing the owner of a private enterprise simply because of his expressed views rather than incompetent management, even during wartime, was left unexplained. Other operators appearing before the royal commission were less sympathetic toward labour. Arthur McLaren wholeheartedly supported the staggered seven day plan and observed "that it may be easier to get men than machines and if that is the case the machine should be loaded every day in the week." The testimony, consistent with West Coast Shipbuilders' general approach toward labour relations, attracted the ire of labour men in the room and at the table. After insistent questioning, McLaren conceded that his shipyard experienced more labour difficulties and higher turnover than other Vancouver yards. The royal commission learned that harmonious cooperation between the principal groups involved mutual understanding and willingness to solve common problems together without compulsion. This objective was never reached in British Columbia shipyards, where government policy, labour supply, and conditions were much different than in the United States.

Insight from American authorities into operation of continuous production in American shipyards along the Pacific coast was perhaps the most salient part of the proceedings. The amended zone master agreement set parameters for the AFL unions and individual shipyards to determine when and how continuous production came into effect. When Commissioner McAuslane asked why a similar approach was not taken in British

<sup>&</sup>lt;sup>53</sup> "Proceedings of Inquiry," 23 July 1942, 267-268, NAC, RG 27 Reel T-10186 Vol. 268 File 5.

<sup>&</sup>quot;Proceedings of Inquiry," 5 August 1942, 1008-1013, NAC, RG 27 Reel T-10187 Vol. 268 File 5. Letter, Clarence Wallace to Royal Commission, 4 August 1943, NAC, RG 27 Reel T-10187 Vol. 269 File 11.

<sup>&</sup>lt;sup>55</sup> Letter, Bryce Stewart to A. MacNamara, "On Recent Evidence Submitted by C. Wallace on the British Columbia Shipyards," 7 August 1942, NAC, RG 27 Reel T-10093 Vol. 89 File 423.2:10 pt. 4.

<sup>&</sup>lt;sup>56</sup> "Proceedings of Inquiry," 6 August 1942, 1097, NAC, RG 27 Reel T-10187 Vol. 269 File 5.

Columbia, Taylor testified on 7 August that he knew absolutely nothing about arrangements with labour in the United States and how they might pertain to the Canadian situation." Since Wartime Merchant Shipping's Vancouver representative was instrumental in framing the original continuous production plan with McClelland and MacMillan had already testified to American example, he was being less than honest or at least a difficult witness. Taylor similarly denied knowledge whether the government deliberately depressed wages to keep shipbuilding costs down. The initial cost of \$1,859,000 per ship built in British Columbia dropped significantly and was subject to later renegotiation by the Department of Munitions and Supply.<sup>58</sup> The next witness, Carl Flesher, who appeared at Taylor's request, was the US Maritime Commission's Pacific coast representative responsible for production. Flesher explained how continuous production was extended to thirteen out of fourteen west coast shipyards after a test case at the Kaiser yard in Portland, Oregon from 1 February 1942.<sup>59</sup> Unlike Taylor, Flesher was interested in good labour relations and attributed successful American continuous production to cooperation from the AFL metal trades. Rates of pay and hours were agreed upon through the Shipyard Stabilization Committee, and the US government until that time had never resorted to regulations like the Canadian orders-in-council. American shipyard workers, Flesher testified, received penalty overtime, two days offevery seven weeks, and paid vacation under the master agreement. McAuslane, in his questioning, remarked "that all of the good features of the American plan have been left out in the introduction of the plan in Canada."60 Flesher noted the flexibility accorded employers and unions from shipyard to shipyard to work continuous production as they felt best.

