Japan Credit Rating Agency, Ltd. (JCR) announces the following credit rating.

## JCR's Rating Review of Blast Furnace Steel Manufacturers

| Issuer | Code | Long-Term Issuer Rating |  | Outlook |
| :--- | :---: | :--- | :---: | :---: |
| NIPPON STEEL CORPORATION | 5401 | <Rating Change> | from AA- to AA | Stable |
| JFE Holdings, Inc. | 5411 | <Affirmation> | AA- | Stable |
| JFE Steel Corporation | - | <Affirmation> | AA- | Stable |
| Kobe Steel, Ltd. | 5406 | <Rating Change> | from A- to A | Stable |


| Issuer | Code | Short-Term Issuer Rating/CP |  |
| :--- | :---: | :--- | :---: |
| NIPPON STEEL CORPORATION | 5401 | <Affirmation> | $\mathrm{J}-1+$ |
| JFE Holdings, Inc. | 5411 | <Affirmation> | $\mathrm{J}-1+$ |
| Kobe Steel, Ltd. | 5406 | <Affirmation> | $\mathrm{J}-1$ |

(See page 4 and beyond for details about ratings on individual bonds, etc.)

## Rating Viewpoints

(1) JCR has reviewed the ratings of blast furnace companies and upgraded the long-term issuer ratings of NIPPON STEEL CORPORATION and Kobe Steel, Ltd. by one notch to "AA" and "A," respectively, while affirming the ratings of two JFE Group companies (JFE Holdings, Inc. and JFE Steel Corporation). The outlook on the ratings is Stable for all companies.
(2) The business environment in the steel industry is difficult, with domestic crude steel production remaining at a lower level than in the past. However, blast furnace companies have been making strong efforts to cut costs and revise selling prices, and their basic earnings power is improving. As companies continue to reduce production capacity and lower their break-even points, probability of securing a certain level of profit in the future is increasing. Financials are also generally improving due partly to the accumulation of equity capital through profits. JCR has upgraded the rating on NIPPON STEEL, because its real earnings power, excluding inventory valuation differences and other factors, has improved markedly and is expected to remain strong in the future. JCR upgraded the Kobe Steel's rating based on the strengthened and stabilized earnings power thanks to contribution from its electric power business, which has reached full capacity, and structural reforms in other businesses.
(3) Domestic and Chinese demands for steel products are sluggish. The pace of recovery in domestic demand, which shrank due to the COVID-19 shock, has been slow. This is because demand for steel products for the automobile industry is increasing due to an increase in production of finished vehicles, but demand for steel products for civil engineering and construction is weakening. In China, crude steel production remains high, while demand is weakening amid growing uncertainty in the real estate sector, and the supply-demand balance is deteriorating. As a result, markets in Southeast Asia, the main export destination for blast furnace companies, have been sluggish, and profitability of exports of general-purpose products from Japan remains low.
(4) Blast furnace companies are making progress in their efforts to strengthen their profit structure. In recent years, companies have been reducing production capacity, lowering fixed costs and tightening domestic supply-demand balance for steel products. At the same time, they have actively promoted
price optimization in the tied transactions. These efforts have lowered the break-even point, making it easier to secure profits even if sales volume does not increase. Efforts to increase the sales ratio of high value-added products such as electromagnetic steel sheets and ultra-high-tensile strength steel sheets are also expected to improve profitability. On the other hand, importance of business development in countries such as India, where high growth is expected in the medium to long term, is increasing in contrast to Japan with low growth. JCR is paying close attention to each company's overseas business expansion measures and their contribution to earnings.
(5) With regard to carbon neutrality, JCR will pay attention to whether the companies can stay ahead of the competition in technological development with overseas manufacturers. Blast furnace companies are promoting technological development in cooperation with each other while also utilizing public support. While immediate R\&D and capital expenditures are not expected to be large, there is a possibility of large-scale investments over the long term, and attention should be paid to an increase in financial burden in the future. However, it is highly likely that decisions on large-scale investments will be made in light of the progress in designing a system that will enable society as a whole to bear the cost of decarbonization.
(6) The financial health of each company has been improving since fiscal year ended March 2021 (FY 2020). In addition to recovery of business performance, cash measures such as asset sales and use of hybrid financing have also contributed to the improvement. It is unlikely that the companies' amount of capital investments will significantly decrease, as they are increasing production of high valueadded products and need to respond to the aging of their facilities. However, as business performance improves, a significant increase in interest-bearing debt can be avoided, and it is highly probable that the financial structure will continue to improve by the accumulation of equity capital through profits. JCR is focusing on whether the companies can strengthen their financial base in anticipation of fullscale investments for carbon neutrality.

## Rationale

Issuer: NIPPON STEEL CORPORATION

```
<Rating Change>
    Long-term Issuer Rating: from AA- to AA
    Outlook:
    Bonds:
    Bonds (Dated subordinated bonds):
    Subordinated Loan:
    Shelf Registration:
<Affirmation>
    CP: J-1+
```

(1) NIPPON STEEL CORPORATION (the "Company") has a strong business base, including high technological capabilities, sales force, and excellent customer base. It has a broad range of highly competitive products. As Japan's largest steelmaker, the Company is the leader in the Japanese steel industry and has one of the world's highest production capacities. It is strengthening its overseas business with the long-term goal of achieving a global crude steel production capacity of 100 million tons and consolidated business profit of 1 trillion yen. It has established integrated production systems in India, Brazil, and North America, and in India where particularly high growth rates are expected, it is focusing on expanding production capacity through a joint venture with ArcelorMittal.
(2) Earnings power is increasing. Profitability of the domestic steel business has markedly improved as a result of fixed cost reductions through optimization of the production system and promotion of price revisions for the tied transactions. In the medium term, an improved product mix due to increased production of high value-added products is expected to contribute to performance. In addition to the generally strong performance of the Overseas Steel Business and the Other Group Companies, contribution of the Raw Material Business to earnings is also increasing. Furthermore, the Company's financial structure is improving on the back of ongoing asset reductions and strong performance. Based on the above, JCR has upgraded the rating on the Company by one notch to "AA" with Stable outlook.
(3) The Company's plan for business profit (IFRS) for FY2023 is 690.0 billion yen (down $24.7 \%$ year-onyear), but the Company will be able to secure an increase in the real business profit, excluding the impact of inventory valuation differences and other factors. Despite sluggish growth in domestic production and shipments, it expects an improvement in margins, and cost reductions through
optimization of production systems will contribute to profit growth. JCR believes that the Company will be able to secure a certain level of profit in FY2024 and beyond. Collaboration with NIPPON STEEL TRADING CORPORATION, which became a consolidated subsidiary in April 2023, will be enhanced, and further cost reductions and an increase of sales in electromagnetic steel sheets and ultra-high-tensile strength steel sheets can be also expected.
(4) Its financial structure has improved in recent years, with DER (after taking into account the equity content of hybrid financing) falling from 0.7 x at the end of FY2019 to 0.5 x at the end of FY2022. Although interest-bearing debt has increased due to the consolidation of NIPPON STEEL TRADING CORPORATION, the Company will continue to accumulate equity capital through profits. The Company will be able to maintain a stable financial structure while making capital investments for increasing production of high value-added products or other purposes. The amount of investment in India, where it is expanding its production capacity, is expected to become large, and JCR will pay close attention to the progress of production system development and the pace of investment recovery in the country.

Issuer: JFE Holdings, Inc.

```
<Affirmation>
    Long-term Issuer Rating:
    Outlook:
    Bonds:
    Bonds (Dated subordinated bonds):
    Subordinated Loan:
    Shelf Registration:
    CP:
    AA-
    Stable
    AA-
    A
    A
Preliminary AA-
J-1+
```

Issuer: JFE Steel Corporation
<Affirmation>
Long-term Issuer Rating:
Outlook:

AA-
Stable
(1) JFE Holdings, Inc. (the "Company) is the holding company of the JFE Group, one of the two largest steel groups in Japan. JFE Steel is the core operating company of the JFE Group. It has high technological capabilities, a large number of high value-added products centered on steel sheets, and an excellent customer base in Japan and overseas. JFE Steel's strength lies in its efficient production system, with production using blast furnaces at its large-scale West Japan Works and urban East Japan Works. In September 2023, it reduced production capacity by shuttering the upstream processes at the Keihin District in its East Japan Works. The Company has been promoting structural reforms and been shifting from quantity to quality. Overseas, it aims to expand its business by providing solutions that leverage knowledge, skills, and data, including collaboration with Indian blast furnace manufacturer JSW Steel (in which it holds a 15.0\% stake).
(2) The Company will be able to secure a certain level of profit for the time being. It is working to raise the base price level as well as to pass on cost increases caused by rising prices to the selling price of steel products. In addition to a decrease in fixed costs due to structural reforms such as production capacity reductions, it can also improve its product mix by strengthening sales of high value-added products. Although overseas market trends must be kept in mind, there is a strong likelihood that the steel business will continue to perform well in the future. Furthermore, its financial structure is on a recovery trend, backed by the accumulation of equity capital through profits and the use of hybrid financing. Based on the above, JCR has affirmed the rating on the Company and JFE Steel with Stable outlook.
(3) The Company's plan for business profit (IFRS) for FY2023 is 290.0 billion yen (up $23.0 \%$ year-onyear). The steel business is expected to have a negative inventory valuation difference, but spread is expected to improve as a result of sales price revisions, and the Company will be able to secure a certain level of profit in FY2024 and beyond. The engineering business and trading business are expected to post generally stable performance, and cost reductions, including the effects of structural reforms, are also expected to contribute to the performance. In the medium term, sales of high valueadded products, such as large and heavy steel plate for wind power project and grain oriented electrical steels through the joint venture with JSW Steel, are expected to expand.
(4) The Company's DER (after taking into account the equity content of hybrid financing) at the end of FY2022 was $0.7 x$, showing an improving trend after bottoming out at the end of FY2019. The Company plans to invest about 1 trillion yen by FY2030 to reduce CO2 emissions, and the amount of investments is likely to increase in the future. JCR believes, however, that the Company will be able to maintain a stable financial base, taking into account the financing through equity finance in September 2023 and prospects for its cash flow generation ability.

