

LOCKOUT-TAGOUT PROCEDURES

PLATE MILL

TABLE OF CONTENTS

EQUIPMENT	PAGE
#5 ELECTRIC ANNEALING FURNACE	2
BAGHOUSE DUST COLLECTOR	3
CINCINNATI 1" SHEAR	4
GAS FURNACE #1	5
GAS FURNACE #2	6
GAS FURNACE #3	7
GAS FURNACE #4	8
L&L #6 ELECTRIC FURNACE	9
L&L #7 ELECTRIC FURNACE	10
MCKAY FLATTENER	11
ROLLING MILL	12

Electronic copies of LOTO procedures are available through Smart Maintenance and network directory listing Z:\NSM_Intra\LOTO

Niagara Specialty Metals, Inc. Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for #5 Electric Annealing Furnace PM

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

A. ELECTRICAL

B. POTENTIAL (STORED)

C. KINETIC (IN MOTION)

D. PNEUMATIC (AIR OR GAS)

E. HYDRAULIC

F. THERMAL

G. CHEMICAL

H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

A. 100 AMP GE DISCONNECT LOCATED ON EAST WALL AT EAST END OF FURNACE REMOVES POWER TO TOP ELEMENTS.

100 AMP GE DISCONNECT LABELED "ZONE A" AND 100 AMP SQUARE D DISCONNECT LABELED "ZONE B" REMOVE POWER TO BOTTOM ELEMENTS/CONTROLS.

30 AMP GE DISCONNECT LOCATED ON EAST WALL REMOVES POWER TO FURNACE HOISTS.

B. PRIOR TO REMOVING POWER TO HOISTS, LID MUST BE AT LOWEST POSITION OR PINNED AT SPECIFIC HEIGHT ON FOUR POSTS WITH PINS PROVIDED.

C. NA.

D. NA.

E. NA.

F. NA.

G. NA.

H. NA.

Niagara Specialty Metals, Inc. Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for **Baghouse 2 Plate Mill**

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

- A. ELECTRICAL**
- B. POTENTIAL (STORED)
- C. KINETIC (IN MOTION)
- D. PNEUMATIC (AIR OR GAS)**
- E. HYDRAULIC
- F. THERMAL
- G. CHEMICAL
- H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

- A.** 300 AMP DISCONNECT SWITCH ON MAIN CONTROL PANEL IN SOUTH ADDITION NEXT TO #1 GAS FURNACE REMOVES POWER TO 200HP MOTOR/CONTROLS.

(2) 30 AMP SQUARE D DISCONNECTS REMOVE POWER TO THE AIR COMPRESSORS. THESE ARE LOCATED NEXT TO DUST COLLECTOR CONTROL PANEL.

- B. NA.
- C. NA.

- D.** AFTER POWER IS REMOVED TO AIR COMPRESSOR, THE SUPPLY VALVE CAN BE TURNED OFF NEXT TO EAST AIR COMPRESSOR UNDER THE DRYER AND BLEED AIR FROM THE MANIFOLDS AT WEST END OF COLLECTOR FROM THE GROUND USING THE VALVE SUPPLIED.

- E. NA.
- F. NA.
- G. NA.
- H. NA.

Niagara Specialty Metals, Inc. Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for Cincinnati 1" Shear PM

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

A. ELECTRICAL

B. POTENTIAL (STORED)

C. KINETIC (IN MOTION)

D. PNEUMATIC (AIR OR GAS)

E. HYDRAULIC

F. THERMAL

G. CHEMICAL

H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

A. 100 AMP GE DISCONNECT REMOVES POWER TO SHEAR MOTOR.

30 AMP GE DISCONNECT REMOVES POWER TO BACKSTOP MOTOR.

30 AMP SQUARE D DISCONNECT REMOVES POWER TO AIR COMPRESSOR.

ALL DISCONNECTS ARE LOCATED ON EAST WALL BEHIND SHEAR.