Over the next few days, the royal commission travelled to meet with American representatives about continuous production. Seattle shipyards, devoted almost entirely to naval work, worked the plan where appropriate and with some misgivings, whereas Portland area shipyards were arranged to make optimal use of continuous production to maximize cargo ship construction. The commissioners observed that workers in both cities seemed reasonably satisfied with continuous production, mainly because the unions were actively involved in the process through established management-labour committees. Flesher stated that Roosevelt was keen to maintain labour standards as much as possible during the war. A stop-over in Victoria gave the royal commission opportunity to solicit further submissions from unions and companies. Victoria Machinery Depot supported the need for continuous

<sup>&</sup>lt;sup>57</sup> "Proceedings of Inquiry," 7 August 1942, 1136-1137, NAC, RG 27 Reel T-10187 Vol. 269 File 6.

House of Commons, Special Committee on War Expenditures (Ottawa: Edmond Cloutier, King's Printer, 1944), 140-141. "Summary of Construction Costs for A11 Classes of Ships Listed to nearest Thousand Dollars," NAC, RG 28 Vol. 862 File "Wartime Shipbuilding Limited Ship Cost Report August 11\*, 1948."

<sup>&</sup>lt;sup>59</sup> "Proceedings of Inquiry," 7 August 1942, 1163-1170, NAC, RG 27 Reel T-10187 Vol. 269 File 6.

<sup>&</sup>quot;Proceedings of Inquiry," 7 August 1942, 1174A, NAC, RG 27 Reel T-10187 Vol. 269 File 6.

<sup>&</sup>quot;Memorandum re Commission Sittings at Seattle, Wash. August 9" and Portland, Or. August 10", "NAC, RG 27 Reel T-10187 Vol. 270 File 2.

<sup>&</sup>lt;sup>62</sup> US Department of Labor, Bureau of Labor Statistics, *Wartime Employment, Production and Conditions of Work in Shipyards*, Bulletin No. 824 (Washington, DC: Government Printing Office, 1945), 31.

production, while Yarrows, like the Seattle shipyards given over to naval work, expressed the opinion that "continuation of the present plan might result in deterioration of morale as long as the present conditions continue with regard to the lack of supply of skilled labour and inability to secure more." A large town like Victoria lacked the population of American cities and even its mainland neighbour Vancouver. During the royal commission's final public sitting on 14 August, a letter from Admiral Land was read into the record which described recent developments in the United States and agreed with Mitchell that greater alignment in shipyard labour policies "might be mutually advantageous of our two countries, at least when they come into close juxtaposition." The Americans possessed a workable continuous production plan, in contrast to the problems besetting the Canadian equivalent.

After another two weeks of closed deliberation, the royal commission issued a final report upholding the value and appropriateness of continuous production for British Columbia shipyards. The commissioners unanimously agreed upon numerous minor items viewed as impediments to maximum production, appointment of labour coordinators and labour-management production committees in the shipyards, and various matters affecting health and working conditions. Several issues came to light during investigations by special committees in Vancouver and Victoria, chaired by Norman Dobson. In a majority report, Richards, Service, and Lewis stated that sufficient evidence existed from American experience and continuous production's limited trial in selected Vancouver yards to demonstrate the staggered seven day plan's superiority over the six days proposed by the union delegation in terms of total output and expressed "the hope that complete harmony will exist in the shipyards in which the workmen and the managements are performing such valuable work, so vital at the present time." Acknowledgement was given to testimony about the confused way that continuous production had been pressed under the Department of Labour and the grievance many workers felt to losing Sunday as a day of rest. The numbers presented, however, were irrefutable. Continuous production reached levels of production possible under no other plan since total hours worked were significantly greater. Richards forwarded a copy of the majority report to Mitchell on 5 September. Minority reports to the royal commission's main recommendations, however, indicated that the controversy over continuous production was far from settled.

Labour representatives Pritchard and McAuslane dissented from the majority and advocated a six day week because the harmony essential to maximum production was not, they contended, possible under the current seven day plan. Pritchard wrote that oral and

Brief, Yarrows Limited to royal commission, 12 August 1942, NAC, RG 27 Reel T-10187 Vol. 270 File 2.