Issuer: Kobe Steel, Ltd.
<Rating Change>
Long-term Issuer Rating
Outlook:
Bonds:
Shelf Registration:
<Affirmation>
CP:

from A- to A<br>Stable<br>from $A$ - to $A$<br>from Preliminary A- to Preliminary A

J-1
(1) Kobe Steel, Ltd. (the "Company") as KOBELCO Group is engaged in seven business segments: steel \& aluminum, advanced materials, and welding in the materials business; machinery, engineering, and construction machinery in the machinery business; and the electric power business. It aims to create "distinctive products and technologies" and strengthen "manufacturing capabilities" in each business area by utilizing 21 core technologies. Its strength lies in its comprehensive capabilities that develop a wide range of diverse businesses. In its current medium-term management plan through FY2023, the Company has positioned "establishing a stable earnings base" as one of its top priorities and is focusing on various measures to secure an earnings level of $5 \%$ or more ROIC.
(2) Earnings power is improving and its stability is increasing. In the materials business, earnings improvement in aluminum plates, aluminum extrusions, and other products has been delayed, but performance has stabilized thanks to improvements in metal spreads and other factors. In the electric power business, the Kobe Power Plant No. 4 is now in full-scale operation, and profit level is rising. Orders in the machinery business are also generally favorable. The Company's financial structure deteriorated due to a net loss in FY2019, but has recovered to its pre-deterioration level at the end of FY2022, supported by the subsequent strong performance. Based on the above, JCR has upgraded the rating on the Company by one notch to " A " with Stable outlook.
(3) The Company's plan for ordinary profit for FY2023 is 145.0 billion yen (up $35.7 \%$ year-on-year). It expects a significant profit growth thanks to improved metal spreads and expansion of the electric power business. Its performance in FY2024 and beyond will remain generally stable. Structural reforms in the steel castings and forgings and titanium in the materials business, and construction machinery business are progressing in line with the Company's medium-term management plan, resulting in stabilization of performance. In the machinery business, orders for the petrochemicals and energy-related have been strong. In the engineering business, business expansion is expected in environment-related fields such as the Midrex Process.
(4) The Company's DER at the end of $F$ Y2022 was $0.9 \times$ ( $0.6 \times$ excluding project finance), an improvement from $1.4 x$ ( $1.2 x$ excluding project finance) at the end of FY2019. The Company has made progress in reducing interest-bearing debt and accumulating equity capital through profits as a result of its firm performance since FY2021. With investments such as the Low-CO2 Iron Metallics Project in Oman in sight, future investment spending is likely to be higher than the current level. However, given the Company's increasing ability to generate cash flow and other factors, it is expected to continue to maintain a stable financial structure.

Masayoshi Mizukawa, Yosuke Sato
Rating
Issuer: NIPPON STEEL CORPORATION

| <Rating Change> <br> Long-term Issuer Rating: AA | Outlook: Stable |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- | :---: | :---: | :---: |
| Issue | Amount | Issue Date | Due Date | Coupon | Rating |  |  |  |  |
|  | (JPY bn) | yyyy.mm.dd | yyyy.mm.dd | (\%) |  |  |  |  |  |
| Bonds no. 1 | 30 | 2019.06 .14 | 2024.06 .20 | 0.140 | AA |  |  |  |  |
| Bonds no. 2 | 30 | 2019.06 .14 | 2026.06 .19 | 0.240 | AA |  |  |  |  |


| Bonds no. 3 | 20 | 2019.06.14 | 2029.06.20 | 0.279 | AA |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bonds no. 5 | 30 | 2020.06.17 | 2025.06.20 | 0.230 | AA |
| Bonds no. 6 | 10 | 2020.06.17 | 2030.06.20 | 0.420 | AA |
| Bonds no. 7 (green bonds) | 30 | 2023.03.09 | 2028.03.17 | 0.564 | AA |
| Bonds no. 8 (green bonds) | 20 | 2023.03.09 | 2033.03.18 | 1.150 | AA |
| Bonds no. 1* | 10 | 2016.09.26 | 2026.09.18 | 0.28 | AA |
| Bonds no. 2* | 10 | 2016.09.26 | 2031.09.19 | 0.64 | AA |
| Bonds no. 3* | 10 | 2017.05.25 | 2024.05.20 | 0.220 | AA |
| Bonds no. 4* | 10 | 2017.05.25 | 2027.05.20 | 0.375 | AA |
| Bonds no. 5* | 10 | 2017.12.08 | 2024.12.20 | 0.230 | AA |
| Bonds no. 6* | 10 | 2017.12.08 | 2027.12.20 | 0.350 | AA |
| Bonds no. 8* | 20 | 2018.06.12 | 2025.06.20 | 0.250 | AA |
| Bonds no. 9* | 20 | 2018.06.12 | 2028.06.20 | 0.385 | AA |
| Bonds no. 59** | 10 | 2008.09.02 | 2028.06.20 | 2.491 | AA |

1st Series Deferrable Interest and Callable Unsecured Subordinated Bonds 70 2019.09.12 2079.09.12 (Note 1) A+
2nd Series Deferrable Interest and Callable Unsecured Subordinated Bonds
30 2019.09.12 2079.09.12 (Note 2) A+

3rd Series Deferrable Interest and Callable Unsecured Subordinated Bonds
200 2019.09.12 2079.09.12 (Note 3) A+

* Issued by NIPPON STEEL \& SUMITOMO METAL CORPORATION
** Issued by Nippon Steel Corporation
Notes:

1. $0.71 \%$ from Sept. 13, 2019 to Sept. 12, 2024. Base Interest Rate $+0.85 \%$ from Sept. 13, 2024 to Sept. 12, 2029. Base Interest Rate $+1.10 \%$ from Sept. 13, 2029 to Sept. 12, 2044. Base Interest Rate $+1.85 \%$ after that date.
2. $0.93 \%$ from Sept. 13, 2019 to Sept. 12, 2026. Base Interest Rate + 1.05\% from Sept. 13, 2026 to Sept. 12, 2029. Base Interest Rate $+1.30 \%$ from Sept. 13, 2029 to Sept. 12, 2046. Base Interest Rate $+2.05 \%$ after that date .
3. $1.24 \%$ from Sept. 13, 2019 to Sept. 12, 2029. Base Interest Rate $+1.55 \%$ from Sept. 13, 2029 to Sept. 12, 2049. Base Interest Rate + 2.30\% after that date.

| Issue | Amount (JPY bn) | Execution Date yyyy.mm.dd | Repayment Date yyyy.mm.dd | Interest Rate | Rating |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Subordinated Loan dated July 2, 2020 (Tranche A) |  |  |  |  |  |
|  | 300 | 2020.07.21 | 2080.07.22 | (Note 1) | A+ |
| Subordinated Loan dated July 2, 2020 (Tranche B) |  |  |  |  |  |
|  | 150 | 2020.07.21 | 2080.07.22 | (Note 2) | A+ |

Notes:

1. 6 M TIBOR + initial spread from the borrowing date (inclusive) to the corresponding date (exclusive) 10 years later; 6M TIBOR + initial spread $+0.25 \%$ step-up interest rate from the corresponding date (inclusive) of the borrowing date 10 years later to the corresponding date (exclusive) of the borrowing date 25 years later; and 6M TIBOR + initial spread $+1.00 \%$ step-up interest rate on and after the corresponding date 25 years later.
2. 6 M TIBOR + initial spread from the borrowing date (inclusive) to the corresponding date (exclusive) 10 years later; 6M TIBOR + initial spread $+0.25 \%$ step-up interest rate from the corresponding date (inclusive) of the borrowing date 10 years later to the corresponding date (exclusive) of the borrowing date 27 years later; and 6M TIBOR + initial spread + 1.00\% step-up interest rate on and after the corresponding date 27 years later.
Shelf Registration: Preliminary AA
Maximum: JPY 450 billion
Valid: two years effective from August 3, 2023

## <Affirmation>

CP: J-1+
Maximum: JPY 900 billion
Issuer: JFE Holdings, Inc.

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<Affirmation>
Long-term Issuer Rating: AA-
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Outlook: Stable

| Issue | Amount <br> (JPY bn) | Issue Date yyyy.mm.dd | Due Date yyyy.mm.dd | Coupon (\%) | Rating |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bonds no. 21* | 10 | 2014.03.13 | 2024.03.13 | 0.804 | AA- |
| Bonds no. 22* | 20 | 2014.09.19 | 2024.09.19 | 0.703 | AA- |
| Bonds no. 25 | 20 | 2018.05.21 | 2025.05.21 | 0.260 | AA- |
| Bonds no. 26 | 10 | 2018.11.22 | 2023.11.22 | 0.150 | AA- |
| Bonds no. 27 | 30 | 2019.05.27 | 2024.05.27 | 0.170 | AA- |
| Bonds no. 28 | 10 | 2019.05.27 | 2026.05 .27 | 0.260 | AA- |
| Bonds no. 29 | 20 | 2019.05.27 | 2029.05 .25 | 0.365 | AA- |
| Bonds no. 30 | 10 | 2019.09.20 | 2024.09.20 | 0.120 | AA- |
| Bonds no. 31 | 30 | 2019.09.20 | 2026.09.18 | 0.250 | AA- |
| Bonds no. 32 | 20 | 2019.09.20 | 2029.09.20 | 0.320 | AA- |
| Bonds no. 34 | 30 | 2020.07.14 | 2025.07.14 | 0.250 | AA- |
| Bonds no. 35 | 10 | 2020.07.14 | 2030.07.12 | 0.470 | AA- |
| Bonds no. 36 (transition bonds) |  |  |  |  |  |
|  | 25 | 2022.06.09 | 2027.06.09 | 0.330 | AA- |
| Bonds no. 37 (transition bonds) |  |  |  |  |  |
|  | 5 | 2022.06.09 | 2032.06.09 | 0.579 | AA- |
| 1st Series Deferrable Interest and Callable Unsecured Subordinated Bonds |  |  |  |  |  |
|  | 35 | 2021.06.10 | 2081.06.10 | (Note) | A |

* Guaranteed by JFE Steel Corporation
Note: Fixed interest rate of $0.68 \%$ until and including June 10, 2027. Base Interest Rate $+0.65 \%$ from June 11, 2027 to June 10, 2031. Base Interest Rate + 0.95\% from June 11, 2031 to June 10, 2047. Base Interest Rate $+1.65 \%$ from June 11, 2047 onward.

| Issue <br> Amount <br> (JPY bn) | Execution Date yyyy.mm.dd | Repayment Date yyyy.mm.dd | Interest Rate | Ratin |
| :---: | :---: | :---: | :---: | :---: |
| Loan agreement dated June 15, 2016 (Tranche B) |  |  |  |  |
| 67.5 | 2016.06.30 | 2076.06.30 | (Note 1) | A |
| Loan agreement dated June 15, 2016 (Tranche C) |  |  |  |  |
| 64.0 | 2016.06.30 | 2076.06.30 | (Note 2) | A |
| Loan agreement dated June 15, 2016 (Tranche D) |  |  |  |  |
| 36.0 | 2016.06.30 | 2076.06.30 | (Note 3) | A |
| Loan agreement dated Feb. 16, 2018 (Tranche B) |  |  |  |  |
| 100.0 | 2018.03.19 | 2078.03.19 | (Note 4) | A |
| Subordinated Loan |  |  |  |  |
| 205.0 | 2023.03.20 | 2083.03.20 | (Note 5) | A |

Notes:

