INL-00772
12B.2.a
Inland Steel Award No. 772
This case was published in Steel Arbitration as [25 Steel Arb. 18,880]
RECOGNITION AND BARGAINING UNIT

SUMMARY: The Company did not violate the Agreement when it contracted out the overhauling of segments for the #2 Caster for performance outside the plant. It was more reasonable for the company to contract out the work than to have it performed by its own employees, within the meaning of the 1986 Agreement provisions on the subject. There was no adverse impact on the bargaining unit at the time (Factor 1). Hiring of new employees or recall of laid-off mechanics was not feasible in view of the temporary nature of the work and the necessity for training (Factors 2 and 3). It could not be found that qualified employees could have been pulled off other work in order to avoid contracting out (Factor 4). The evidence was insufficient to support any finding as to availability of qualified supervisors (Factor 5). There was more work than the trained employees and necessary equipment could do in the allotted time (Factors 4 and 6); an emergency situation was presented, for which Management was not at fault. It did not appear that cost saving was a factor in the contracting out (Factor 8). Factors 9, 10 and 11 were not in issue.

Award No. 772
COMPANY: INLAND STEEL CO.
PLANT: INDIANA HARBOR
DISTRICT: 31
ARBITRATOR: CLARE B. MC DERMOTT
DATE OF DECISION: FEBRUARY 9, 1987
BACKGROUND

These three Notifications deal with the Company's contracting out the overhauling of segments for #2 Caster, to be done by a contractor outside the plant.

Notification No. 578 told the Union on or shortly after November 29, 1986 that the Company was considering contracting out the overhauling of one segment "O" assembly for the Slab Caster, with the work to be done outside the plant. The Notification said the work was planned to start on November 4 and be finished by November 30, and it was estimated that it would take 220 outside machinist hours and 20 rigger hours and would have occupied 240 Mechanic hours if done by employees at the plant.

Notifications 772 and 773 are identical. As of December 9, 1986 or shortly thereafter each said the Company was considering contracting out the overhauling of different segment assemblies, to be done outside the plant. The work was planned to start on December 20 and to be finished by December 27 and to occupy 240 contractor hours, and would have required 240 Mechanic hours if done by employees at the plant. Company witness Carver said the dates for beginning the work of Notifications 772 and 773 were not accurate. They had said the work was planned to start on December 20, but Carver said in fact the work of both began November 29 and the segment of Notification 772 was returned to the plant December 16 and Notification 773's segment came back December 15.

Number 2 BOF and 2 Caster Complex Section Manager of Maintenance Ostling explained that 2 BOF and 2 Caster began operations in December of 1985. It is the core steelmaking facility for the plant. Planning for those facilities had gone on from 1983. Number 2 Caster has three casting strands, one for slabs and two for blooms.

Ostling was in the maintenance planning for #2 Caster, including planning and construction of the Maintenance Aisle, which began operating in August of 1985. That is the area and equipment for repairing and rebuilding segments for #2 Caster. Ostling examined such facilities in Europe and Japan, and he is certain that his Maintenance Aisle is the finest such facility in the world, staffed with the most able employees. It is approximately 90' x 450' (well over 36,000 square feet) and has various pieces of

equipment, such as tear down and rebuild stands, alignment stands, special jigs and fixtures, alignment templates, optical equipment, special jacks, and other like equipment for rebuilding segments.
Segments are complex frameworks, with roll sets, hydraulic systems, greasing systems, and electrical drives, designed to contain molten steel as it gradually solidifies in its passage through the caster to become a slab or a bloom. There are forty-three segments in #2 Caster, sixteen in the slab strand and thirteen in each of the two bloom strands. They are not all the same but vary in kind, size, and function.
Segments are precision-engineered housings, and jigs, templates, and optical equipment are used to rebuild them to an alignment tolerance of .002". If those critical tolerances are not achieved, the Caster would suffer breakouts, that is, rupture of the solid skin, with molten steel spilling out over the segments and the balance of the machine. Even with the best effort, some breakouts are an expected occurrence in caster operation, but poor segment repairs and rebuilds increase their likelihood. Breakouts apparently occur more often at the upper part of the machine, where "O" segments are. The "O" segments are the first ones that the slab encounters as it leaves the mold and begins to solidify as it passes down through the machine. There ordinarily is more damage to segments there, since the rolls are smaller and closer together and are right under the mold. Failure to achieve precision rebuilding of segments not only contributes to breakouts but also causes poor production and damage to the machine.
In addition to the forty-three segments in the three casting strands, there are about forty segments kept as spares. There is not a full complement of spares for every segment of each strand because when there is damage to the machine it usually is in the upper parts. Thus, there are more spares kept on hand for "O" than for others. Segment "Os" are part of quick-change stands.
Spares are kept for each position in the machine but not for each segment. Each position might have two or more segments. Moreover, segments in the lower parts of the machine are changed simply for precautionary maintenance purposes.
The Maintenance Aisle was designed to do preventive maintenance and to be able to repair four segments of any kind each month, as well as to rebuild two and one-half quick-change stands each month. Ostling said the Maintenance Aisle had exceeded that by hearing time (December 29 and 30), in that the quick-change stand area had rebuilt seventy-eight such stands, or two and one-half more than the thirty planned in that one year.
Ostling said that with any new facility, especially one as unpredictable as a continuous caster, there is an abnormally high rate of maintenance calls. He was the start-up Engineer when #1 Caster was built and began operating, and there was no experience then to help judge what to expect. With the experience gained at #1 behind him, he had a better basis for estimating what start-up problems might arise with #2 Caster.
There were three major and unanticipated problems, however. One was the number of breakouts caused by improper operation of the EMS (Electronic Magnetic Stirring devices). Breakout after breakout occurred until it finally was discovered in December of 1986 that the EMS for the bloom caster was causing erratic travel at the slab caster. That was solved.
Another major problem was with the mold-hydraulic equipment, and it caused more breakouts than had been expected.
The third major problem was of slabs sticking in the strand. Finally, a change in cooling-water practices appears to have solved that.
Those three difficulties caused more breakouts than had been predicted and they overtaxed the ability of the Maintenance Aisle to keep up with the necessary rebuilding of segments.
Ostling said #2 Caster still (late December of 1986) was in what he called a "start-up mode." He expects the Shop to be in full production by June of 1987. Once production is up to expectations, Ostling said the Maintenance Aisle should be able to handle all necessary segment rebuilding, which will be reduced significantly with reduced breakouts.
Ostling said the Maintenance Aisle was designed so that it would be able to handle all necessary segment work, and it was not intended that any would have to be sent for outside rebuilding by contractors. He said no one else can do the work as well or as inexpensively as the Maintenance Aisle employees. Ostling stated, therefore, that once the caster came to full production expectations, there would be no more need to send any segments to outside contractors, except in case of a major catastrophe, when it might be necessary to get help from the Central Machine Shop or from the outside.
From his experience at #1 Caster, from studies he made, and from data gleaned from sending out a few #1 Caster segments to contractors, Ostling told his superiors in 1983 that it was far less expensive to rebuild segments in-house, up to 80 percent as expensive, with #2 Caster segments rebuilt at the Maintenance Aisle