<sup>&</sup>quot;Proceedings of Inquiry," 14 August 1942, A-3, NAC, RG 27 Reel T-10187 Vol. 269 File 10. Land's letter was a reply to an earlier inquiry from Mitchell that ended: "it is desirable, insofar as possible, to align the shipbuilding labour policies of the two countries." Letter, Humphrey Mitchell to Emory Land, 21 July 1942, NAC, RG 27 Reel T-10093 Vol. 89 File 423.2:10 pt. 4.

<sup>&</sup>quot;Report of the Royal Commission on Production of Ships in the Shipyards of British Columbia," 28 August 1942, NAC, Trades and Labour Congress of Canada fonds, MG 28 1103 Vol. 236 File 13.

Letter, S.E. Richards to Humphrey Mitchell, 5 September 1942, NAC, RG 27 Reel T-10187 Vol. 269 File 11.

written evidence before the royal commission clearly showed that workers disliked staggered working days over Sundays; moreover, other obstacles to efficient production, such as transportation problems, housing, and absenteeism, remained unresolved. If the government still persisted with seven days, then the American plan's provisions were preferred. McAuslane, who shared much the same view, recommended that a joint conference between shipbuilders, unions, and government officials take place as early as possible to weigh the merits of the seven and six day plans as well as to implement the royal commission's main recommendations. In early September, Mitchell again sent Arthur Hills to discuss with local representatives conditions in Vancouver shipyards. While the response from workers toward the royal commission and its final report was generally positive, both labour and management "have been led to believe that they will receive concessions of some sort and are now awaiting the decision of the government."

The initiative was once more with Mitchell to find a means to make continuous production work in some form or another. In the course of a shipbuilding tour in North America, Amos Ayre left Vancouver in September with a favourable impression of the three main shipyards engaged in merchant ship construction and the labour in them." American and Canadian labour supply and the use of continuous production, particularly on the west coast, were impressive by British standards. The prospect of renewed labour unrest that might upset production if the royal commission's recommendations were not entertained seriously by the government weighed heavily upon Mitchell at this time. Two weeks following the final report's public release, the labour minister announced that in line with the Pritchard and McAuslane recommendations, Richards would return to British Columbia to conduct a conference with shipbuilders and workers. 70 Given the status of an industrial disputes inquiry commissioner, Richards was asked to deliver the labour harmony necessary for continuous production that Mitchell himself was unable to achieve and identified as lacking by the royal commission's majority and minority reports. The process of reconciliation in British Columbia shipyards turned out to be much longer and harder than either Mitchell or Richards anticipated.

During numerous meetings over several months, Richards addressed labour's standing grievances and gained broad support behind a modified continuous production plan inspired by American practice. At the first meetings in October, union representatives and the shipyard companies, represented by the newly organized British Columbia Shipbuilding

<sup>&</sup>quot;Shipyard Production: Pritchard for Six-day Plan Or U.S. System in Entirety," *Vancouver Province* (10 September 1942), NAC, RG 27 Reel T-3023 Vol. 418 File 156. Minutes, Meeting 16 September 1942, CVA, Vancouver Metal Trades Council fonds, Add. Mss. 558 Vol. 2.

Letter, G.R. Currie to A. MacNamara, 16 September 1942, NAC, RG 27 Reel T-10093 Vol. 90 File 423.2:10 pt. 5.

<sup>&</sup>quot;Visit of the Director of Merchant Shipbuilding to North America, September 1942," 25 September 1942, TNA, ADM 1/11684.

Department of Labour Press Release, 22 September 1942, NAC, RG 27 Reel T-10093 Vol. 90 File 423.2:10 pt. 5; "News Conference with Workers: Richards Returning to B.C. For Follow-Up Parley," *Vancouver Province* (23 September 1942), NAC, RG 27 Reel T-3023 Vol. 418 File 156.