B. PRIOR TO REMOVING POWER TO SHEAR MOTOR, THE RAM MUST BE ALL THE WAY UP AND BLOCKED FOR SAFETY.

C. NA.

D. NA.

E. NA.

F. NA.

G. NA.

H. NA.

Niagara Specialty Metals, Inc. Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for Gas Furnace #1 PM

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

A. ELECTRICAL

B. POTENTIAL (STORED)

C. KINETIC (IN MOTION)

D. PNEUMATIC (AIR OR GAS)

E. HYDRAULIC

F. THERMAL

G. CHEMICAL

H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

A. 30 AMP SQUARE D DISCONNECT REMOVES POWER TO DOOR WINCH.

30 AMP GE DISCONNECT REMOVES POWER TO BLOWER MOTOR.

BOTH DISCONNECTS ARE LOCATED ON EAST WALL BEHIND FURNACE.

20 AMP BREAKER #17 IN MAIN LIGHTING PANEL ON WEST WALL NEAR ENTRANCE MAN DOOR REMOVES 120V POWER TO BURNER CONTROLS/FURNACE CONTROLS.

B. PRIOR TO REMOVING POWER TO WINCH MOTOR, DOOR MUST BE AT LOWEST POSITION OR SECURED AT SPECIFIC HEIGHT.

C. NA.

D. NA.

E. NA.

F. NA.

G. NA.

H. NA.

Niagara Specialty Metals, Inc. Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for **Gas Furnace #2 PM**

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

A. ELECTRICAL

B. POTENTIAL (STORED)

C. KINETIC (IN MOTION)

D. PNEUMATIC (AIR OR GAS)

E. HYDRAULIC

F. THERMAL

G. CHEMICAL

H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

A. 30 AMP SQUARE D DISCONNECT LOCATED ON SOUTH WALL BEHIND FURNACE REMOVES POWER TO BLOWER MOTOR.

30 AMP CUTLER HAMMER DISCONNECT LOCATED ON SOUTH WALL IN BILLET ROOM TO THE WEST OF GAS FURNACE #4 REMOVES POWER TO DOOR WINCH.

20 AMP BREAKER #17 IN MAIN LIGHTING PANEL ON WEST WALL NEAR ENTRANCE MAIN ENTRANCE REMOVES 120V POWER TO BURNER CONTROLS/FURNACE CONTROLS.

B. PRIOR TO REMOVING POWER TO WINCH MOTOR, DOOR MUST BE AT LOWEST POSITION OR SECURED AT SPECIFIC HEIGHT.

C. NA.

D. NA.

E. NA.

F. NA.

G. NA.

H. NA.

Niagara Specialty Metals, Inc. Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for Gas Furnace #3 PM

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

A. ELECTRICAL

B. POTENTIAL (STORED)

C. KINETIC (IN MOTION)

D. PNEUMATIC (AIR OR GAS)

E. HYDRAULIC

F. THERMAL

G. CHEMICAL

H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

A. 30 AMP SQUARE D DISCONNECT REMOVES POWER TO BLOWER MOTOR.

30 AMP SQUARE D DISCONNECT REMOVES POWER TO DOOR WINCH.

BOTH DISCONNECTS ARE LOCATED ON SOUTH WALL BEHIND FURNACE.

20 AMP BREAKER #17 IN MAIN LIGHTING PANEL ON WEST WALL NEAR ENTRANCE MAIN ENTRANCE REMOVES 120V POWER TO BURNER CONTROLS/FURNACE CONTROLS.

B. PRIOR TO REMOVING POWER TO WINCH MOTOR, DOOR MUST BE AT LOWEST POSITION OR SECURED AT SPECIFIC HEIGHT.

C. NA.

D. NA.

E. NA.

F. NA.

G. NA.

H. NA.

Niagara Specialty Metals, Inc.

Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for Gas Furnace #4 PM

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

A. ELECTRICAL

B. POTENTIAL (STORED)

C. KINETIC (IN MOTION)

D. PNEUMATIC (AIR OR GAS)

E. HYDRAULIC

F. THERMAL

G. CHEMICAL

H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

A. 30 AMP GE DISCONNECT REMOVES POWER TO BLOWER MOTOR.

30 AMP SQUARE D DISCONNECT REMOVES POWER TO DOOR WINCH.

BOTH DISCONNECTS ARE LOCATED ON SOUTH WALL BEHIND FURNACE.

20 AMP BREAKER #17 IN MAIN LIGHTING PANEL ON WEST WALL NEAR ENTRANCE MAIN ENTRANCE REMOVES 120V POWER TO BURNER CONTROLS/FURNACE CONTROLS.