now being about 50 percent as costly as using an outside contractor. The witness said that Westinghouse had charged $37,000 and $42,000 for each of two segments it rebuilt and that the Maintenance Aisle can do that work better and at one-half that cost.

The witness explained that in every case of a segment's having been contracted out the cause was the excessive number of breakouts that had occurred which had damaged so many segments that the Maintenance Aisle's back was against the wall. It can do only so much, and it was doing all it could. It was operating around the clock and there still were "O" segments that were needed and yet could not be rebuilt there quickly enough to keep the Caster going. Ostling would ask the Maintenance Aisle people to rebuild segments at a faster rate, and they said they were swamped and could do no more even if they had a hundred more employees. He then decided to contract out the rebuilding of these segments.

The volume of segments sent out for rebuilding by contractors seems to have been as follows, since the Shop began operations in December of 1985 (Slab Caster) and February of 1986 (Bloom Caster):

		Union Estimate of Company Employee Hours At 240 per segment
December - 1985	0	
January - 1986	0	
February - 1986	0	
March - 1986	3	720
April - 1986	0	
May - 1986	4	960
June - 1986	2	480
July - 1986	0	
August - 1986	1	240
September - 1986	2	480
October - 1986	3	720
November - 1986	11	1920
December - 1986	2	480
	Total: 28	Total: 6000 hours

These three Notifications appear to dispute the sending to a contractor of one "O" segment in November and the only two segments that were sent out in December of 1986.

The witness explained that the necessity to contract out those segments arose because, about October 14, 1986, there suddenly were six "Os" that had to be repaired. There simply was no way for the Maintenance Aisle to do that work in the time required, and it thus was decided to send two out to contractors. Then, about November 4, 1986, the Maintenance Aisle had three more "Os" it had to do right away. It simply could not do that work in the time required, even if it had four times as many employees, because the necessary facilities for doing it were fully occupied. It thus was decided to keep two of those "Os" for rebuilding at the Maintenance Aisle and to send one to an outside contractor. Ostling said all Maintenance Aisle employees were fully occupied at these times and that none were on layoff then.

Ostling said he had checked and found the number of times the Caster was without a quick-change spare was twenty days of the year 1986. If no spares were available when needed, the Shop would be down for ten days. Thus, it is absolutely essential to have such spares available in order to avoid downtime on this equipment that is basic to operation of the whole plant.

The outside contractor most often used has been Westinghouse, because it has had fifteen or twenty years' experience in rebuilding segments, gained from doing that for other steel companies all over the country. It has ability to do that and also the necessary equipment to handle it.

Mechanics at the Maintenance Aisle were trained in two steps, with the first being formal, classroom instruction with manuals on quick-change and segment work. After that they were brought to the Maintenance Aisle where, under instruction of a foreman, they began to rebuild segments and spares for hands-on training. That covered about 25 percent of the available employees. The plan is that the group of Mechanical employees will change every six months so that ultimately all will gain hands-on training and ability to do this work. The Maintenance Aisle has two different work locations, with a supervisor in each. At what he called normal pace, Ostling said about twenty to twenty-four Mechanics worked at the Maintenance Aisle, five days a week. The abnormal circumstances required that that be increased,

however, and about thirty employees were in the Maintenance Aisle Maintenance Gang, and great use was made of overtime to turn out additional work. The Shop has worked from zero to 1700 overtime hours in a week, and about 60 percent of that overtime was performed by Maintenance Aisle Mechanics. There are 163 maintenance employees in the Shop, and 114 are Mechanics or Mechanic Welders, and about 35 percent of that force (approximately forty employees) is trained for Maintenance Aisle work, and the balance is on other BOF and Caster maintenance work.