Federation, debated and set aside the six day plan favoured by the Ottawa delegation and repeated in the royal commission's minority report. Richards viewed the attempt as merely a strong gesture by union leaders at the outset of negotiations since the relative benefits of the seven day plan were already on record from the royal commission.71 Mitchell and MacMillan were still committed to shipyards working on a full seven day basis once differences with labour were reconciled. Taking a fall-back position, the AFL-affiliated locals mutually agreed that the Vancouver "Metal Trades Council negotiate on the basis of the original agreements but if the government] decree 7 day work week, then we negotiate on the basis of the Pacific Coast Metal Trades Council Agreement as adopted at the Chicago Conference."72 Sangster presented a motion to Richards with a view to reaching such an agreement at some future date, principally covering Vancouver. Nonetheless, stronger representation of Canadian industrial unions on the local scene and consideration of shipbuilding areas in other parts of the province complicated affairs. In Victoria where CCL organizers were active, unions sought standing from Richards to be included in continuous production negotiations taking place in Vancouver. In Prince Rupert, continuous production never came into effect due to labour shortages to work three shifts effectively, although workers benefited from improvements brought in under the signed supplementary agreements.

While a province-wide agreement was preferred, Richards came to favour certain features of the US Pacific coast agreement pushed by the AFL unions at subsequent meetings. After private discussions with Taylor and MacMillan in mid-November, Richards wrote a memorandum comparing American and Canadian continuous production plans, and he asked the Department of Labour to consider including a week paid vacation besides six additional holidays as well as fifty-six instead of fifty-four weekly paid hours for the second and third shifts. MacMillan, concerned about preserving basic shipyard hourly rates in the rest of Canada and halting increased absenteeism, gave his support. With the Department of Labour's consent, Richards presented a resolution setting out revised hours and vacation pay provisions, in three days of meetings with company and union representatives, which started out with "hot arguments" and ended in "a very pleasant amiable tone." Delegates to the December joint shipyard conference, minus the boilermakers and the pipefitters, accepted the proposed American-like plan, as the unions took back the proposals to their memberships for votes and ratification. The previous hold-outs, the machinists, voted three to one in favour of continuous production under the new terms, no doubt a victory in their

<sup>&</sup>lt;sup>7</sup> Letter, S.E. Richards to A. MacNamara, 26 October 1942, NAC, RG 27 Reel T-10093 Vol. 90 File 423.2:10 pt. 5.

Minutes Meeting, 21 October 1942, CVA, Vancouver Metal Trades Council fonds, Add. Mss. 558 Vol. 2.
Letter, S.E. Richards to A. MacNamara, 18 November 1942, NAC, RG 27 Reel T-10093 Vol. 90 File 423.2:10 pt. 5.

<sup>&</sup>lt;sup>24</sup> Letter, F.E. Harrison to A. MacNamara, 19 December 1942, NAC, RG 27 Reel T-10093 File 423.2:10 pt. 5. "Judge Richards Leaves for Home," *Vancouver Sun* (19 December 1942), NAC, RG 27 Reel T-3023 Vol. 418 File 156.

minds. The same hours that Mitchell had turned down six months previously before the strikes now formed the basis for continuous production in British Columbia shipyards. Richards, Wallace's assistant C.R. Brenchley, and Thompson from North Van Ship Repairs went to Ottawa for submission of the proposed revisions to continuous production before the National War Labour Board.

Delay continued between continuous production receiving official government sanction and its finally being brought into full effect in British Columbia shipyards. After some debate, the National War Labour Board approved the revised hours and conditions in the new continuous production plan during January 1943. Richards and Mitchell impressed upon board members the urgency for sake of the war effort and the months of tough negotiation and reconciliation behind the proposals. The majority of unions in favour of the December proposals grew impatient over bringing the improvements into force. During mid-January, the international unions, still well informed about better wages, hours, and vacations in American shipyards, entertained visiting British shipbuilding trade union delegates during stops along the Pacific coast.75 Comparisons between American and Canadian implementation of continuous production were drawn during casual table conversation. Indeed, Richards advised that "the government will indeed be fortunate if they are able to maintain satisfactory relations with the small concessions given under the proposed supplementary agreement which has been authorized by the National War Labour Board."76 The Americans themselves were considering changes beneficial to workers. As more time went by, the likelihood of one or more unions reopening demands for increased pay or other consideration increased.