1. Base Interest Rate + initial spread for interest periods from loan execution to June 30, 2026. Base Interest Rate + initial spread + 1.00\% step-up interest rate for interest periods starting on or after June 30, 2026.
2. 10-year swap interest rate + initial spread for interest periods from loan execution to June 30, 2026. Base Interest Rate + initial spread $+1.00 \%$ step-up interest rate for interest periods starting on or after June 30, 2026.
3. Predetermined fixed interest rate for interest periods from loan execution to June 30, 2026. Base Interest Rate + initial spread $+1.00 \%$ step-up interest rate for interest periods starting on or after June 30, 2026.
4. Base Interest Rate + initial spread for interest periods from loan execution to March 19, 2028. Base Interest Rate + initial spread $+1.00 \%$ step-up interest rate for interest periods starting on or after March 19, 2028.
5. 3 M JPY TIBOR + initial spread for the interest calculation periods from the Execution Date to March 2033. 3M JPY TIBOR + initial spread $+0.30 \%$ step-up interest rate for the interest calculation periods from March 2033 to March 2050. 3M JPY TIBOR + initial spread + 1.00\% step-up interest rate for the interest calculation periods beginning in or after March 2050.
Shelf Registration: Preliminary AA-
Maximum: JPY 300 billion
Valid: two years effective from July 8, 2023
CP: J-1+
Maximum: JPY 600 billion

Issuer: JFE Steel Corporation

## <Affirmation>

Long-term Issuer Rating: AA-
Outlook: Stable

Issuer: Kobe Steel, Ltd.
<Rating Change>
Long-term Issuer Rating: A Outlook: Stable

| Issue | Amount <br> (JPY bn) | Issue Date <br> yyyy.mm.dd | Due Date <br> yyyy.mm.dd | Coupon <br> $(\%)$ | Rating |
| :--- | :---: | ---: | :---: | :---: | :---: |
| Bonds no. 63 | 25 | 2015.05 .21 | 2025.05 .21 | 0.924 | A |
| Bonds no. 65 | 10 | 2015.08 .27 | 2025.08 .27 | 0.815 | A |
| Bonds no. 67 | 10 | 2021.06 .10 | 2026.06 .10 | 0.200 | A |
| Bonds no. 68 | 12 | 2023.06 .08 | 2028.06 .08 | 0.545 | A |
| Bonds no. 69 | 8 | 2023.06 .08 | 2033.06 .08 | 1.000 | A |

Shelf Registration: Preliminary A
Maximum: JPY 200 billion
Valid: two years effective from July 7, 2022

## <Affirmation>

CP: J-1
Maximum: JPY 200 billion

## Rating Assignment Date: October 4, 2023

The assumptions for the credit ratings and the definitions of the rating symbols are published as "Types of Credit Ratings and Definitions of Rating Symbols" (January 6, 2014) in Information about JCR Ratings on JCR's website (https://www.jcr.co.jp/en/).
Outline of the rating methodology is shown as "JCR's Rating Methodology" (November 7, 2014), "Iron \& Steel" (June 15, 2022), "Rating Viewpoints on Pure Holding Companies (Domestic Industrial Corporations)" (July 1, 2003), "Rating Methodology for a Holding Company" (January 26, 2015), "Rating Methodology for Group Companies of Corporate Group" (September 1, 2022) and "Ratings of Hybrid Securities" (September 10, 2012) in Information about JCR Ratings on JCR's website (https://www.jcr.co.jp/en/).
The rating stakeholder participated in the rating process of the aforementioned credit ratings.
A preliminary rating is a credit rating assigned as a preliminary evaluation while material terms for issue to be rated are not yet finalized. When the issuing terms are finalized, JCR will confirm them and will assign a credit rating anew. The rating level of the final rating may be different from that of the preliminary rating, depending on the final content of the terms, etc.

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JCR publishes its press releases regarding the rating actions both in Japanese and in English on the same day. In case that it takes time to translate rating rationale, JCR may publicize the summary version, which will be replaced by the full translated version within three business days. (Regarding Structured Finance products, JCR only publicize the summary version in English.)

## INFORMATION DISCLOSURE FORM

## Disclosure Required by Paragraph (a)(1)(ii) of Rule $17 \mathrm{~g}-7$

Issuer:

## Rating Publication

Date:

NIPPON STEEL CORPORATION

October 10, 2023

The Symbol, Number, or Score in the Rating Scale used to Denote Credit Rating Categories and Notches and, the Identity of the Obligor or the Identity and a Description of the Security or Money Market Instrument as Required by Paragraph (a)(1)(ii)(A) of Rule 17g-7

- Please see the news release. If the credit rating is a private rating, please see the report for private rating.

The version of the procedure or methodology used to determine the credit rating; as Required by Paragraph (a)(1)(ii)(B) of Rule 17g-7

- Please see the news release. If the credit rating is a private rating, please see the report for private rating.

3 The Main Assumptions and Principles used in Constructing the Procedures and Methodologies used to Determine the Credit Rating as Required by Paragraph (a)(1)(ii)(C) of Rule 17g-7

- The credit rating methodology assumes, in principle, to be applied to assess the likelihood of a given debt payment in light of its issuer's condition and business environment, etc. in the relevant future. There is certain limitation, however, in the time horizon that the rating foresees.
- The credit rating methodology assumes, in principle, that the factors posted in the below are particularly important for such likelihood to be determined, and that the rating determination is made by evaluating each of them not only quantitatively but also employing qualitative analyses.
A) Business Bases

The likelihood of a given debt payment is highly conditional to its issuer's business bases - how they can be maintained/ expanded into the future and thereby secure earnings and cash flows in adequacy and in a sustainable way.
B) Financial Grounds and Asset Quality

The likelihood of debt payment is highly dependent on the degree of the issuer's indebtedness and loss absorption capacity in terms of equity capital. Also notable is that a financial institution might see a significant loss of financial grounds as a result of changes in value of the assets under its possession.
C) Liquidity Positions

The likelihood of debt payment is highly dependent on the adequacy of the issuer's cash and other sources of repayment (liquidity positions).
D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The likelihood of debt payment is affected one way or the other by the issuer's related parties such as parent company, subsidiary, guarantor, and the government of the issuer's business domicile, etc. - by their own conditions and/ or position of support/ assistance for the issuer.
E) Order of Seniority in Debt Payment

The likelihood of debt payment can be different between given debts of the same issuer. The likelihood of debt payment for an individual debt is dependent on the issuer's discretion, and/ or its rank relative to other debts of the same issuer in the order of seniority in principal/ interest payment which is determined by design as financial product or by laws, etc.

The Potential Limitations of the Credit Rating as Required by Paragraph (a)(1)(ii)(D) of Rule 17g-7

- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- The objective of the credit rating herewith presented does not include any concerns other than the likelihood of debt payment, such as risks of price changes, market liquidity, etc.
- The credit rating herewith presented is necessary to be reviewed along with possible changes of the issuer of rated objects in its business performance and/ or circumstances which include regulatory environment, and hence subject to possible alteration.


## 5

Information on the Uncertainty of the Credit Rating as Required by Paragraph (a)(1)(ii)(E) of Rule 17g-7

- The information used for the determination of credit rating as herewith presented is obtained by JCR from the issuer of rated objects and other sources that JCR trusts in terms of accuracy and reliability but possibly contains errors due to human, non-human or other causes. Consequently, the credit rating determined on the grounds of such information does not constitute, explicitly or implicitly, any representation or warrant of JCR on the information itself or any consequences of its use in terms of accuracy, relevance, timeliness, wholeness, market value, or usefulness for any specific purposes.


## 6 <br> Use of Due Diligence Services of a Third Party in Taking the Rating Action as Required by Paragraph (a)(1)(ii)(F) of Rule 17g-7

- There is no use of any third-party due diligence service in the determination of the credit rating herewith presented.


## 7 Use of Servicer or Remittance Reports to Conduct Surveillance of the Credit Rating Required by Paragraph (a)(1)(ii)(G) of Rule $17 \mathrm{~g}-7$

- There is no use of any servicer or remittance report to conduct surveillance of the credit rating herewith presented.
- The information posted in the below, which includes data, is used for the determination of the credit rating herewith presented.
A) Audited financial statements presented by the rating stakeholders
B) Explanations of business performance, management plans, etc. presented by the rating stakeholders

Overall assessment of the Quality of Information Available and Considered in Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(I) of Rule $17 \mathrm{~g}-7$

- JCR holds its basic policies for securing the quality of information as a base of due diligence for the determination of credit ratings. The information used as a base for the determination of credit rating herewith presented satisfies such policies, which include the audit by an independent auditor, the warranty made by the issuer, the publication by the issuer, some independent media or, otherwise, JCR analyst's scrutiny, etc.
- JCR sees no particular weakness in the quality of information used for the determination of the credit rating herewith presented as compared to the information used in other cases of the credit rating for comparable issuers or ratable objects.
- If the credit rating is an Indication, please see the report for Indication.

Information Relating to Conflicts of Interest as Required by Paragraph (a)(1)(ii)(J) of Rule 17g-7

- JCR receives payment of compensation for the determination of the credit rating herewith presented from either one of those parties who are issuer, underwriter, depositor or sponsor.
- JCR did not receive in the last fiscal year in the past payment of compensation from the same party for any kind of JCR's service other than the determination of public or private credit rating, such as one in the ancillary business.

Explanation or Measure of the Potential Volatility of the Credit Rating as Required by Paragraph (a)(1)(ii)(K) of Rule 17g-7

## A) Business Bases

The credit rating is subject to alteration if there is improvement or deterioration of the issuer's business bases, since its revenue, etc. may improve or deteriorate by the change in its business management policies, clients' preferences, competitive situation, or a technological innovation. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the business bases is large.
B) Financial Grounds and Asset Quality

The credit rating is subject to alteration if the issuer increases/ decreases its debt/ capital or vice versa and thereby makes its individual debt payment liability less or more bearable and its loss absorption capacity into the future decreased or increased. Also, the changes in the quality of asset under the issuer's holding may affect the credit rating, since such changes could raise or lower the likelihood of future loss of the issuer's financial grounds. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the financial grounds and/ or asset quality is large.
C) Liquidity Positions

The credit rating is subject to alteration if there is a change in the issuer's financial management policy or in the relations with fund procurement sources and the change thereby makes its liquidity positions improve or deteriorate. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is large.
D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The credit rating is subject to alteration if there is a change in the issuer's parent company or subsidiary, guarantor or other provider of credit enhancement, or the government of the issuer's business domicile, or other related parties' own conditions and/ or position of support/ assistance for the issuer, and the change thereby makes its business bases, financial grounds and/ or liquidity positions improve or deteriorate, and/ or making the effectiveness of guarantee and other credit enhancement improve or deteriorate. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large.
E) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating is subject to alteration if there is a change in the rated debt's status in the order of seniority relative to other debts caused by the improvement/ deterioration of the issuer's financial condition. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large. Also, in case of the financial products for which non-payment of interest/ principal is contractually permissible, the credit rating is subject to alteration if and when the likelihood of such non-payment is projected to increase or decrease. The resultant alteration of the credit rating could be by a notch but often as much as a few notches.
F) Rise and Fall in General Economy and Markets

The credit rating is subject to alteration if there is a rise/ fall in the general economy and/ or the markets inducing the issuer's revenues/ expenses to increase/ decrease and vice versa, etc. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is exceptionally large.
G) Various Events

The credit rating is subject to alteration on occurrence of various events, such as change in the issuer's major shareholders, M\&A and other organizational change, accident, violation of the law, litigation, legal/ regulatory change, natural disaster, etc., which are unforeseeable at the time when the credit rating is determined, causing a significant change on the issuer's business bases, financial grounds, etc. The resultant alteration of the credit rating could be by a notch but more often than not as much as a few notches.