Ostling said the rule of thumb applied at the Maintenance Aisle is that, for a task requiring one employee, he must be experienced in Maintenance Aisle work; if two employees are required, only one need be so trained; if three or more are needed, two must be experienced. The Shop's goal is to have all 160 some maintenance employees trained in Maintenance Aisle work, and Ostling says the program now in effect will accomplish that. At another point, Ostling said he had fifty Mechanics trained on segment work. The Union then applied his rule of thumb that said one trained employee was needed to work with one not trained, and it got 100 employees who could work on rebuilding segments. Ostling denied that conclusion, saying that, no matter what number of employees he had, the Maintenance Aisle equipment could not support any more such work. In any event, he said he had only about thirty Mechanics fully trained on segments. Ostling did agree, however, that counting all possible sources, he could put forty to forty-five really qualified employees on segments and that putting one qualified with one employee not so qualified, would produce eighty or ninety Mechanics on segment work. Ostling agreed that was accurate, counting only the number of employees and hours.

Ostling said the contractors can do the segment-rebuilding work almost within the required time. When that work has been sent out, the Company has told the contractor the segments were needed right away, but it has taken them from four to six working days to do it, going around the clock.

At the Union's questioning, the witness said he had sent two peak-demand segments to the Company Machine Shop. The first situation occurred some months ago, and it took the Machine Shop ninety days to get the segment back to the Caster. The second and more recent event took six weeks, and not all required work had been done.

Ostling explained that, in order to free additional Maintenance Aisle Mechanics for segment work, he has sent to the Machine Shop some work of rebuilding roll sections that the Maintenance Aisle otherwise would have to do. The Machine Shop has done the rebuilding of rolls satisfactorily, but not the segment work. It does not have the equipment that the Maintenance Aisle has to do that, and some such equipment is needed to do segment work properly. Some of that special Maintenance Aisle equipment was sent to the Machine Shop when it was asked to do segment work.

Westinghouse has much of the equipment necessary for rebuilding segments, but apparently not everything required, for the Company has sent alignment templates to it for various segments. Ostling said he was not familiar with the basic wage rate for Westinghouse employees, who did the segment work.

Ostling agreed that in equalizing overtime he has taken some Mechanics from 2 BOF not trained on segment work, and put them in the Maintenance Aisle on a regular basis, practically every week, varying by the volume of work demanded by conditions.

Referring to Ostling's statement that he anticipated that by June of 1987 there would be no need to contract out any segments, the Union noted that in July of 1986, the Company had entered into two contracts with Westinghouse for blanket orders for segment rebuilds extending over a two-year period. The Union wondered, in light of those two blanket orders, how Ostling could say that no more would be contracted out as of June of 1987. Ostling said the blanket orders were meant only for use in cases of emergencies, as a "cover your ass" thing.

The Union argued that if the blanket orders to Westinghouse were to cover only emergencies, and these Notifications dealt with segments contracted out in the operative period of those blanket orders, then it would seem to follow that the segments covered by these Notifications must not have arisen from emergency conditions.

Some segments, perhaps up to sixteen, have been sent out under the blanket orders. Seemingly, nine or eleven of them had been damaged by breakouts. The blanket purchase orders with Westinghouse do not bind the Company to assign any volume of segment work to that firm.

As to Union suggestions that Mechanics could have been borrowed from other operations and recalled from layoff to help with this segment work at the Maintenance Aisle, Ostling answered that there still was not an adequate supply of the necessary facilities on and with which to do any more segment work, even if there were more employees.

Ostling said that Westinghouse has much more space for doing this segment work than does the Central Machine Shop and it has also a full machine shop and facilities (stands) like those at the Maintenance Aisle.
Ostling could not say that every time a segment was sent out to a contractor in 1986, every repair and rebuild stand for that kind and size of segment in the Maintenance Aisle had been full, but he believed that was almost always true, so that the problem seems to have been more one of insufficient facilities at those times, rather than lack of the necessary number of employees.
The parties then agreed that the Field Forces Machine Shop could not do this segment work because they weigh from forty to seventy tons, and the cranes there cannot lift such weight.
Ostling insisted that a breakout was a "disaster," within his statement that segments were and would be sent out only in a catastrophe or a disaster, and that getting behind in segment rebuilds also was a "catastrophe," which would justify sending segments out for rebuilding.
Ostling said that past experience showed that normally one and one-half segments would have to be repaired per month, resulting from breakouts, and the Maintenance Aisle was prepared to rebuild two and one-half segments per month and had done even more than that.
The Company insists that it would not be sensible to use some now unused space and set up additional equipment in order to rebuild more segments in-house now because it was sure that now or very soon it would be able to rebuild all segments necessary within the existing space and, therefore, more space and new equipment would be wasted. The history of events was different only because of the three major and unexpected start-up problems, which now are solved. Moreover, it was estimated that building such a new "Mini" Maintenance Aisle would take six months, and by then there would be no need for it.
Number 2 BOF Maintenance Planner Carver is responsible for operation of the Maintenance Aisle. He said that at the time of these Notifications, rebuilding of two segments had been contracted out to Westinghouse. Unusual circumstances required that more be repaired. Three or four segments were being rebuilt in the Maintenance Aisle, one at the Central Machine Shop, and two by Westinghouse. Carver asked Westinghouse if it could begin right away to rebuild additional segments, and it said it could not and that there would be a one-week delay before it could start on them. The Caster could not wait, and Carver therefore went looking for another contractor. He found Industrial Machine and Welding Company and sent out two segments for rebuilding by it. Carver learned, however, that the turn-around time by that contractor was not satisfactory, and no more segments were contracted out to it.
Carver said that assigning additional Mechanics to segment work at the Maintenance Aisle would do no good when, as in most such situations, all available equipment that holds segments and parts as they are torn down and rebuilt are fully utilized and there is no more room for any other segments, even if there were many additional Mechanics.
Carver said the contractor took over two weeks to rebuild segments of Notifications 772 and 773. He would have preferred one week. The Maintenance Aisle can overhaul a slab caster segment in about ten turns, but contractors take longer.
The parties became involved in an effort to clarify what segment work requires a "precision" stand, with jigs, templates, and perhaps optical equipment to ensure proper alignment, and what different work might require a "stand" simply as a device to hold a segment or a part of one while it is torn down, repaired, and rebuilt, but is not a "precision" stand. The Union insisted the latter "stand" could be duplicated at the Machine Shop by machining tables and even by wooden scaffolding there, or at the Maintenance Aisle, or any other vacant space. Carver said in nearly every situation of an "O's" having been sent out to a contractor, the stand for performing "O" segment work was fully utilized. He said that was true also of the majority of the segment rebuilding that was sent out. Carver said the bulk of hours were spent on precision work.
Union witness Pollard, then a Mechanic at the Maintenance Aisle, works on "O" segments. He says the stripping of an "O" from the quick-change stand does not require a stand of any special kind and that it has been done on the floor in the center of the aisle. Changing of rolls similarly needs no special stand. Pollard said the capacity of the Maintenance Aisle could be increased by better use of vacant stands. For example, after being aligned, the equipment could be set on the floor and the maintenance stand thus freed could be used for stripping another item. He said that is not always done and that "O" "combies" (combinations) have been sent out to contractors when a stand could have been made available in that fashion. Pollard said there were up to seventy-five employees trained to work on segments. The witness agreed, however, that, while there are two "O" assembly stands, one a "combi" and one for a slab segment, they are not