Two unions still deferred votes on acceptance of the continuous production plan as negotiated under Richards. The boilermakers and iron shipbuilders local was divided by a bitter leadership struggle with a new faction led by William Stewart, whilst McAuslane and the CCL backed the losing side in the nasty affair. The Department of Labour postponed starting continuous production until the internal dispute was resolved, especially since McAuslane refused to recognize any agreement signed by Stewart's executive. The CCL finally withdrew from the fight and chose to suspend the Vancouver boilermakers from the national body. Perhaps frustrated by this eventual loss, McAuslane lashed out at the government's proposed plan, which he declared to press reporters on 8 March 1943 should be named "continual irritation" rather than continuous production. Other unions merely wanted improved pay and promised vacation under the new plan. Meanwhile, Richards

<sup>&</sup>quot;Report submitted by Members of the Government Delegation appointed by the British Ministry of Labour to study the methods of ship construction in United States: Period of Tour December 14<sup>a</sup>, 1942 to February 5<sup>a</sup>, 1943," NAC, Milne papers, MG 30 B121 Vol. 2 File 2-1.

<sup>&</sup>lt;sup>76</sup> Letter, S.E. Richards to A. MacNamara, 1 March 1943, NAC, RG 27 Reel T-10094 Vol. 90 File 423.2:10 pt. 6.

<sup>&</sup>lt;sup>77</sup> Letter, D. O'Brien to Pat Conroy, 29 September 1943, NAC, Trades and Labour Congress of Canada fonds, MG 28 1103, Vol. 72 File 17. The Marine Retirees Association, *A History of Shipbuilding in British Columbia* (Vancouver: College Printers, May 1977), 52-62.

McAuslane Brands Ottawa Control of Shipyards Stupid," Vancouver Province (8 March 1943).

believed that the Vancouver AFL-affiliated pipefitters union, deliberately delayed voting "as a club to force the remedying of minor grievances against the shipbuilding companies." Talks in Vancouver dragged into March and then April.

Continuous production went ahead in Victoria, where companies and unions had unanimously pressed the government to proceed since 25 February. At a 22 March conference in the Empress Hotel attended by Richards and Harrison, agreements were signed based on the new plan, superseding the April 1942 supplementary agreements. Richards, the Department of Labour, and union leaders optimistically hoped that Victoria shipyard workers getting more pay and vacations would have a salutary effect on the attitudes of their counterparts, a message clearly set out in notices posted in Vancouver area shipyards on 12 April. 80 Richards sat down to serious negotiations with representatives from the Vancouver unions, some of whom pressed for consideration in matters of detail. The Vancouver metal trades council, at the insistence of the painters, argued that time applied to vacations with pay be made retroactive to 1 January 1943 because most unions had agreed to the December proposals and the long wait was no fault of their own. \* The Department of Labour conceded on this small point, although Mitchell was obstinate about not making more concessions, a view not shared by Richards. Burrard Dry Dock and other members of the British Columbia Shipbuilders Federation signed supplementary agreements with the unions to bring continuous production on the new terms into effect from 2 May 1943.82 Vancouver shipyard workers now theoretically looked forward to the same pay and benefits that Victoria shipyard workers had received for over a month.

Almost as soon as the May supplementary agreements were signed, arrangements behind working continuous production on a seven day basis began to fall apart. Even though individual workers in the unions overwhelmingly favoured ratification of the new plan, support for promises of higher pay and vacations masked serious problems of morale and labour relations in the shipyards. Adjustments to paid vacations required approval from the National War Labour Board, and some union leaders wondered if the government interpreted the supplementary agreements differently than what had been negotiated with Richards. On 27 May, the Vancouver metal trades council wrote to Ottawa to say that

<sup>&</sup>lt;sup>79</sup> Letter, S.E. Richards to A. MacNamara, 18 March 1943, NAC, RG 27 Reel T-10094 Vol. 90 File 423.2:10 pt. 6.