Information on the Content of the Credit Rating, Including the Historical Performance of the Credit Rating and the Expected Probability of Default and the Expected Loss in the Event of Default as Required by Paragraph (a)(1)(ii)(L) of Rule 17g-7

- Historical records of the credit rating herewith presented are posted in the end of this paper.
- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- Facts of the probability of default are posted as Form NRSRO Exhibit 1 on the JCR website under the URL:

$$
\underline{\text { https://www.jcr.co.jp/en/service/company/regu/nrsro/ }}
$$

Information on the Sensitivity of the Credit Rating to Assumptions Made as Required by Paragraph (a)(1)(ii)(M) of Rule 17g-7

## A) Business Bases

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's business bases and powers of earning or cash flow generation, etc. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's business bases on some drastic change in the operational environments, etc.
B) Financial Grounds and Asset Quality

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's financial grounds and asset quality. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but
possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's financial grounds and/ or asset quality on some drastic change in its business bases.
C) Liquidity Risks

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's liquidity positions. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's liquidity positions on some drastic change in its financial management policy or relations with fund procurement sources, etc.
D) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the order of seniority in repayment of interests and principal. JCR assumes the resultant change of the credit rating is most likely by a notch. The change could be as much as a few notches if the issuer's financial structure differs so much and thereby the balance between debts shifted so greatly. Rating change is also possible in case of the financial products for which non-payment of interest/ principal is contractually permissible, if and when the assumptions made at the time of its determination turns out to be inaccurate. The change of the credit rating is assumed to be by a notch but often as much as a few notches.
E) Rise and Fall in General Economy and Markets

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the prospects of general economy and markets. JCR expects the change should be most likely by a notch but could be as much as a few notches, should the economy or the markets change so greatly.

Information on the Representations, Warranties, and Enforcement Mechanisms of an Asset-backed Security as Required by Paragraph (a)(1)(ii)(N) of rule 17g-7

- The credit rating herewith presented is not for an ABS product, and hence no relevant issue.

The Historical Performance of the Credit Rating

| Issuer Name | Issue Name | Publication Date | Rating | Outlook/Direction |
| :---: | :---: | :---: | :---: | :---: |
| NIPPON STEEL | Issuer(Long-term) | March 22, 2006 | AA | Positive |
| NIPPON STEEL | Issuer(Long-term) | October 18, 2006 | AA | Positive |
| NIPPON STEEL | Issuer(Long-term) | October 4, 2007 | AA | Positive |
| NIPPON STEEL | Issuer(Long-term) | October 7, 2008 | AA | Positive |
| NIPPON STEEL | Issuer(Long-term) | October 23, 2009 | AA | Stable |
| NIPPON STEEL | Issuer(Long-term) | October 5, 2010 | AA | Stable |
| NIPPON STEEL | Issuer(Long-term) | October 5, 2011 | AA | Stable |
| NIPPON STEEL | Issuer(Long-term) | September 27, 2012 | AA- | Stable |
| NIPPON STEEL | Issuer(Long-term) | October 1, 2012 | AA- | Stable |
| NIPPON STEEL | Issuer(Long-term) | October 7, 2013 | AA- | Stable |
| NIPPON STEEL | Issuer(Long-term) | September 30, 2014 | AA- | Stable |
| NIPPON STEEL | Issuer(Long-term) | October 5, 2015 | AA- | Stable |
| NIPPON STEEL | Issuer(Long-term) | September 15, 2016 | AA- | Stable |
| NIPPON STEEL | Issuer(Long-term) | October 5, 2017 | AA- | Stable |
| NIPPON STEEL | Issuer(Long-term) | October 16, 2018 | AA- | Stable |
| NIPPON STEEL | Issuer(Long-term) | October 4, 2019 | AA- | Stable |
| NIPPON STEEL | Issuer(Long-term) | September 30, 2020 | AA- | Negative |
| NIPPON STEEL | Issuer(Long-term) | October 6, 2021 | AA- | Stable |
| NIPPON STEEL | Issuer(Long-term) | October 4, 2022 | AA- | Stable |
| NIPPON STEEL | CP | March 22, 2006 | J-1+ |  |
| NIPPON STEEL | CP | October 18, 2006 | J-1+ |  |
| NIPPON STEEL | CP | October 4, 2007 | J-1+ |  |
| NIPPON STEEL | CP | March 31, 2008 | J-1+ |  |
| NIPPON STEEL | CP | October 7, 2008 | J-1+ |  |
| NIPPON STEEL | CP | October 23, 2009 | J-1+ |  |
| NIPPON STEEL | CP | October 5, 2010 | J-1+ |  |
| NIPPON STEEL | CP | October 5, 2011 | J-1+ |  |
| NIPPON STEEL | CP | September 27, 2012 | J-1+ |  |
| NIPPON STEEL | CP | October 1, 2012 | J-1+ |  |
| NIPPON STEEL | CP | October 7, 2013 | J-1+ |  |
| NIPPON STEEL | CP | September 30, 2014 | J-1+ |  |
| NIPPON STEEL | CP | October 5, 2015 | J-1+ |  |
| NIPPON STEEL | CP | September 15, 2016 | J-1+ |  |
| NIPPON STEEL | CP | October 5, 2017 | J-1+ |  |
| NIPPON STEEL | CP | October 16, 2018 | J-1+ |  |
| NIPPON STEEL | CP | October 4, 2019 | J-1+ |  |
| NIPPON STEEL | CP | September 30, 2020 | J-1+ |  |
| NIPPON STEEL | CP | October 6, 2021 | J-1+ |  |
| NIPPON STEEL | CP | October 4, 2022 | J-1+ |  |
| NIPPON STEEL | Shelf Registration | August 3, 2023 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | August 27, 2008 | AA |  |
| NIPPON STEEL | Bonds no. 59 | October 7, 2008 | AA |  |
| NIPPON STEEL | Bonds no. 59 | October 23, 2009 | AA |  |
| NIPPON STEEL | Bonds no. 59 | October 5, 2010 | AA |  |
| NIPPON STEEL | Bonds no. 59 | October 5, 2011 | AA |  |
| NIPPON STEEL | Bonds no. 59 | September 27, 2012 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | October 1, 2012 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | October 7, 2013 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | September 30, 2014 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | October 5, 2015 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | September 15, 2016 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | October 5, 2017 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | October 16, 2018 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 59 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | September 15, 2016 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | October 5, 2017 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | October 16, 2018 | AA- |  |

The Historical Performance of the Credit Rating

| Issuer Name | Issue Name | Publication Date | Rating | Outlook/Direction |
| :---: | :---: | :---: | :---: | :---: |
| NIPPON STEEL | Bonds no. 1 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | September 15, 2016 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | October 5, 2017 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | October 16, 2018 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | May 16, 2017 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | October 5, 2017 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | October 16, 2018 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 4 | May 16, 2017 | AA- |  |
| NIPPON STEEL | Bonds no. 4 | October 5, 2017 | AA- |  |
| NIPPON STEEL | Bonds no. 4 | October 16, 2018 | AA- |  |
| NIPPON STEEL | Bonds no. 4 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 4 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 4 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 4 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 5 | December 1, 2017 | AA- |  |
| NIPPON STEEL | Bonds no. 5 | October 16, 2018 | AA- |  |
| NIPPON STEEL | Bonds no. 5 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 5 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 5 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 5 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no.6 | December 1, 2017 | AA- |  |
| NIPPON STEEL | Bonds no.6 | October 16, 2018 | AA- |  |
| NIPPON STEEL | Bonds no.6 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no.6 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no.6 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 6 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 8 | June 6, 2018 | AA- |  |
| NIPPON STEEL | Bonds no. 8 | October 16, 2018 | AA- |  |
| NIPPON STEEL | Bonds no. 8 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 8 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 8 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 8 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 9 | June 6, 2018 | AA- |  |
| NIPPON STEEL | Bonds no. 9 | October 16, 2018 | AA- |  |
| NIPPON STEEL | Bonds no. 9 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 9 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 9 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 9 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | June 6, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 1 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | June 6, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 2 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | June 6, 2019 | AA- |  |

The Historical Performance of the Credit Rating

| Issuer Name | Issue Name | Publication Date | Rating | Outlook/Direction |
| :---: | :---: | :---: | :---: | :---: |
| NIPPON STEEL | Bonds no. 3 | October 4, 2019 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 3 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no.1(subordinated) | September 6, 2019 | A |  |
| NIPPON STEEL | Bonds no.1(subordinated) | October 4, 2019 | A |  |
| NIPPON STEEL | Bonds no.1(subordinated) | September 30, 2020 | A |  |
| NIPPON STEEL | Bonds no.1(subordinated) | October 6, 2021 | A |  |
| NIPPON STEEL | Bonds no.1(subordinated) | October 4, 2022 | A |  |
| NIPPON STEEL | Bonds no.2(subordinated) | September 6, 2019 | A |  |
| NIPPON STEEL | Bonds no.2(subordinated) | October 4, 2019 | A |  |
| NIPPON STEEL | Bonds no.2(subordinated) | September 30, 2020 | A |  |
| NIPPON STEEL | Bonds no.2(subordinated) | October 6, 2021 | A |  |
| NIPPON STEEL | Bonds no.2(subordinated) | October 4, 2022 | A |  |
| NIPPON STEEL | Bonds no.3(subordinated) | September 6, 2019 | A |  |
| NIPPON STEEL | Bonds no.3(subordinated) | October 4, 2019 | A |  |
| NIPPON STEEL | Bonds no.3(subordinated) | September 30, 2020 | A |  |
| NIPPON STEEL | Bonds no.3(subordinated) | October 6, 2021 | A |  |
| NIPPON STEEL | Bonds no.3(subordinated) | October 4, 2022 | A |  |
| NIPPON STEEL | Bonds no. 5 | June 11, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 5 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 5 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no. 5 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no.6 | June 11, 2020 | AA- |  |
| NIPPON STEEL | Bonds no. 6 | September 30, 2020 | AA- |  |
| NIPPON STEEL | Bonds no.6 | October 6, 2021 | AA- |  |
| NIPPON STEEL | Bonds no.6 | October 4, 2022 | AA- |  |
| NIPPON STEEL | Bonds no. 7 | March 3, 2023 | AA- |  |
| NIPPON STEEL | Bonds no. 8 | March 3, 2023 | AA- |  |
| NIPPON STEEL | Loan(subordinatd) Tranche A | July 2, 2020 | A |  |
| NIPPON STEEL | Loan(subordinatd) Tranche A | September 30, 2020 | A |  |
| NIPPON STEEL | Loan(subordinatd) Tranche A | October 6, 2021 | A |  |
| NIPPON STEEL | Loan(subordinatd) Tranche A | October 4, 2022 | A |  |
| NIPPON STEEL | Loan(subordinatd) Tranche B | July 2, 2020 | A |  |
| NIPPON STEEL | Loan(subordinatd) Tranche B | September 30, 2020 | A |  |
| NIPPON STEEL | Loan(subordinatd) Tranche B | October 6, 2021 | A |  |
| NIPPON STEEL | Loan(subordinatd) Tranche B | October 4, 2022 | A |  |

## Attestation Required by Paragraph (a)(1)(iii) of Rule 17g-7

I, Mikiya Kubota, have responsibility to this Rating Action and to the best of my knowledge:
A) No part of the credit rating was influenced by any other business activities.
B) The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated.
C) The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

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## INFORMATION DISCLOSURE FORM

Japan Credit Rating Agency, Ltd.