B. PRIOR TO REMOVING POWER TO WINCH MOTOR, DOOR MUST BE AT LOWEST POSITION OR SECURED AT SPECIFIC HEIGHT.

C. NA.

D. NA.

E. NA.

F. NA.

G. NA.

H. NA.

Niagara Specialty Metals, Inc.

Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for **L&L #6 Electric Furnace** PM

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

- A. ELECTRICAL**
- B. POTENTIAL (STORED)
- C. KINETIC (IN MOTION)
- D. PNEUMATIC (AIR OR GAS)**
- E. HYDRAULIC
- F. THERMAL
- G. CHEMICAL
- H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

- A.** 400 AMP SQUARE D I-LINE BREAKER IN MAIN 1200 AMP PANEL ON NORTH WALL BY MAIN ENTRANCE REMOVES POWER TO FURNACE ELEMENTS/ CONTROLS.

- B. NA.
- C. NA.

- D.** THE AIR SUPPLY WHICH CONTROLS THE DOOR CYLINDER SHOULD ALSO BE DISCONNECTED USING THE QUICK CONNECT ONLY AFTER DOOR IS AT LOWEST POSITION OR SECURED AT A SPECIFIC HEIGHT.

- E. NA.
- F. NA.
- G. NA.
- H. NA.

Niagara Specialty Metals, Inc.

Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for **L&L #7 Electric Furnace** PM

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

- A. ELECTRICAL**
- B. POTENTIAL (STORED)
- C. KINETIC (IN MOTION)
- D. PNEUMATIC (AIR OR GAS)**
- E. HYDRAULIC
- F. THERMAL
- G. CHEMICAL
- H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

- A.** 225 AMP SQUARE D I-LINE BREAKER LOCATED IN THE MAIN 1200 AMP PANEL ON NORTH WALL BY MAIN ENTRANCE REMOVES POWER TO FURNACE ELEMENTS/ CONTROLS.
- B. NA.
- C. NA.
- D.** THE AIR SUPPLY WHICH CONTROLS THE DOOR CYLINDER SHOULD ALSO BE DISCONNECTED USING THE QUICK CONNECT ONLY AFTER DOOR IS AT LOWEST POSITION OR SECURED AT A SPECIFIC HEIGHT.
- E. NA.
- F. NA.
- G. NA.
- H. NA.

Niagara Specialty Metals, Inc. Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for McKay Flattener PM

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

- A. ELECTRICAL
- B. POTENTIAL (STORED)
- C. KINETIC (IN MOTION)
- D. PNEUMATIC (AIR OR GAS)
- E. HYDRAULIC
- F. THERMAL
- G. CHEMICAL
- H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

- A. 200 AMP SQUARE D DISCONNECT LOCATED ON WEST WALL ON THE NORTH SIDE OF FLATTENER REMOVES POWER TO FLATTENER MOTOR.

70 AMP BREAKER IN WESTINGHOUSE 3-PHASE PANEL ON NORTH WALL ON NORTH SIDE OF FLATTENER REMOVES POWER TO FLATTENER SCREW-DOWN MOTORS/CONTROLS.

20 AMP BREAKER IN WESTINGHOUSE 3-PHASE PANEL ON NORTH WALL ON NORTH SIDE OF FLATTENER REMOVES POWER TO HYDRAULIC PUMP/TABLE CONTROLS.

- B. NA.
- C. NA.
- D. NA.
- E. NA.
- F. NA.
- G. NA.
- H. NA.

Niagara Specialty Metals, Inc.

Emergency/Lockout-Tagout Procedures

Date Printed: 5/20/2010

Emergency/Normal/Lockout-Tagout Procedures for **Rolling Mill** 1 PM

Primary contact: TOM MACKIN

Primary contact phone 1: (716)704-6385

Primary contact phone 2: (716)772-5074

Backup contact: BOB SHABALA

Backup contact phone 1: (716)542-5552

Backup contact phone 2: (716)472-6672

Emergency Procedure:

EMPLOYEES SHALL NOTIFY PRIMARY OR BACKUP CONTACT IN THE CASE OF AN EMERGENCY.