Notice to Vancouver shipyard workers, "Vacations with Pay," 12 April 1943, NAC, RG 27 Reel T-10093 Vol. 90 File 423.2:10 pt. 6.

Minutes, Meeting 21 April 1943. CVA, Vancouver Metal Trades Council fonds, Add. Mss. 558 Vol. 2. Letter, E. W. James to F.E. Harrison, 8 May 1943; "Seven Day Continuous Production Plan. Interpretation of Agreement as affecting Vacation with Pay," CVA, Painters and Allied Trades Union Local 138 fonds, Add. Mss. 304 Vol. 25 File 23.

Agreements between Burrard Dry Dock Company Limited and Amalgamated Building Workers of Canada Shipyard Section; Dock and Shipyard Workers' Union Vancouver and District Local No. 2; Boilermakers and Iron Shipbuilders Union of Canada Local No. 1; Local No. 170 United Association of Journeymen Plumbers and Steamfitters, 1 May 1943, NVMA, Versatile Pacific fonds, Fonds 27 Series 111 Box 561 File 82.3 "Union Agreements and Correspondence 1939-1946."

Companies connected with the British Columbia Shipbuilders Federation also departed from the letter, or at least the spirit, of the supplementary agreements. The primary reason was labour shortages due to high levels of absenteeism, especially on Sundays. Given the government's sluggishness on implementing paid vacation time, many shipyard workers decided individually that disincentives against not showing up for scheduled work were less important than free time on traditional days off. While companies considered absenteeism chiefly a matter of union discipline, organized labour cited lack of faith among workers in the supplementary agreements and the sincerity of government and management to live up to them. Dan Macpherson, the appointed labour coordinator at Burrard Dry Dock's north yard, "felt that the companies would have been better off had they gone along on an AFL agreement which they could have had."\* The retrospective comment after more than a year of federal intervention to push continuous production disclosed the arbitrariness behind labour relations in British Columbia shipyards.

While workers took little ownership in the concluded supplementary agreements, the companies by their words and actions wanted out of continuous production. At a union meeting on 22 July, Erwin Warford reported that 1,100 absentees failed to work the previous Sunday at Burrard Dry Dock and "a move was afoot to revert back to the 5 and half day week."85 Employers colluded in quietly putting aside the main tenets of the continuous production plan. Writing to MacMillan, Taylor described the confused and difficult labour situation in the shipyards, and he blamed companies principally for not exerting enough discipline over workers and their unions. \* Instructions from Wartime Merchant Shipping in the coming weeks extended time between ship launchings from sixty to eighty days and demanded economies in operations. Due to lessened demand for merchant ships, Wartime Merchant Shipping agreed to transfers of workers to the logging and mining industries and gradual reductions in most skilled trades. Since employment guarantees were still in effect for the duration of continuous production, any further action was technically in violation of the supplementary agreements. When Hugh Lewis and Don Service, previously of the royal commission, began dismissals and layoffs at their respective yards, Harrison's assistant George Currie opined, "The management of at least one company has been antagonistic to the plan and others have been more or less indifferent. Largely through improper organization the plan had placed extra work upon foremen and others with the result that a large section of the supervisory staff has been opposed to work on Sundays." Although the

Memorandum, Vancouver Metal Trades Council to National War Labour Board, 27 May 1943, CVA, Vancouver Metal Trades Council fonds, Add. Mss. 558 Vol. 2.

Minutes Meeting, 18 August 1943, CVA, Vancouver Metal Trades Council fonds, Add. Mss. 558 Vol. 2.

Minutes, Regular Meeting 22 July 1943, CVA, United Sheet Metal Workers International Association Local 280 fonds, Add. Mss. 251 Box 2 Vol. 10.

Letter, Austin Taylor to Harvey MacMillan, 29 July 1943, University of British Columbia Library Special Collections, Harvey Reginald MacMillan papers, Box 24 File 17.