## Disclosure Required by Paragraph (a)(1)(ii) of Rule $17 \mathrm{~g}-7$

Issuer:

## Rating Publication

Date:

JFE Holdings Inc.

October 10, 2023

The Symbol, Number, or Score in the Rating Scale used to Denote Credit Rating Categories and Notches and, the Identity of the Obligor or the Identity and a Description of the Security or Money Market Instrument as Required by Paragraph (a)(1)(ii)(A) of Rule 17g-7

- Please see the news release. If the credit rating is a private rating, please see the report for private rating.

The version of the procedure or methodology used to determine the credit rating; as Required by Paragraph (a)(1)(ii)(B) of Rule 17g-7

- Please see the news release. If the credit rating is a private rating, please see the report for private rating.

3 The Main Assumptions and Principles used in Constructing the Procedures and Methodologies used to Determine the Credit Rating as Required by Paragraph (a)(1)(ii)(C) of Rule 17g-7

- The credit rating methodology assumes, in principle, to be applied to assess the likelihood of a given debt payment in light of its issuer's condition and business environment, etc. in the relevant future. There is certain limitation, however, in the time horizon that the rating foresees.
- The credit rating methodology assumes, in principle, that the factors posted in the below are particularly important for such likelihood to be determined, and that the rating determination is made by evaluating each of them not only quantitatively but also employing qualitative analyses.
A) Business Bases

The likelihood of a given debt payment is highly conditional to its issuer's business bases - how they can be maintained/ expanded into the future and thereby secure earnings and cash flows in adequacy and in a sustainable way.
B) Financial Grounds and Asset Quality

The likelihood of debt payment is highly dependent on the degree of the issuer's indebtedness and loss absorption capacity in terms of equity capital. Also notable is that a financial institution might see a significant loss of financial grounds as a result of changes in value of the assets under its possession.
C) Liquidity Positions

The likelihood of debt payment is highly dependent on the adequacy of the issuer's cash and other sources of repayment (liquidity positions).
D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The likelihood of debt payment is affected one way or the other by the issuer's related parties such as parent company, subsidiary, guarantor, and the government of the issuer's business domicile, etc. - by their own conditions and/ or position of support/ assistance for the issuer.
E) Order of Seniority in Debt Payment

The likelihood of debt payment can be different between given debts of the same issuer. The likelihood of debt payment for an individual debt is dependent on the issuer's discretion, and/ or its rank relative to other debts of the same issuer in the order of seniority in principal/ interest payment which is determined by design as financial product or by laws, etc.

The Potential Limitations of the Credit Rating as Required by Paragraph (a)(1)(ii)(D) of Rule 17g-7

- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- The objective of the credit rating herewith presented does not include any concerns other than the likelihood of debt payment, such as risks of price changes, market liquidity, etc.
- The credit rating herewith presented is necessary to be reviewed along with possible changes of the issuer of rated objects in its business performance and/ or circumstances which include regulatory environment, and hence subject to possible alteration.


## 5

Information on the Uncertainty of the Credit Rating as Required by Paragraph (a)(1)(ii)(E) of Rule 17g-7

- The information used for the determination of credit rating as herewith presented is obtained by JCR from the issuer of rated objects and other sources that JCR trusts in terms of accuracy and reliability but possibly contains errors due to human, non-human or other causes. Consequently, the credit rating determined on the grounds of such information does not constitute, explicitly or implicitly, any representation or warrant of JCR on the information itself or any consequences of its use in terms of accuracy, relevance, timeliness, wholeness, market value, or usefulness for any specific purposes.


## 6 <br> Use of Due Diligence Services of a Third Party in Taking the Rating Action as Required by Paragraph (a)(1)(ii)(F) of Rule 17g-7

- There is no use of any third-party due diligence service in the determination of the credit rating herewith presented.


## 7 Use of Servicer or Remittance Reports to Conduct Surveillance of the Credit Rating Required by Paragraph (a)(1)(ii)(G) of Rule $17 \mathrm{~g}-7$

- There is no use of any servicer or remittance report to conduct surveillance of the credit rating herewith presented.
- The information posted in the below, which includes data, is used for the determination of the credit rating herewith presented.
A) Audited financial statements presented by the rating stakeholders
B) Explanations of business performance, management plans, etc. presented by the rating stakeholders

Overall assessment of the Quality of Information Available and Considered in Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(I) of Rule $17 \mathrm{~g}-7$

- JCR holds its basic policies for securing the quality of information as a base of due diligence for the determination of credit ratings. The information used as a base for the determination of credit rating herewith presented satisfies such policies, which include the audit by an independent auditor, the warranty made by the issuer, the publication by the issuer, some independent media or, otherwise, JCR analyst's scrutiny, etc.
- JCR sees no particular weakness in the quality of information used for the determination of the credit rating herewith presented as compared to the information used in other cases of the credit rating for comparable issuers or ratable objects.
- If the credit rating is an Indication, please see the report for Indication.

Information Relating to Conflicts of Interest as Required by Paragraph (a)(1)(ii)(J) of Rule 17g-7

- JCR receives payment of compensation for the determination of the credit rating herewith presented from either one of those parties who are issuer, underwriter, depositor or sponsor.
- JCR did not receive in the last fiscal year in the past payment of compensation from the same party for any kind of JCR's service other than the determination of public or private credit rating, such as one in the ancillary business.

Explanation or Measure of the Potential Volatility of the Credit Rating as Required by Paragraph (a)(1)(ii)(K) of Rule 17g-7

## A) Business Bases

The credit rating is subject to alteration if there is improvement or deterioration of the issuer's business bases, since its revenue, etc. may improve or deteriorate by the change in its business management policies, clients' preferences, competitive situation, or a technological innovation. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the business bases is large.
B) Financial Grounds and Asset Quality

The credit rating is subject to alteration if the issuer increases/ decreases its debt/ capital or vice versa and thereby makes its individual debt payment liability less or more bearable and its loss absorption capacity into the future decreased or increased. Also, the changes in the quality of asset under the issuer's holding may affect the credit rating, since such changes could raise or lower the likelihood of future loss of the issuer's financial grounds. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the financial grounds and/ or asset quality is large.
C) Liquidity Positions

The credit rating is subject to alteration if there is a change in the issuer's financial management policy or in the relations with fund procurement sources and the change thereby makes its liquidity positions improve or deteriorate. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is large.
D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The credit rating is subject to alteration if there is a change in the issuer's parent company or subsidiary, guarantor or other provider of credit enhancement, or the government of the issuer's business domicile, or other related parties' own conditions and/ or position of support/ assistance for the issuer, and the change thereby makes its business bases, financial grounds and/ or liquidity positions improve or deteriorate, and/ or making the effectiveness of guarantee and other credit enhancement improve or deteriorate. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large.
E) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating is subject to alteration if there is a change in the rated debt's status in the order of seniority relative to other debts caused by the improvement/ deterioration of the issuer's financial condition. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large. Also, in case of the financial products for which non-payment of interest/ principal is contractually permissible, the credit rating is subject to alteration if and when the likelihood of such non-payment is projected to increase or decrease. The resultant alteration of the credit rating could be by a notch but often as much as a few notches.
F) Rise and Fall in General Economy and Markets

The credit rating is subject to alteration if there is a rise/ fall in the general economy and/ or the markets inducing the issuer's revenues/ expenses to increase/ decrease and vice versa, etc. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is exceptionally large.
G) Various Events

The credit rating is subject to alteration on occurrence of various events, such as change in the issuer's major shareholders, M\&A and other organizational change, accident, violation of the law, litigation, legal/ regulatory change, natural disaster, etc., which are unforeseeable at the time when the credit rating is determined, causing a significant change on the issuer's business bases, financial grounds, etc. The resultant alteration of the credit rating could be by a notch but more often than not as much as a few notches.

Information on the Content of the Credit Rating, Including the Historical Performance of the Credit Rating and the Expected Probability of Default and the Expected Loss in the Event of Default as Required by Paragraph (a)(1)(ii)(L) of Rule 17g-7

- Historical records of the credit rating herewith presented are posted in the end of this paper.
- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- Facts of the probability of default are posted as Form NRSRO Exhibit 1 on the JCR website under the URL:

$$
\underline{\text { https://www.jcr.co.jp/en/service/company/regu/nrsro/ }}
$$

Information on the Sensitivity of the Credit Rating to Assumptions Made as Required by Paragraph (a)(1)(ii)(M) of Rule 17g-7

## A) Business Bases

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's business bases and powers of earning or cash flow generation, etc. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's business bases on some drastic change in the operational environments, etc.
B) Financial Grounds and Asset Quality

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's financial grounds and asset quality. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but
possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's financial grounds and/ or asset quality on some drastic change in its business bases.
C) Liquidity Risks

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's liquidity positions. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's liquidity positions on some drastic change in its financial management policy or relations with fund procurement sources, etc.
D) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the order of seniority in repayment of interests and principal. JCR assumes the resultant change of the credit rating is most likely by a notch. The change could be as much as a few notches if the issuer's financial structure differs so much and thereby the balance between debts shifted so greatly. Rating change is also possible in case of the financial products for which non-payment of interest/ principal is contractually permissible, if and when the assumptions made at the time of its determination turns out to be inaccurate. The change of the credit rating is assumed to be by a notch but often as much as a few notches.
E) Rise and Fall in General Economy and Markets

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the prospects of general economy and markets. JCR expects the change should be most likely by a notch but could be as much as a few notches, should the economy or the markets change so greatly.

Information on the Representations, Warranties, and Enforcement Mechanisms of an Asset-backed Security as Required by Paragraph (a)(1)(ii)(N) of rule 17g-7

- The credit rating herewith presented is not for an ABS product, and hence no relevant issue.