interchangeable, so that it would be no help if the operation were short on slab "Os," to have an empty "combi" precision stand, or vice versa.
Carver said the Machine Shop could not rebuild "O" segments at these times because it did not have the necessary facilities or employees to do the work in time.
Union witness Marks, a Mill Mechanic, who worked at "segment rebuilding" but was then assigned as a Roll Tracker, said he had no formal or hands-on training and learned the work simply by doing it for one to two months, by which time he could repair segments. He said other employees had done the same.
Marks said "combies" could be broken down so that two sections could be worked on at once, which was not being done. He stated that rolls have been removed and molten steel cleaned off, while the equipment just rested on the floor. He concluded, therefore, that if the plant (Machine Shop) had sufficient space, cranes, torches, portable jigs, and special jacks, it could do all but the aligning work. He said the Company had provided all that special equipment, plus templates, to both Westinghouse and Industrial Machine and Welding. The witness agreed that roll alignment can be done only on a precision stand.
Union witness Smith, a Machinist at Plant 1 Machine Shop, had worked at Westinghouse as a Machinist while on layoff from Inland. He worked on segments sent there by Inland and by LTV. He skincut and remachined rolls. He said he saw no precision stands at Westinghouse or other special equipment. Smith said the wage rate for employees stripping segments at Westinghouse was $4.75 per hour; other related work was paid at $6.00 per hour; and he received $11.00 per hour there as a machinist. As a Machinist at Inland, he receives $15.00 per hour, plus incentive.
Carver was recalled and agreed that work usually is done at only one of the "O" assembly areas, one a "combi O," and one a slab-caster "O," but occasionally both have been used at once. He said there were only three or four times when "Os" were contracted out when the "combi O" stand was not being utilized. They were times when the Maintenance Aisle was having great difficulties keeping up with slab-caster work, caused by an abnormal number of breakouts. That was in the period from October through December of 1986, and now has been ironed out. Carver explained that "combies" were contracted out on occasions even though its stand was not full because the large bulge of slab-caster work was occupying all trained employees and, if maintenance employees had been pulled off other Caster work to do the "combi" work, there would have been insufficient employees to handle the ordinary, preventive maintenance work on the Caster.
Carver said that six "combi Os" were contracted out from October into December, and he agreed that the "combi" stand had not been fully utilized over those three months. Carver conceded also that some Maintenance Aisle work could be done with the equipment on the floor but said that was not true of precision work.
Carver said that the bottleneck in those months was the necessity to overhaul an unusual number of "Os," which made it impossible to supply the Caster adequately by Maintenance Aisle efforts, alone. He agreed, therefore, that it would be a great help if there were an alternative way to do the "O" work in the plant. He said aside from the two occasions on which he sent segments to the Machine Shop, no effort had been made, for example, to have it help out then by doing some of these segments, with the tools and manuals supplied by the Maintenance Aisle.
Westinghouse apparently uses high-precision, portable optical equipment for its rebuilding work, and that does not require a precision stand. Westinghouse began to fabricate special stands only after it got the two blanket orders in July of 1986.
The Union said large machining tables at the Machine Shop can be used to do precision alignment, to a tolerance of .004 inches. Carver said the Machine Shop used them but that those who did that work were not Machinists.
Carver said the equipment used by industrial Machine and Welding was not up to that of the Maintenance Aisle. It had no repair stands but used a large (6") bar mill, with a jig it fabricated and used Vernier readings on the bar mill. The witness agreed he found no fault with the quality of the work done by Industrial Machine and Welding, but only with the time it took. Inland sent a template to that contractor. Inland sometimes supervised the work at Industrial Machine and Welding, by way of Carver and another supervisor, as it did also for the Central Machine Shop. Carver said that, if the Machine Shop had a satisfactory bar mill and a template, it could do this work, if given enough time.
Carver was certain, however, that the Machine Shop is not set up to do this work, saying it normally is congested. It services the entire plant and thus is so busy that it has a ninety-day delivery date for its work. Carver said Westinghouse has better equipment for this work than the Machine Shop.