Standard Procedure:

AFFECTED EMPLOYEES SHALL TURN MACHINE OFF, ATTACH A "DO NOT OPERATE" SIGN, AND NOTIFY MAINTENANCE IF THERE IS A SAFETY, QUALITY OR POSSIBILITY OF MACHINE DAMAGE PROBLEM.

Lockout/Tagout Procedure:

LOCKOUT TAGOUT SHALL ONLY BE PERFORMED BY AUTHORIZED EMPLOYEES

1. NOTIFY AFFECTED EMPLOYEES/ SUPERVISOR
2. SHUT DOWN EQUIPMENT
3. ISOLATE ALL ENERGY TO EQUIPMENT
4. LOCK AND TAG ENERGY CONTROLS AND KEEP KEYS IN YOUR POSSESSION
5. FILL OUT TAG WITH YOUR NAME/DATE
6. RELEASE ANY STORED OR RESIDUAL ENERGY
7. TEST CONTROLS TO ENSURE INADVERTENT START UP IS NOT POSSIBLE

RESTORING FROM LOCKOUT/TAGOUT

1. NOTIFY AFFECTED EMPLOYEES THAT LOCKS AND TAGS WILL BE REMOVED
2. CHECK EQUIPMENT TO ENSURE ALL GUARDS ARE IN PLACE AND TOOLS ARE REMOVED
3. ENSURE CONTROLS ARE IN THE NEUTRAL OR OFF POSITION
4. REMOVE ANY DO NOT OPERATE SIGNS

TYPE OF ENERGY

- A. ELECTRICAL**
- B. POTENTIAL (STORED)
- C. KINETIC (IN MOTION)
- D. PNEUMATIC (AIR OR GAS)
- E. HYDRAULIC**
- F. THERMAL
- G. CHEMICAL
- H. SPECIAL HAZARDS

ISOLATION LOCATION/PROCEDURE/TYPE OF DEVICE

- A.** 800 AMP SWITCH ON THE LIMITAMP MOTOR CONTROL CENTER AT EAST END OF ROLLING MILL ON NORTH SIDE OF 1500HP MOTOR REMOVES POWER TO 1500HP MOTOR.

100 AMP WESTINGHOUSE BREAKER IN WESTINGHOUSE 480V PANEL (SUB-PANEL 1) ON WEST WALL BY MAIN ENTRANCE, WEST OF MAIN 1200 AMP I-LINE PANEL REMOVES POWER TO PINION OIL PUMP, BULL GEAR OIL PUMP, AND COOLING FAN FOR 1500HP MOTOR.

30 AMP BULLDOG DISCONNECT ON EAST WALL, NORTH SIDE OF BULL GEAR REMOVES POWER TO COGGING SCREW-DOWN MOTOR.

30 AMP CUTLER HAMMER DISCONNECT ON NORTH WALL, EAST OF MAIN 1200 AMP I-LINE PANEL REMOVES POWER TO FINISH SCREW-DOWN.

30 AMP SQUARE D DISCONNECT REMOVES POWER TO CATCHER'S LIFT TABLE AND ENTRY PLATFORM LIFT ON FINISH MILL.

100 AMP WESTINGHOUSE BREAKER IN WESTINGHOUSE PANEL (SUB-PANEL 2) ON NORTH WALL, NORTH OF MCKAY FLATTENER REMOVES POWER TO EXIT TABLE HYDRAULIC PUMP ON COGGING MILL.

70 AMP WESTINGHOUSE BREAKER IN WESTINGHOUSE SUB-PANEL 2 ON NORTH WALL, NORTH OF MCKAY FLATTENER REMOVES POWER TO ENTRY TABLE HYDRAULICS ON COGGING MILL.

Emergency Procedures for Rolling Mill 1 PM

Date Printed: 5/20/2010

20 AMP 120V BREAKER #25 IN MAIN LIGHTING PANEL ON WEST WALL BY MAIN
ENTRANCE REMOVES 120V POWER TO ROLLER'S
CONTROL PANEL (BOOTH)

B. NA.
C. NA.
D. NA.

E. PRIOR TO REMOVNG POWER TO HYDRAULIC TABLES, THEY MUST BE AT LOWEST POSITION OR SECURED AT SPECIFIC HEIGHT.

F. NA.
G. NA.
H. NA.