The Historical Performance of the Credit Rating

| Issuer Name | Issue Name | Publication Date | Rating | Outlook/Direction |
| :---: | :---: | :---: | :---: | :---: |
| JFE Holdings, Inc. | Issuer(Long-term) | March 5, 2003 | A+ |  |
| JFE Holdings, Inc. | Issuer(Long-term) | October 2, 2003 | A+ |  |
| JFE Holdings, Inc. | Issuer(Long-term) | October 4, 2004 | AA- |  |
| JFE Holdings, Inc. | Issuer(Long-term) | October 12, 2005 | AA |  |
| JFE Holdings, Inc. | Issuer(Long-term) | October 18, 2006 | AA | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 4, 2007 | AA | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 7, 2008 | AA | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 23, 2009 | AA | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 5, 2010 | AA | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 5, 2011 | AA | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | September 27, 2012 | AA- | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 7, 2013 | AA- | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | September 30, 2014 | AA- | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 5, 2015 | AA- | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 5, 2016 | AA- | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 5, 2017 | AA- | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 16, 2018 | AA- | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 4, 2019 | AA- | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | September 30, 2020 | AA- | Negative |
| JFE Holdings, Inc. | Issuer(Long-term) | October 6, 2021 | AA- | Stable |
| JFE Holdings, Inc. | Issuer(Long-term) | October 4, 2022 | AA- | Stable |
| JFE Holdings, Inc. | CP | April 1, 2003 | J-1 |  |
| JFE Holdings, Inc. | CP | October 2, 2003 | J-1 |  |
| JFE Holdings, Inc. | CP | October 4, 2004 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 12, 2005 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 18, 2006 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 4, 2007 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 7, 2008 | J-1+ |  |
| JFE Holdings, Inc. | CP | January 9, 2009 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 23, 2009 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 5, 2010 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 5, 2011 | J-1+ |  |
| JFE Holdings, Inc. | CP | September 27, 2012 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 7, 2013 | J-1+ |  |
| JFE Holdings, Inc. | CP | September 30, 2014 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 5, 2015 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 5, 2016 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 5, 2017 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 16, 2018 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 4, 2019 | J-1+ |  |
| JFE Holdings, Inc. | CP | September 30, 2020 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 6, 2021 | J-1+ |  |
| JFE Holdings, Inc. | CP | May 31, 2022 | J-1+ |  |
| JFE Holdings, Inc. | CP | October 4, 2022 | J-1+ |  |
| JFE Holdings, Inc. | Shelf Registration | July 7, 2023 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 21 | March 7, 2014 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 21 | September 30, 2014 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 21 | October 5, 2015 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 21 | October 5, 2016 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 21 | October 5, 2017 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 21 | October 16, 2018 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 21 | October 4, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 21 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 21 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 21 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 22 | September 12, 2014 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 22 | September 30, 2014 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 22 | October 5, 2015 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 22 | October 5, 2016 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 22 | October 5, 2017 | AA- |  |

The Historical Performance of the Credit Rating

| Issuer Name | Issue Name | Publication Date | Rating | Outlook/Direction |
| :---: | :---: | :---: | :---: | :---: |
| JFE Holdings, Inc. | Bonds no. 22 | October 16, 2018 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 22 | October 4, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 22 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 22 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 22 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 25 | May 15, 2018 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 25 | October 16, 2018 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 25 | October 4, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 25 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 25 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 25 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 26 | November 16, 2018 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 26 | October 4, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 26 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 26 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 26 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 27 | May 21, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 27 | October 4, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 27 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 27 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 27 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 28 | May 21, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 28 | October 4, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 28 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 28 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 28 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 29 | May 21, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 29 | October 4, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 29 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 29 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 29 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 30 | September 13, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 30 | October 4, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 30 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 30 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 30 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 31 | September 13, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 31 | October 4, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 31 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 31 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 31 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 32 | September 13, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 32 | October 4, 2019 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 32 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 32 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 32 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 34 | July 8, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 34 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 34 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 34 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 35 | July 8, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 35 | September 30, 2020 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 35 | October 6, 2021 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 35 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no.1(subordinated) | June 4, 2021 | A |  |
| JFE Holdings, Inc. | Bonds no.1(subordinated) | October 6, 2021 | A |  |
| JFE Holdings, Inc. | Bonds no.1(subordinated) | October 4, 2022 | A |  |
| JFE Holdings, Inc. | Bonds no. 36 | June 3, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 36 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Bonds no. 37 | June 3, 2022 | AA- |  |

The Historical Performance of the Credit Rating

| Issuer Name | Issue Name | Publication Date | Rating | Outlook/Direction |
| :---: | :---: | :---: | :---: | :---: |
| JFE Holdings, Inc. | Bonds no. 37 | October 4, 2022 | AA- |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | June 15, 2016 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | October 5, 2016 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | October 5, 2017 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | October 16, 2018 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | October 4, 2019 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | September 30, 2020 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | October 6, 2021 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | October 4, 2022 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche C | June 15, 2016 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche C | October 5, 2016 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche C | October 5, 2017 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche C | October 16, 2018 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche C | October 4, 2019 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche C | September 30, 2020 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche C | October 6, 2021 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche C | October 4, 2022 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche D | June 15, 2016 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche D | October 5, 2016 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche D | October 5, 2017 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche D | October 16, 2018 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche D | October 4, 2019 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche D | September 30, 2020 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche D | October 6, 2021 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche D | October 4, 2022 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | February 16, 2018 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | October 16, 2018 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | October 4, 2019 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | September 30, 2020 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | October 6, 2021 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) Tranche B | October 4, 2022 | A |  |
| JFE Holdings, Inc. | Loan(subordinated) | February 17, 2023 | A |  |

## Attestation Required by Paragraph (a)(1)(iii) of Rule 17g-7

I, Mikiya Kubota, have responsibility to this Rating Action and to the best of my knowledge:
A) No part of the credit rating was influenced by any other business activities.
B) The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated.
C) The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

[^1]
## INFORMATION DISCLOSURE FORM

Japan Credit Rating Agency, Ltd.

## Disclosure Required by Paragraph (a)(1)(ii) of Rule $17 \mathrm{~g}-7$

Issuer:

## Rating Publication

Date:

JFE Steel Corporation

October 10, 2023

The Symbol, Number, or Score in the Rating Scale used to Denote Credit Rating Categories and Notches and, the Identity of the Obligor or the Identity and a Description of the Security or Money Market Instrument as Required by Paragraph (a)(1)(ii)(A) of Rule 17g-7

- Please see the news release. If the credit rating is a private rating, please see the report for private rating.

The version of the procedure or methodology used to determine the credit rating; as Required by Paragraph (a)(1)(ii)(B) of Rule 17g-7

- Please see the news release. If the credit rating is a private rating, please see the report for private rating.

3 The Main Assumptions and Principles used in Constructing the Procedures and Methodologies used

- The credit rating methodology assumes, in principle, to be applied to assess the likelihood of a given debt payment in light of its issuer's condition and business environment, etc. in the relevant future. There is certain limitation, however, in the time horizon that the rating foresees.
- The credit rating methodology assumes, in principle, that the factors posted in the below are particularly important for such likelihood to be determined, and that the rating determination is made by evaluating each of them not only quantitatively but also employing qualitative analyses.
A) Business Bases

The likelihood of a given debt payment is highly conditional to its issuer's business bases - how they can be maintained/ expanded into the future and thereby secure earnings and cash flows in adequacy and in a sustainable way.
B) Financial Grounds and Asset Quality

The likelihood of debt payment is highly dependent on the degree of the issuer's indebtedness and loss absorption capacity in terms of equity capital. Also notable is that a financial institution might see a significant loss of financial grounds as a result of changes in value of the assets under its possession.
C) Liquidity Positions

The likelihood of debt payment is highly dependent on the adequacy of the issuer's cash and other sources of repayment (liquidity positions).
D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The likelihood of debt payment is affected one way or the other by the issuer's related parties such as parent company, subsidiary, guarantor, and the government of the issuer's business domicile, etc. - by their own conditions and/ or position of support/ assistance for the issuer.
E) Order of Seniority in Debt Payment

The likelihood of debt payment can be different between given debts of the same issuer. The likelihood of debt payment for an individual debt is dependent on the issuer's discretion, and/ or its rank relative to other debts of the same issuer in the order of seniority in principal/ interest payment which is determined by design as financial product or by laws, etc.

The Potential Limitations of the Credit Rating as Required by Paragraph (a)(1)(ii)(D) of Rule 17g-7

- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- The objective of the credit rating herewith presented does not include any concerns other than the likelihood of debt payment, such as risks of price changes, market liquidity, etc.
- The credit rating herewith presented is necessary to be reviewed along with possible changes of the issuer of rated objects in its business performance and/ or circumstances which include regulatory environment, and hence subject to possible alteration.


## 5

Information on the Uncertainty of the Credit Rating as Required by Paragraph (a)(1)(ii)(E) of Rule 17g-7

- The information used for the determination of credit rating as herewith presented is obtained by JCR from the issuer of rated objects and other sources that JCR trusts in terms of accuracy and reliability but possibly contains errors due to human, non-human or other causes. Consequently, the credit rating determined on the grounds of such information does not constitute, explicitly or implicitly, any representation or warrant of JCR on the information itself or any consequences of its use in terms of accuracy, relevance, timeliness, wholeness, market value, or usefulness for any specific purposes.


## 6 <br> Use of Due Diligence Services of a Third Party in Taking the Rating Action as Required by Paragraph (a)(1)(ii)(F) of Rule 17g-7

- There is no use of any third-party due diligence service in the determination of the credit rating herewith presented.


## 7 Use of Servicer or Remittance Reports to Conduct Surveillance of the Credit Rating Required by Paragraph (a)(1)(ii)(G) of Rule $17 \mathrm{~g}-7$

- There is no use of any servicer or remittance report to conduct surveillance of the credit rating herewith presented.
- The information posted in the below, which includes data, is used for the determination of the credit rating herewith presented.
A) Audited financial statements presented by the rating stakeholders
B) Explanations of business performance, management plans, etc. presented by the rating stakeholders

Overall assessment of the Quality of Information Available and Considered in Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(I) of Rule $17 \mathrm{~g}-7$

- JCR holds its basic policies for securing the quality of information as a base of due diligence for the determination of credit ratings. The information used as a base for the determination of credit rating herewith presented satisfies such policies, which include the audit by an independent auditor, the warranty made by the issuer, the publication by the issuer, some independent media or, otherwise, JCR analyst's scrutiny, etc.
- JCR sees no particular weakness in the quality of information used for the determination of the credit rating herewith presented as compared to the information used in other cases of the credit rating for comparable issuers or ratable objects.
- If the credit rating is an Indication, please see the report for Indication.