Union witness Pollard was recalled, and he said he was sent to Westinghouse in April or May of 1986 to check on roll-gap alignment on an "O" in order to see if Westinghouse were doing that correctly, and he saw two "Os" on wooden blocks on the floor and no elaborate precision stands.
The Company replied that these Notifications deal with work sent out in November and December, that the blanket orders were not effective until July, and that the new Agreement language did not become effective until August, so that whatever may have been done at Westinghouse in April or May was not relevant.
Plant 1 Machine Shop Machinist Steagall said that the Machine Shop had two machines (13-A and 16-B), a 6" G and L and a 6" Gray. He said the Gray machine had run out of work in November of 1986. Steagall said also that the four square tables (20' x 20') at the Machine Shop could be used for this work, with shims, optical equipment, and templates. With that equipment and sufficient employees, the Machine Shop could do these segments.
Senior No. 1 Machine Shop Planner Shaw said that both machines were utilized at these times, but he could not insist that they were occupied for three turns a day.
The Company argues that all evidence and arguments show that there would be no adverse impact on the bargaining unit from these contracting-out decisions.
As to factor 2, it argues that the work was of short duration and that it could not have hired and trained new employees in the short time it took to do it. Moreover, the Caster was still in its "start-up" status but now can handle a normal load.
The Company agrees that Factor 3 of the reasonableness standards is a more telling one. It says the compelling testimony of Company witnesses Ostling and Carver showed that more often than not the problem was not one of having a sufficient number of employees but was of having adequate facilities and that sometimes it was both. It says it was not reasonable to recall and train employees for a short-time project, in which the work would be over before their training.
As to factor 4, the Company says the matter is not in issue here as to slab-caster "Os," since Carver's testimony said that stand was fully occupied, with qualified employees working on an unusual bulge of slab "Os," so that work at that stand cannot be in dispute. Thus, the "combi" stand was not always fully occupied in the October-December period.
Management says that no supervisors were available, including hourly supervisors.
As to the testimonial dispute between Pollard and Carver regarding availability of "combi" stands, Pollard said they were open at times from March to December, while Carver said they were available at some times only from October to December, and the Company argues that Carver was in better position to be aware of such matters and of the utilization of equipment there. As to availability of open "combi" stands, the Company argues that, even though Carver said there were times when both stands were not used, it contends that the Arbitrator should credit Carver on this point as to the other times. Even so, however, it urges that there has been no showing of a consistent need for a full utilization of "combi" stands over this period, since there were months when no "combies" were sent out.
The Union says that, within one day of notice to it and after the work had been done, it came up with three alternatives to contracting out: (1) use of bar mills in the Machine Shop; (2) use of the square tables there; and (3) use of portable optical equipment. It is sure that, if the Company had given it more reasonable notice in good faith, it could have suggested even more alternatives.
The Union asks, if Management sends some segments to outside contractors when their charges are twice those of Company costs, what would it do if Westinghouse were to lower its charges.
The Company argues that, since this new contracting out language was written and proposed by the Union, it should be construed against it in situations where there is an ambiguity. The Union argues that Appendix C-2 prohibits reference to the parties' bargaining proposals.
Following the hearing and arguments of these Notifications on December 29 and 30, the Arbitrator visited the Maintenance Aisle and the Central Machine Shop with the parties' representatives and saw the relevant areas and equipment.
The Union says the Company is contending here that it had to send these segments out for work by contractors because there was an "emergency." If that were true, the Union says it would not be here. But it feels very unsafe with the Company's definition of an emergency, which it says apparently occurs when Management falls behind in its segment-maintenance work. The Union suggests that would mean Management could erode the bargaining unit by always being behind on segment work, and then it could contract out the overflow. That is characterized as the Company saying that its long-range plan is to have only a certain level of maintenance employees on the force and to be satisfied with that, even if that force cannot keep up with all necessary segment work, since it then will send the balance out to contractors.