Letter, G.R. Currie to M.M. Maclean, "Pacific Coast Yards," 31 August 1943, NAC, RG 27 Reel T-10094 Vol. 91 File 423.2:10 pt. 8.

pretence of Sunday work was maintained, companies made little attempt to hide from unions pending layoffs. Thus, ending of continuous production, only months after coming into full operation in British Columbia, was a necessary precondition for major reductions in the shipyard labour force.

It was telling how quickly shipbuilders and unions jettisoned continuous production. Sunday absenteeism among those still working seven days was rampant, and companies saw little point in enforcing government regulations. In Vancouver on 23 September, Wartime Merchant Shipping informed company and labour representatives that hull launches were being further extended from eighty to one hundred days, and consequently workers in shipyards should revert from continuous production back to five and half days under the basic agreement.<sup>55</sup> The third shift was completely eliminated, Sundays were again off for everyone, and layoffs of five thousand workers were distributed gradually among Burrard's two yards and North Van Ship Repairs. "Rather surprised that the unions did not take advantage of the opportunity to press for changes in conditions and the retention of the attendance premiums," Currie observed that workers, "have been demanding getting rid of the continuous plan and seemed to have reached a fairly satisfactory settlement." As the change required no referral to the National War Labour Board, Vancouver shipyards returned to the basic agreement provisions with the unions starting 27 September 1943. The continuous plan remained in effect on a temporary basis for work on tankers scheduled for completion at West Coast Shipbuilders the following Spring.<sup>50</sup> Naval-related conversion work sustained shipyard employment in the Vancouver area for a period longer. By 30 September, total employment in all British Columbia shipyards engaged in merchant ship construction stood at 23,453, down from a peak of 27,150 in late July 1943. In Victoria, the general managers at Yarrows and Victoria Machinery Depot tired of waiting for federal labour officials to consult with the National War Labour Board about differences with the original agreements and after consulting with union representatives on 25 October, immediately set aside continuous production in favour of the five and half day week.91 Feelings were mixed because shipyard workers were generally happy to be rid of the disliked continuous production, but they realized that winding down of wartime shipbuilding meant loss of jobs. Rapid contraction of shipbuilding in British Columbia followed the same attitude of expediency and indifference, which characterized continuous production, rather than any federal government commitment to developing shipbuilding as a sound industry in the province on a permanent basis.

Continuous production in British Columbia's wartime shipyards was undermined

Minutes Regular Meeting, 23 September 1943, CVA, United Sheet Metal Workers International Association Local 280 fonds, Add. Mss. 251 Box 2 Vol. 10.

<sup>&</sup>lt;sup>89</sup> Letter, G.R. Currie to M.M. Maclean, "Shipyards - Vancouver and Victoria, B.C.," 4 October 1943, NAC, RG 27 Reel T-10094 Vol. 91 File 423.2:10 pt. 8.

Minutes Meeting, 20 October 1943, CVA, Vancouver Metal Trades Council fonds, Add. Mss. 558 Vol. 2.

<sup>&</sup>lt;sup>91</sup> Letter, G.R. Currie to M. M. Maclean, "Shipyards - Victoria, B.C." 30 October 1943, NAC, RG 27 Reel T-10094 Vol. 91 File 423.2:10 pt. 8.

by a failure to establish the working harmony necessary between state, private enterprise, and labour to achieve maximum shipbuilding output. Much of the responsibility for this state of affairs rested with federal authorities, in particular Humphrey Mitchell and Harvey MacMillan. Hurried attempts to achieve quantity production and impose new ways of working without unqualified support from employers and workers exacerbated the challenges facing a rapidly expanded wartime industry. Time and patience were required to involve the respective stakeholders in the process, as happened in negotiation of regional zone agreements covering shipyard wages and conditions in the United States. Canadian procurement authorities and west coast unions liked the American model of continuous production, the former for the potential results and the latter for the better wages and conditions of employment such as paid vacations. Unfortunately, the Department of Labour, with Wartime Merchant Shipping applying constant pressure in the background, was unwilling to entertain anything other than the government's initial plan. Disagreements over the details of continuous production involved ultimatums, threats of coercion under punitive orders-in-council, and disruptive strikes. The machinist union held out for a better deal to benefit all shipyard workers in British Columbia. With previous commitments from the unions sliding, the royal commission held under Justice Richards aired outstanding issues from the respective sides and upheld the value of continuous production after judicious and careful examination. The companies and most unions, including the machinists, became reconciled to a modified continuous production plan presented by Richards by late 1942. Ironically, the agreed hours were almost the same as those Mitchell turned down before the royal commission. Months of disrupted production, troubled labour relations, and legal inquiry surrounding continuous production were entirely avoidable with better handling from the national government and its representatives.