Information Relating to Conflicts of Interest as Required by Paragraph (a)(1)(ii)(J) of Rule 17g-7

- JCR does not receive payment of compensation for the determination of the credit rating herewith presented from either one of those parties who are issuer, underwriter, depositor or sponsor.
- JCR did not receive in the last fiscal year in the past payment of compensation from the same party for any kind of JCR's service other than the determination of public or private credit rating, such as one in the ancillary business.

Explanation or Measure of the Potential Volatility of the Credit Rating as Required by Paragraph (a)(1)(ii)(K) of Rule 17g-7

## A) Business Bases

The credit rating is subject to alteration if there is improvement or deterioration of the issuer's business bases, since its revenue, etc. may improve or deteriorate by the change in its business management policies, clients' preferences, competitive situation, or a technological innovation. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the business bases is large.
B) Financial Grounds and Asset Quality

The credit rating is subject to alteration if the issuer increases/ decreases its debt/ capital or vice versa and thereby makes its individual debt payment liability less or more bearable and its loss absorption capacity into the future decreased or increased. Also, the changes in the quality of asset under the issuer's holding may affect the credit rating, since such changes could raise or lower the likelihood of future loss of the issuer's financial grounds. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the financial grounds and/ or asset quality is large.
C) Liquidity Positions

The credit rating is subject to alteration if there is a change in the issuer's financial management policy or in the relations with fund procurement sources and the change thereby makes its liquidity positions improve or deteriorate. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is large.
D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The credit rating is subject to alteration if there is a change in the issuer's parent company or subsidiary, guarantor or other provider of credit enhancement, or the government of the issuer's business domicile, or other related parties' own conditions and/ or position of support/ assistance for the issuer, and the change thereby makes its business bases, financial grounds and/ or liquidity positions improve or deteriorate, and/ or making the effectiveness of guarantee and other credit enhancement improve or deteriorate. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large.
E) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating is subject to alteration if there is a change in the rated debt's status in the order of seniority relative to other debts caused by the improvement/ deterioration of the issuer's financial condition. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large. Also, in case of the financial products for which non-payment of interest/ principal is contractually permissible, the credit rating is subject to alteration if and when the likelihood of such non-payment is projected to increase or decrease. The resultant alteration of the credit rating could be by a notch but often as much as a few notches.
F) Rise and Fall in General Economy and Markets

The credit rating is subject to alteration if there is a rise/ fall in the general economy and/ or the markets inducing the issuer's revenues/ expenses to increase/ decrease and vice versa, etc. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is exceptionally large.
G) Various Events

The credit rating is subject to alteration on occurrence of various events, such as change in the issuer's major shareholders, M\&A and other organizational change, accident, violation of the law, litigation, legal/ regulatory change, natural disaster, etc., which are unforeseeable at the time when the credit rating is determined, causing a significant change on the issuer's business bases, financial grounds, etc. The resultant alteration of the credit rating could be by a notch but more often than not as much as a few notches.

Information on the Content of the Credit Rating, Including the Historical Performance of the Credit Rating and the Expected Probability of Default and the Expected Loss in the Event of Default as Required by Paragraph (a)(1)(ii)(L) of Rule 17g-7

- Historical records of the credit rating herewith presented are posted in the end of this paper.
- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- Facts of the probability of default are posted as Form NRSRO Exhibit 1 on the JCR website under the URL:

$$
\underline{\text { https://www.jcr.co.jp/en/service/company/regu/nrsro/ }}
$$

Information on the Sensitivity of the Credit Rating to Assumptions Made as Required by Paragraph (a)(1)(ii)(M) of Rule 17g-7

## A) Business Bases

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's business bases and powers of earning or cash flow generation, etc. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's business bases on some drastic change in the operational environments, etc.
B) Financial Grounds and Asset Quality

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's financial grounds and asset quality. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but
possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's financial grounds and/ or asset quality on some drastic change in its business bases.
C) Liquidity Risks

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's liquidity positions. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's liquidity positions on some drastic change in its financial management policy or relations with fund procurement sources, etc.
D) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the order of seniority in repayment of interests and principal. JCR assumes the resultant change of the credit rating is most likely by a notch. The change could be as much as a few notches if the issuer's financial structure differs so much and thereby the balance between debts shifted so greatly. Rating change is also possible in case of the financial products for which non-payment of interest/ principal is contractually permissible, if and when the assumptions made at the time of its determination turns out to be inaccurate. The change of the credit rating is assumed to be by a notch but often as much as a few notches.
E) Rise and Fall in General Economy and Markets

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the prospects of general economy and markets. JCR expects the change should be most likely by a notch but could be as much as a few notches, should the economy or the markets change so greatly.

Information on the Representations, Warranties, and Enforcement Mechanisms of an Asset-backed Security as Required by Paragraph (a)(1)(ii)(N) of rule 17g-7

- The credit rating herewith presented is not for an ABS product, and hence no relevant issue.

The Historical Performance of the Credit Rating

| Issuer Name | Issue Name | Publication Date | Rating | Outlook/Direction |
| :--- | :--- | ---: | :---: | :---: |
| JFE Steel Corporation | Issuer(Long-term) | October 18, 2006 | AA | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 4, 2007 | AA | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 7, 2008 | AA | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 23, 2009 | AA | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 5, 2010 | AA | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 5, 2011 | AA | Stable |
| JFE Steel Corporation | Issuer(Long-term) | September 27, 2012 | AA- | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 7, 2013 | AA- | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 5, 2015 | AA- | AA- |
| JFE Steel Corporation | Issuer(Long-term) | October 5, 2016 | AA- | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 5, 2017 | AA- | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 16, 2018 | AA- | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 4, 2019 | AA- | Stable |
| JFE Steel Corporation | Issuer(Long-term) | September 30, 2020 | AA- | Negative |
| JFE Steel Corporation | Issuer(Long-term) | October 6, 2021 | AA- | Stable |
| JFE Steel Corporation | Issuer(Long-term) | October 4, 2022 | AA- | Stable |
| JFE Steel Corporation | Issuer(Long-term) |  |  |  |

## Attestation Required by Paragraph (a)(1)(iii) of Rule 17g-7

I, Mikiya Kubota, have responsibility to this Rating Action and to the best of my knowledge:
A) No part of the credit rating was influenced by any other business activities.
B) The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated.
C) The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

[^2]
## INFORMATION DISCLOSURE FORM

## Disclosure Required by Paragraph (a)(1)(ii) of Rule $17 \mathrm{~g}-7$

Issuer:

Rating Publication
Date:

Kobe Steel, Ltd.

October 10, 2023

The Symbol, Number, or Score in the Rating Scale used to Denote Credit Rating Categories and Notches and, the Identity of the Obligor or the Identity and a Description of the Security or Money Market Instrument as Required by Paragraph (a)(1)(ii)(A) of Rule 17g-7

- Please see the news release. If the credit rating is a private rating, please see the report for private rating.

The version of the procedure or methodology used to determine the credit rating; as Required by Paragraph (a)(1)(ii)(B) of Rule 17g-7

- Please see the news release. If the credit rating is a private rating, please see the report for private rating.

3 The Main Assumptions and Principles used in Constructing the Procedures and Methodologies used to Determine the Credit Rating as Required by Paragraph (a)(1)(ii)(C) of Rule 17g-7

- The credit rating methodology assumes, in principle, to be applied to assess the likelihood of a given debt payment in light of its issuer's condition and business environment, etc. in the relevant future. There is certain limitation, however, in the time horizon that the rating foresees.
- The credit rating methodology assumes, in principle, that the factors posted in the below are particularly important for such likelihood to be determined, and that the rating determination is made by evaluating each of them not only quantitatively but also employing qualitative analyses.
A) Business Bases

The likelihood of a given debt payment is highly conditional to its issuer's business bases - how they can be maintained/ expanded into the future and thereby secure earnings and cash flows in adequacy and in a sustainable way.
B) Financial Grounds and Asset Quality

The likelihood of debt payment is highly dependent on the degree of the issuer's indebtedness and loss absorption capacity in terms of equity capital. Also notable is that a financial institution might see a significant loss of financial grounds as a result of changes in value of the assets under its possession.
C) Liquidity Positions

The likelihood of debt payment is highly dependent on the adequacy of the issuer's cash and other sources of repayment (liquidity positions).
D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The likelihood of debt payment is affected one way or the other by the issuer's related parties such as parent company, subsidiary, guarantor, and the government of the issuer's business domicile, etc. - by their own conditions and/ or position of support/ assistance for the issuer.
E) Order of Seniority in Debt Payment

The likelihood of debt payment can be different between given debts of the same issuer. The likelihood of debt payment for an individual debt is dependent on the issuer's discretion, and/ or its rank relative to other debts of the same issuer in the order of seniority in principal/ interest payment which is determined by design as financial product or by laws, etc.

The Potential Limitations of the Credit Rating as Required by Paragraph (a)(1)(ii)(D) of Rule 17g-7

- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- The objective of the credit rating herewith presented does not include any concerns other than the likelihood of debt payment, such as risks of price changes, market liquidity, etc.
- The credit rating herewith presented is necessary to be reviewed along with possible changes of the issuer of rated objects in its business performance and/ or circumstances which include regulatory environment, and hence subject to possible alteration.


## 5

Information on the Uncertainty of the Credit Rating as Required by Paragraph (a)(1)(ii)(E) of Rule 17g-7

- The information used for the determination of credit rating as herewith presented is obtained by JCR from the issuer of rated objects and other sources that JCR trusts in terms of accuracy and reliability but possibly contains errors due to human, non-human or other causes. Consequently, the credit rating determined on the grounds of such information does not constitute, explicitly or implicitly, any representation or warrant of JCR on the information itself or any consequences of its use in terms of accuracy, relevance, timeliness, wholeness, market value, or usefulness for any specific purposes.


## 6 <br> Use of Due Diligence Services of a Third Party in Taking the Rating Action as Required by Paragraph (a)(1)(ii)(F) of Rule 17g-7

- There is no use of any third-party due diligence service in the determination of the credit rating herewith presented.


## 7 Use of Servicer or Remittance Reports to Conduct Surveillance of the Credit Rating Required by Paragraph (a)(1)(ii)(G) of Rule $17 \mathrm{~g}-7$

- There is no use of any servicer or remittance report to conduct surveillance of the credit rating herewith presented.
- The information posted in the below, which includes data, is used for the determination of the credit rating herewith presented.
A) Audited financial statements presented by the rating stakeholders
B) Explanations of business performance, management plans, etc. presented by the rating stakeholders

Overall assessment of the Quality of Information Available and Considered in Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(I) of Rule $17 \mathrm{~g}-7$

- JCR holds its basic policies for securing the quality of information as a base of due diligence for the determination of credit ratings. The information used as a base for the determination of credit rating herewith presented satisfies such policies, which include the audit by an independent auditor, the warranty made by the issuer, the publication by the issuer, some independent media or, otherwise, JCR analyst's scrutiny, etc.
- JCR sees no particular weakness in the quality of information used for the determination of the credit rating herewith presented as compared to the information used in other cases of the credit rating for comparable issuers or ratable objects.
- If the credit rating is an Indication, please see the report for Indication.