The Union argues that the Machine Shop could do this segment work within one week if it were moved ahead of other Machine Shop commitments.
The Company replies that the Union's idea of an emergency would cover only an earthquake or an explosion that might have wiped out the Caster. That is said to be too extreme. The Company insists a true emergency arises when, in spite of its reasonable planning, there are no spares and Supervision is trying to avoid shutdown of a major facility which is basic to operation of the whole plant.
The Union stipulated that it was not seeking a remedy here under Subsection E for untimely notices.
The parties stipulated, as they did in the two other Awards (770 and 771), that, since this work already had been done by hearing time or earlier, there was no need to decide these disputes within the forty-eight-hour limit of -G-4.
FINDINGS
As maintenance work contracted out to be performed outside the plant, the work of these Notifications falls within Subsection B-2-a of Section 3 of Article 2. It thus differs from the work in Inland Awards No. 770 and 771, whose work was contracted out for performance inside the plant.
Applicable provisions of Subsections B-2-a and -C of the new language of the 1986 Agreement read as follows:
"B. Exceptions
"...
"2. Work Outside the Plant
"a. Should the Company contend that maintenance or repair work to be performed outside the plant or work associated with the fabricating of goods, materials, or equipment purchased or leased from a vendor or supplier should be excepted from the prohibitions of this Section, the Company must demonstrate that it is more reasonable (within the meaning of paragraph C below) for the Company to contract for such work (including the purchase or lease of the item) than to use its own employees to perform the work or to fabricate the item.
"C. Reasonableness
In determining whether it is more reasonable for the Company to contract out work than use its own employees, the following factors shall be considered.
"1. Whether the bargaining unit will be adversely impacted.
"2. The necessity for hiring new employees shall not be deemed a negative factor except for work of a temporary nature.
"3. Desirability of recalling employees on layoff.
"4. Availability of qualified employees (whether active or on layoff) for a duration long enough to complete the work.
"5. Availability of adequate qualified supervision.
"6. Availability of required equipment either on hand or by lease or purchase, provided that either the capital outlay for the purchase of such equipment, or the expense of leasing such equipment, is not an unreasonable expenditure in all the circumstances at the time the proposed decision is made.
"A. "7. The expected duration of the work and the time constraints associated with the work.
"8. Whether the decision to contract out the work is made to avoid any obligation under the Collective Bargaining Agreement or benefits agreements associated therewith.
"9. Whether the work is covered by a warranty necessary to protect the Company's investment. For purposes of this subparagraph, warranties are intended to include work performed for the limited time necessary to make effective the following seller guarantees:
a. Manufacturer guarantees that new or rehabilitated equipment or systems are free of errors in quality, workmanship, or design.
b. Manufacturer guarantees that new or rehabilitated equipment or systems will perform at stated levels of performance and/or efficiency subsequent to installation.
Warranties are commitments associated with a particular product or service in order to assure that seller representations will be honored at no additional cost to the Company. Long-term service contracts are not warranties for the purposes of this subparagraph.
"10. In the case of work associated with leased equipment, whether such equipment is available without a commitment to use the employees of outside contractors or lessors for its operation and maintenance.
"11. Whether, in connection with the subject work or generally, the Local Union is willing to waive or has waived restrictive working conditions, practices, or jurisdictional rules (all within the meaning of `local working conditions' and the authority provided by this Agreement)."

This work comes within -B-2-a, and it sends us to -C. It is necessary then to proceed to detailed consideration of each of the relevant factors in Subsection -C, in order to determine if Management has sustained its burden of proving that sending this work to contractors for performance outside the plant was more reasonable than using its own employees. In doing so it is necessary to give appropriate recognition to the fact that the "more reasonable" analysis is being conducted under the "guiding principle" that work capable of being performed by bargaining unit employees shall be performed by them and also under the direction of the next sentence that the Company will not contract out any work for performance inside or outside the plant unless it can show that "such work" meets one of the exceptions that follow in -B. Moreover, the "more reasonable" analysis must be carried on with clear realization also that it will be the permission or denial as of work to `...be excepted from the prohibitions of this Section...," referring to Section 3.

Perhaps some additional general comments may be in order. There is no suggestion in -C that all eleven factors are of equal weight nor, on the other hand, is it said that some should be considered more or less significant than others. No such weighting is given in the abstract, nor is it stated that the eleven factors are to be seen as if they were times at bat, so that a batting average would be drawn up and, if the Company had hit better than .500, the grievance automatically would be denied as a matter of mathematics. Indeed, it may be in a given set of circumstances that a few factors would bear so strongly against the decision to contract out that, although found to be in the minority column, they would override a majority of clearly weaker, negative factors. Moreover, every case does not present all eleven factors. Some simply are not applicable to a given fact setting, as is true here of factors 9, 10, and 11, and they thus remain inert as to the contracting out in dispute. It is reasonably clear, therefore, that this "more reasonable" determination is to be made more as a matter of art than of accounting. Simply pitting a count of some factors against others in a bare and mechanical sense would not always be faithful to the clear demands of -C. It is necessary to probe, prod, knead, jog, and nudge the entire record in light of all relevant factors in order to come to an overall judgment on balance as to whether Management has proved contracting out to be the more reasonable course, all things considered.

The first factor listed is whether the bargaining unit will be adversely impacted by the contracting out.

The Company sees this as so clear as to warrant no discussion. It says there was no adverse impact.

The Union disagrees, arguing that, if there were employees in position to be recalled, as there were, and if the Company did not recall them, then they and thus the bargaining unit were adversely affected.

These decisions to contract out did not reduce the size or scope of work of the bargaining unit and, therefore, to that extent, it was not adversely impacted.

There may be both a present and a potential future impact on the bargaining unit, however, from any given instance of contracting out, and absence of a reduction of the bargaining unit might not be the end of the matter. These contracting-out occurrences might make it easier for Management to contract out segments in certain circumstances in the future, and that could be considered as adversely affecting the bargaining unit. Nevertheless, the present effect, or lack of it, must be seen as more important, and here no diminution of the bargaining unit was caused by these contractings out.

The Union says, however, that there were laid-off Mechanics from the shutdown #3 Open Hearth that could have been recalled for this work, but were not, thus adversely impacting at least those laid-off employees. That argument seems misplaced, however, for factor 3 deals with the desirability of recalling laid-off employees and, thus, that element must not have been meant for consideration under factor 1 as a potentially adverse impact on the bargaining unit. Accordingly, the recall arguments must be left for consideration under factor 3 and, without them, it could not be found on this record that these contractings out caused any adverse impact on the bargaining unit.