Richards laid the groundwork for cooperation, but due to turmoil in the union representing the majority of shipyard workers, continuous production was not brought into full effect in Victoria until April 1943 and in Vancouver the month after. For the short time of actual operation, continuous production proved almost unworkable because of high absentee rates among workers and lack of commitment from shipyard owners and supervisors. Decreased demand for merchant ships removed the entire rationale for continuous production and furnished the opportunity to return back to previous arrangements. While few in British Columbia shipyards were sad to see the end of continuous production, the consequent loss of employment focussed unions and employers into consideration of post war prospects for the shipbuilding industry. The organizations formed in response to the continuous production controversy redirected their attention toward lobbying for a national policy of sustained shipbuilding and the economic activity and employment it would foster in British Columbia. If federal government intervention to speed up wartime shipbuilding unsettled existing relations in the shipyards, then the indifference from Ottawa once the wartime emergency passed did nothing to ease the transition to peacetime. In retrospect, the small increase in merchant ship production achieved through continuous production hardly contributed to the health of an industry vainly looking toward future growth and prosperity.

Comparison of Wartime Shipyard Employment in British Columbia and Washington State

## EMPLOYMENT IN BRITISH COLUMBIA SHIPYARDS

Location	1939	1942	1943	1944					
Victoria Vancouver	278 134	1,869 17,594	5,723 24,392	5,845 18,805					
Prince Rupert	0	1,381	1,554	1,396					
EMPLOYMENT IN WASHINGTON STATE SHIPYARDS									
Location	1941	1942	1943	1944					

Location	1941	1942	1943	1944		
Puget Sound	39,100	74,600	97,000	80,500		
Vancouver (Wash.)	19,300	44,900	121,400	112,200		
(includes Portland, Oregon)						

Sources: Dominion Bureau of Statistics, *Annual Industry Report: The Shipbuilding Industry;* US Department of Labor, Bureau of Labor Statistics, *Wage Chronology: Pacific Coast Shipbuilding 1941-67.* 

## Percentages of Vancouver Shipyard Workers represented by the Joint Conference of Shipyard Unions in mid-1942

Boilermakers and Iron Shipbuilders of Canada Local 1 (CCL)		
Dock and Shipyard Workers' Union Local 2 (CCL)		
Shipwrights, Caulkers and Joiners Union Unit 2 Amalgamated Building		
Workers (CFL)		
International Brotherhood of Plumbers and Steamfitters Local 170 (AFL)	4%	
International Brotherhood of Painters and Decorators Local 138 (AFL)	3%	
International Brotherhood of Sheet Metal Workers Local 280 (AFL)		
International Association of Stationary Engineers (AFL)	1%	
International Brotherhood of Electrical Workers Local 213 (AFL)	1%	
National Union of Operating Engineers Local 2 (CCL)		
Blacksmiths and Helpers Union of Canada Local 1 (CCL)		
Patternmakers Union Unit 1 Amalgamated Building Workers (CFL)		

Affiliations: CCL = Canadian Congress of Labour; AFL = American Federation of Labor; CFL = Canadian Federation of Labour. (International Association of Machinists Lodge 692 (AFL) negotiated outside the Joint Conference of Shipyard Unions until after the royal commission.)

Source: Halford David Wilson papers, Add. Mss. 362 Vol. 42 File 8, City of Vancouver Archives.