Information Relating to Conflicts of Interest as Required by Paragraph (a)(1)(ii)(J) of Rule 17g-7

- JCR receives payment of compensation for the determination of the credit rating herewith presented from either one of those parties who are issuer, underwriter, depositor or sponsor.
- JCR did not receive in the last fiscal year in the past payment of compensation from the same party for any kind of JCR's service other than the determination of public or private credit rating, such as one in the ancillary business.

Explanation or Measure of the Potential Volatility of the Credit Rating as Required by Paragraph (a)(1)(ii)(K) of Rule 17g-7

## A) Business Bases

The credit rating is subject to alteration if there is improvement or deterioration of the issuer's business bases, since its revenue, etc. may improve or deteriorate by the change in its business management policies, clients' preferences, competitive situation, or a technological innovation. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the business bases is large.
B) Financial Grounds and Asset Quality

The credit rating is subject to alteration if the issuer increases/ decreases its debt/ capital or vice versa and thereby makes its individual debt payment liability less or more bearable and its loss absorption capacity into the future decreased or increased. Also, the changes in the quality of asset under the issuer's holding may affect the credit rating, since such changes could raise or lower the likelihood of future loss of the issuer's financial grounds. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the financial grounds and/ or asset quality is large.
C) Liquidity Positions

The credit rating is subject to alteration if there is a change in the issuer's financial management policy or in the relations with fund procurement sources and the change thereby makes its liquidity positions improve or deteriorate. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is large.
D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The credit rating is subject to alteration if there is a change in the issuer's parent company or subsidiary, guarantor or other provider of credit enhancement, or the government of the issuer's business domicile, or other related parties' own conditions and/ or position of support/ assistance for the issuer, and the change thereby makes its business bases, financial grounds and/ or liquidity positions improve or deteriorate, and/ or making the effectiveness of guarantee and other credit enhancement improve or deteriorate. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large.
E) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating is subject to alteration if there is a change in the rated debt's status in the order of seniority relative to other debts caused by the improvement/ deterioration of the issuer's financial condition. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large. Also, in case of the financial products for which non-payment of interest/ principal is contractually permissible, the credit rating is subject to alteration if and when the likelihood of such non-payment is projected to increase or decrease. The resultant alteration of the credit rating could be by a notch but often as much as a few notches.
F) Rise and Fall in General Economy and Markets

The credit rating is subject to alteration if there is a rise/ fall in the general economy and/ or the markets inducing the issuer's revenues/ expenses to increase/ decrease and vice versa, etc. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is exceptionally large.
G) Various Events

The credit rating is subject to alteration on occurrence of various events, such as change in the issuer's major shareholders, M\&A and other organizational change, accident, violation of the law, litigation, legal/ regulatory change, natural disaster, etc., which are unforeseeable at the time when the credit rating is determined, causing a significant change on the issuer's business bases, financial grounds, etc. The resultant alteration of the credit rating could be by a notch but more often than not as much as a few notches.

Information on the Content of the Credit Rating, Including the Historical Performance of the Credit Rating and the Expected Probability of Default and the Expected Loss in the Event of Default as Required by Paragraph (a)(1)(ii)(L) of Rule 17g-7

- Historical records of the credit rating herewith presented are posted in the end of this paper.
- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- Facts of the probability of default are posted as Form NRSRO Exhibit 1 on the JCR website under the URL:

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\underline{\text { https://www.jcr.co.jp/en/service/company/regu/nrsro/ }}
$$

Information on the Sensitivity of the Credit Rating to Assumptions Made as Required by Paragraph (a)(1)(ii)(M) of Rule 17g-7

## A) Business Bases

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's business bases and powers of earning or cash flow generation, etc. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's business bases on some drastic change in the operational environments, etc.
B) Financial Grounds and Asset Quality

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's financial grounds and asset quality. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but
possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's financial grounds and/ or asset quality on some drastic change in its business bases.
C) Liquidity Risks

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's liquidity positions. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's liquidity positions on some drastic change in its financial management policy or relations with fund procurement sources, etc.
D) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the order of seniority in repayment of interests and principal. JCR assumes the resultant change of the credit rating is most likely by a notch. The change could be as much as a few notches if the issuer's financial structure differs so much and thereby the balance between debts shifted so greatly. Rating change is also possible in case of the financial products for which non-payment of interest/ principal is contractually permissible, if and when the assumptions made at the time of its determination turns out to be inaccurate. The change of the credit rating is assumed to be by a notch but often as much as a few notches.
E) Rise and Fall in General Economy and Markets

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the prospects of general economy and markets. JCR expects the change should be most likely by a notch but could be as much as a few notches, should the economy or the markets change so greatly.

Information on the Representations, Warranties, and Enforcement Mechanisms of an Asset-backed Security as Required by Paragraph (a)(1)(ii)(N) of rule 17g-7

- The credit rating herewith presented is not for an ABS product, and hence no relevant issue.

The Historical Performance of the Credit Rating

| Issuer Name | Issue Name | Publication Date | Rating | Outlook/Direction |
| :---: | :---: | :---: | :---: | :---: |
| Kobe Steel, Ltd. | Issuer(Long-term) | July 7, 2006 | A | Positive |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 16, 2006 | A+ | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 4, 2007 | A+ | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 7, 2008 | A+ | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 23, 2009 | A+ | Negative |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 5, 2010 | A+ | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 5, 2011 | A+ | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | September 27, 2012 | A | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 7, 2013 | A | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | September 30, 2014 | A | Positive |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 5, 2015 | A | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 5, 2016 | A | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 5, 2017 | A | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 17, 2017 | \#A | Negative |
| Kobe Steel, Ltd. | Issuer(Long-term) | March 7, 2018 | A | Negative |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 16, 2018 | A | Negative |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 4, 2019 | A | Negative |
| Kobe Steel, Ltd. | Issuer(Long-term) | September 30, 2020 | A- | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 6, 2021 | A- | Stable |
| Kobe Steel, Ltd. | Issuer(Long-term) | October 4, 2022 | A- | Stable |
| Kobe Steel, Ltd. | CP | June 23, 1993 | J-1 |  |
| Kobe Steel, Ltd. | CP | June 16, 1995 | J-1 |  |
| Kobe Steel, Ltd. | CP | June 5, 1996 | J-1+ |  |
| Kobe Steel, Ltd. | CP | August 3, 1998 | J-1+ |  |
| Kobe Steel, Ltd. | CP | May 11, 1999 | \#J-1+ |  |
| Kobe Steel, Ltd. | CP | July 5, 1999 | J-1 |  |
| Kobe Steel, Ltd. | CP | July 19, 2000 | J-1 |  |
| Kobe Steel, Ltd. | CP | August 28, 2001 | \#J-1 |  |
| Kobe Steel, Ltd. | CP | December 26, 2001 | J-1 |  |
| Kobe Steel, Ltd. | CP | August 28, 2002 | J-2 |  |
| Kobe Steel, Ltd. | CP | October 2, 2003 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 4, 2004 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 12, 2005 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 16, 2006 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 4, 2007 | J-1 |  |
| Kobe Steel, Ltd. | CP | April 9, 2008 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 7, 2008 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 23, 2009 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 5, 2010 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 5, 2011 | J-1 |  |
| Kobe Steel, Ltd. | CP | September 27, 2012 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 7, 2013 | J-1 |  |
| Kobe Steel, Ltd. | CP | September 30, 2014 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 5, 2015 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 5, 2016 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 5, 2017 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 17, 2017 | \#J-1 | Negative |
| Kobe Steel, Ltd. | CP | March 7, 2018 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 16, 2018 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 4, 2019 | J-1 |  |
| Kobe Steel, Ltd. | CP | September 30, 2020 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 6, 2021 | J-1 |  |
| Kobe Steel, Ltd. | CP | October 4, 2022 | J-1 |  |
| Kobe Steel, Ltd. | Shelf Registration | July 7, 2022 | A- |  |
| Kobe Steel, Ltd. | Shelf Registration | October 4, 2022 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 63 | May 15, 2015 | A |  |
| Kobe Steel, Ltd. | Bonds no. 63 | October 5, 2015 | A |  |
| Kobe Steel, Ltd. | Bonds no. 63 | October 5, 2016 | A |  |
| Kobe Steel, Ltd. | Bonds no. 63 | October 5, 2017 | A |  |
| Kobe Steel, Ltd. | Bonds no. 63 | October 17, 2017 | \#A | Negative |

The Historical Performance of the Credit Rating

| Issuer Name | Issue Name | Publication Date | Rating | Outlook/Direction |
| :---: | :---: | :---: | :---: | :---: |
| Kobe Steel, Ltd. | Bonds no. 63 | March 7, 2018 | A |  |
| Kobe Steel, Ltd. | Bonds no. 63 | October 16, 2018 | A |  |
| Kobe Steel, Ltd. | Bonds no. 63 | October 4, 2019 | A |  |
| Kobe Steel, Ltd. | Bonds no. 63 | September 30, 2020 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 63 | October 6, 2021 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 63 | October 4, 2022 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 65 | August 21, 2015 | A |  |
| Kobe Steel, Ltd. | Bonds no. 65 | October 5, 2015 | A |  |
| Kobe Steel, Ltd. | Bonds no. 65 | October 5, 2016 | A |  |
| Kobe Steel, Ltd. | Bonds no. 65 | October 5, 2017 | A |  |
| Kobe Steel, Ltd. | Bonds no. 65 | October 17, 2017 | \#A | Negative |
| Kobe Steel, Ltd. | Bonds no. 65 | March 7, 2018 | A |  |
| Kobe Steel, Ltd. | Bonds no. 65 | October 16, 2018 | A |  |
| Kobe Steel, Ltd. | Bonds no. 65 | October 4, 2019 | A |  |
| Kobe Steel, Ltd. | Bonds no. 65 | September 30, 2020 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 65 | October 6, 2021 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 65 | October 4, 2022 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 67 | June 4, 2021 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 67 | October 6, 2021 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 67 | October 4, 2022 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 68 | June 2, 2023 | A- |  |
| Kobe Steel, Ltd. | Bonds no. 69 | June 2, 2023 | A- |  |

## Attestation Required by Paragraph (a)(1)(iii) of Rule 17g-7

I, Mikiya Kubota, have responsibility to this Rating Action and to the best of my knowledge:
A) No part of the credit rating was influenced by any other business activities.
B) The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated.
C) The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

[^3]
[^0]:    Mikiya Kubota
    General Manager of Corporate Rating Department I

[^1]:    Mikiya Kubota
    General Manager of Corporate Rating Department I

[^2]:    Mikiya Kubota
    General Manager of Corporate Rating Department I

[^3]:    Mikiya Kubota
    General Manager of Corporate Rating Department I