Factor 2 says that necessity for hiring new employees shall not be deemed a negative factor except for work of a temporary nature. That exception makes this a negative factor, in the sense that it is against doing the work in-house. This segment work was of short duration, and new employees simply could not have been hired and trained in time to do it. The work would have been over before they were nearly trained. Moreover, as to some of the work contracted out in October and November, the number of employees was not the problem. It was more the availability of equipment on which to do the work, so that, even many more employees would not have helped on that work. Factor 2 thus was a negative factor.

Factor 3 deals with desirability of recalling employees from layoff. This factor requires some analysis and discussion, since there were Mechanics on layoff, apparently from the shutdown #3 Open Hearth.

The Company argues that the same logic that concluded that hiring new employees would be a negative factor must lead to the same conclusion as to recalling employees. But that does not necessarily follow,

since laid-off Mechanics, even from a different operation, presumably would have had basic and perhaps more refined mechanical skills, so that necessity to train would not have been so troublesome as to some such recalled employees, and little or no training might have been needed as to others.
It nevertheless remains true that any such employees who would have been recalled would barely have finished even a severely abbreviated orientation or familiarization program at the Maintenance Aisle before the work would have been over. The training, orientation, or familiarization time probably would have equaled or even exceeded the duration of the work. Moreover, as to some of this work, insufficient employees was not the problem. Insufficient equipment was, so that more employees would not have helped.
This is a closer question but, even in the fact of the "guiding principle" and the prohibition sentence of -A and even in light of the burden that the Company must bear here, it must be found on all the evidence that it was not desirable to recall laid-off employees. Thus, this was a negative factor.
Factor 4--availability of qualified employees (active or on layoff) for a duration long enough to complete the work--at least overlaps some of the considerations raised by other factors. For example, employees on layoff is the entire concept of factor 3, and it was shown, above, that that was a negative factor, in the circumstances. In addition, the duration of the work is an essential consideration of factor 7, as well. Accordingly, availability of active employees seems to be a primary element in factor 4. This would apply, in any event, only to those items of work contracted out on which having more qualified employees would have helped keep the work in the plant. That deals with "combi" work, since Company witness Carver agreed they were not fully utilized in October and November.
Discussion of this factor brings into play all the testimony, much of it conflicting, about how many Mechanics in the Shop already were trained, how many were sufficiently trained who were on other work at #2 BOF and the Caster, the Company's rule of thumb requiring one trained employee to work with an untrained one, which would double the number who could work on any project and which might bring the total number of "qualified" employees to approximately eighty or ninety. Also related to this factor is all evidence, arguments, and counter-arguments about use of the Central Machine Shop, both employees and equipment. (Use of the Field Services's Machine Shop admittedly was not a consideration, since its cranes cannot lift these segments.)
There was some testimonial conflict between what Carver said and what Union witnesses Pollard and Marks said about utilization of stands. Each party argued that its people were in better position accurately to know what the precise situation was as to utilization of "combi" stands over the long run or in the November and December period more directly relevant here. It really is not necessary to pursue those differences to final and detailed conclusions, however, for even Carver agreed there were times from October into December when empty "combi" stands were available. Thus, if that had been watched carefully and if more employees had been assigned, one trained and one not fully trained, some of this work might have been done in-house.
If actual training had been necessary, however, that conclusion would have to go the other way, for the work would have been finished in about ten turns, and that would be over before the untrained employees could be ready. Moreover, the untrained employees that the Union says could have been brought to Maintenance Aisle segment work in order to supplement the force by working with a trained Mechanic, were not idle. They were doing other 2 BOF or Caster work and, if taken off it to help temporarily at the Maintenance Aisle, the other work would have suffered and perhaps some of it would have had to be contracted out. That would not help the overall situation.
The Union argues also that some Machinists from the Central Machine Shop could have been brought to the Maintenance Aisle to do this segment work. That, too, however, would have hurt the progress of the work they were doing at the Machine Shop. Some training would have been necessary there, in addition.
These many individual and detailed arguments, however, must be let out of their separate cages and brought into the center ring. That is, the Union ultimately charges that the Company has determined upon a set level of maintenance employees, who of course can do only so much Maintenance Aisle segment work, and that it is prepared to erode the bargaining unit by doing only that level of work and by contracting out all else.
That is too simplistic, however, when considered in light of all evidence here. That is, substantial planning, based in large part upon experience gained from #1 Caster, went into the design and volume of both employees and equipment at the Maintenance Aisle. The average prediction from that data of the number of breakouts was considered, and the Maintenance Aisle was set up to handle the reasonably anticipated level of segment work, about one and one-half per month, and then that was double. It must be concluded that

the geography of the Aisle, volume of its equipment, and the size of its Mechanic force were not set at a level which properly would warrant the Union's general charge. On the contrary, the Aisle was established to deal with a level of segment work that appeared satisfactory at the time, and then some. But it has not done only that volume of the work, or one and one-half per month. It was set up to do twice as much, and it has done even more than that, and it got into trouble only because three specific problems caused a volume of breakouts and resulting segment repair and rebuild work that at times was substantially more than double what had been anticipated.

The Company's training program seems to have produced a sufficient number of Mechanics trained on segments to handle the volume of work reasonably to be anticipated. Surely it could not be concluded that it was set at a level which always or ordinarily would require contracting out of some segments. Moreover, it could not be expected in the normal course of events that this Maintenance Aisle force would be staffed at such a gross level as to be adequate for performance in-house of all peak bulks of unanticipated segment work. Accordingly, what emerges from all this is that, since segments were contracted out for rebuilding outside the plant, the Union focuses on that and insists sufficient employees could have been pulled off other work that they were doing in order to avoid necessity for contracting out this work and, on that point, it seems to minimize the difficulties or even the necessity of training or orienting such employees for work of only about ten turns' duration. That is not supported by this record. Hence, although this is a nice question, factor 4 was a negative factor.

Factor 5 deals with availability of qualified supervision. The Company's closing argument said none were available, although some hourly foremen were becoming qualified. Management noted that the Union had identified no one who could have supervised more segment work. It argued also that, part of the problem as to some periods of time was that there allegedly were not enough trained employees. Thus, it would have done no good to make an hourly supervisor out of a qualified employee since that would have left one fewer qualified employee, which would not have helped this problem.

The basic difficulty on this factor is, however, that no evidence was introduced to support a finding one way or the other on the availability of qualified supervisors and, in light of the Company's burden here, that means necessarily that factor 5 was not a negative one.

Factor 6 relates to the availability of required equipment either on hand or by lease or purchase, provided that the capital outlay is not unreasonable in the circumstances prevailing at decision time.

Unavailability of necessary equipment was asserted by the Company as to some times and items of work contracted out and as to others the problem was said to be insufficient number of qualified employees. Thus, this and factor 4 are closely related, so that much that was said as to factor 4 would apply here, too. It could not be found that the Maintenance Aisle was inadequately furnished with necessary equipment for the volume of segment work reasonably to be anticipated, and it need not be equipped so as to be able to handle all the peak work that might ever be required at one time in unusual circumstances. In October a sudden need had erupted to rebuild six "Os" at once, and that simply could not be done. Thus, two were sent out then. In November three "Os" had to be rebuilt at one time, and that could not be done, either. Thus, two were rebuilt in-house, and one was sent out.

It would not do to lose sight of the fact that some rather fine alignment work is required here, calling for trained employees on special equipment. Thus, it is not always persuasive to say that bar mills, square tables, or both, in the Machine Shop, could have been used, or that portable optical equipment would do just as well. If this segment work were of a kind taking weeks and weeks or months to perform, the situation might be different. But, here, having experienced one ninety-day turn-around from the Machine Shop and one of six weeks, one experience with equipment at Industrial Machine and Welding that was satisfactory as to quality but took longer than desired, it would not be reasonable to expect Supervision, when faced with immediate necessity to rebuild six, three, and like numbers of segments at once to begin experimenting with alternatives already used once or twice with unsatisfactory results, for work that the Maintenance Aisle does within ten turns and contractors within a week or two. The problem being faced was not an abstract theory that admitted of leisurely investigation, discussion, and consideration of uncertain alternatives. It was a fact: There was more work than the trained employees and necessary equipment could do at once. Since the volume of employees and equipment was not negligently set at an unreasonably low level, no fault could be found in Management's sending this work out, and that seems especially persuasive in light of Ostling's rather convincing testimony that the unanticipated peaks of segment work were not likely to recur.

This brings us to the parties' "emergency" arguments. The word does not appear in the factors of -C. Perhaps it was meant to emerge from the totality of factors. The Union agreed, however, that, if there had

been a real emergency, it would not be here challenging the sending out of the segments. Thus, it would seem clear enough in these disputes that, whatever -C does or does not say expressly, generally emergent conditions could warrant the contracting out of this work, but no such definitive finding need be made here.
Each party engages in some rhetorical flourishes in characterizing the other's idea of an emergency. The Company says the Union would recognize only something like an earthquake or an explosion that had destroyed the Shop. It says that is unreasonably extreme.
The Union insists that simply running out of spare segments cannot be viewed as an emergency justifying sending segments outside for work by contractors. It claims that in the very nature of things it is Management's responsibility to have a sufficient force of trained employees and essential equipment on hand to perform the work required.
That could be adopted as to reasonably anticipated levels of work, but here there was much, much more that had to be done at once in order to prevent shutdown of the core steelmaking facility in the plant. The concurrence of all those circumstances, without fault on Management's part, would be sufficient to justify treating this as an emergency, and to warrant contracting out these segments, if such a conclusion be necessary.
The essence of factor 7 confirms that conclusion. This was not long-lasting work. It was work of short duration and it had tight time constraints. Thus, many of the alternatives as to employees and equipment suggested by the Union simply were not appropriate. Factor 7 was a negative factor.
As to Factor 8, the Union argued that the decision disputed here was made to avoid the craft-pay guarantee of Appendix D, and its witness Smith said that wage rates at Westinghouse were lower than the standard hourly base rate for Mechanic at Inland.
But that testimony, even if taken at face value, is only a part of what would have to be brought out in order to render factor 8 a nonnegative factor. It was not especially reliable hearsay, but let it be accepted as reasonably accurate. There still was nothing to show what number of employees Westinghouse charged at those lower rates. Moreover, Ostling made it too clear for reasonable argument to the contrary that paying attention to the signally important matter of total costs, the Maintenance Aisle could and did rebuild segments at about one-half or better of contractor costs. With that comparison of total costs, it is not particularly helpful to become distracted by one possibly lower individual element of a higher grand total.
Factors 9, 10, and 11 are not in issue.
All in all, therefore, assessing the impression arising from consideration of all eight pertinent factors, only factors 4 and 6 are even close, and the general conclusion must be that the Company has demonstrated that contracting out the segments of these Notifications was more reasonable than using its own employees, and the grievance challenging Notification Nos. 578, 772, and 773 will be denied.
AWARD
The grievance is denied.