MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR MANAGEMENT

Belden Electronics Division
350 NW N Street
Richmond, Indiana 47374

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 177-11735-00003	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary electronic wire and cable manufacturing facility.

Authorized Individual:	Lyndy R. Lawlor
Source Address:	350 NW N Street, Richmond, IN 47374
Mailing Address:	P.O. Box 1980, Richmond, IN 47374
Phone Number:	(765) 962-7561
SIC Code:	3357
County Location:	Wayne
County Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD or Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(1) Five (5) natural gas-fired annealing ovens (using propane as backup fuel), identified as #01 through #05, each with a maximum heat input rate of 0.6 million (MM) British thermal units (Btu) per hour, exhausting through five (5) stacks identified as 24E-1 through 24E-5;

(2) Two (2) natural gas-fired boilers (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 and #02, each with a maximum heat input rate of 9.20 MMBtu per hour, exhausting through one (1) stack identified as IE;

(3) Four (4) natural gas-fired steam generators (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 through #04, with a maximum heat input rate of 5.02, 5.02, 6.7, and 6.7 MMBtu per hour, respectively, each exhausting through stacks 46E-1, 46E-2, 46E-3 and 1E, respectively;

(4) One (1) natural gas-fired steam generator, identified as #05, with a maximum heat input rate of 6.7 MMBtu per hour, exhausting through one (1) stack identified as 1E;

(5) One (1) natural gas-fired lacquer tower, identified as Lacquer Tower, with a maximum heat input rate of 0.63 MMBtu per hour;

(6) One (1) natural gas-fired oven, identified as Ringband Oven #01, with a maximum heat input rate of 1.68 MMBtu per hour;

(7) One (1) natural gas-fired blower, identified as Kemp Gas Machine, with a maximum heat input rate of 6.3 MMBtu per hour;

(8) Two (2) electroplating lines, identified as #01 and #02, with a combined maximum rate of electroplating 46.70 pounds (lbs) of tin per hour, utilizing one (1) wet scrubber for particulate matter control;

(9) A copper wire drawing machine process, with a maximum rate of 7340.71 lbs of copper wire per hour;

(10) A copper wire braiding machine process, with a maximum rate of 0.97 lbs of copper wire per hour;

(11) A fiberglass braider process, with a maximum rate of 13.31 lbs of copper wire per hour, utilizing dust collector #06 which uses one (1) baghouse for particulate matter control;

(12) A PVC pelletizer process, with a maximum rate of 6351.92 lbs of PVC compound per hour;

(13) A vulcanizer process, with a maximum rate of 63.87 lbs per hour;

(14) An extruder process, with a maximum rate of 7166.11 lbs of copper wire per hour, exhausting through two (2) stacks identified as 12E-4 and 22E-2;

(15) One (1) PVC Mixer, with a maximum rate of 6351.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter and HAP control;

(16) One (1) PVC compound loading process consisting of:

(a) One (1) resin ground silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #01 which uses one (1) baghouse for particulate matter and HAP control;

(b) One (1) resin rooftop silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #02 which uses one (1) baghouse for particulate matter and HAP control;

(c) One (1) filter/receiver, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #03 which uses one (1) baghouse for particulate matter and HAP control;

(d) One (1) hood, with a maximum rate of 2007.83 lbs per hour, utilizing dust collector #05 which uses one (1) baghouse for particulate matter and HAP control, exhausting through one (1) stack identified as 15E;

(e) Two (2) lead bins, with a maximum rate of 41.89 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control;

(f) Two (2) antimony bins, with a maximum rate of 71.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control;

(17) One (1) coated wire printing operation, utilizing a flowcoating system;

(18) One (1) lacquer tower, with a maximum rate of 3.47 lbs per hour; and

(19) Three (3) tanks, identified as Tank #1, Tank #2 and Tank #3, each containing fuel oil grade 2, fuel oil grade 2 and propane, respectively, each with a maximum tank capacity of 20,000 gallons, respectively.

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled “Minor Source Operating Permit”, all requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of operating permits pursuant to 326 IAC 2 (Permit Review Rules).

B.5 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section.

(1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

(2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

(e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

B.6 NSPS Reporting Requirement

Pursuant to the New Source Performance Standards (NSPS), Part 60.110c, Subpart Kb, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

(a) Commencement of construction date (no later than 30 days after such date);

(b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

(c) Actual start-up date (within 15 days after such date); and

(d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, IN 46206-6015

The application and enforcement of these standards have been delegated to the IDEM OAM. The requirements of 40 CFR Part 60 are also federally enforceable.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit of any criteria pollutant is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

(b) Any change or modification which may increase potential to emit to 100 tons per year from this source, shall cause this source to be considered a major source under Emission Offset, 326 IAC 2-3, and shall require approval from IDEM, OAM prior to making the change.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-7-6(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAM shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.9 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

Testing Requirements

C.10 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the

completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.11 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.12 Maintenance of Monitoring Equipment [IC 13-14-1-13]

(a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour (this time frame is determined on a case by case basis) until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.13 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.14 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition

of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120)

days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.16 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.17 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations,

sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.18 General Record Keeping Requirements [326 IAC 2-6.1-2]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that

failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.19 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) A malfunction as described in 326 IAC 1-6-2; or

(3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring

provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.20 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Management stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM on or before the date it is due.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description
(1) Five (5) natural gas-fired annealing ovens (using propane as backup fuel), identified as #01 through #05, each with a maximum heat input rate of 0.6 million (MM) British thermal units (Btu) per hour, exhausting through five (5) stacks identified as 24E-1 through 24E-5;
(2) Two (2) natural gas-fired boilers (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 and #02, each with a maximum heat input rate of 9.20 MMBtu per hour, exhausting through one (1) stack identified as IE;
(3) Four (4) natural gas-fired steam generators (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 through #04, with a maximum heat input rate of 5.02, 5.02, 6.7, and 6.7 MMBtu per hour, respectively, each exhausting through stacks 46E-1, 46E-2, 46E-3 and 1E, respectively;
(4) One (1) natural gas-fired steam generator, identified as #05, with a maximum heat input rate of 6.7 MMBtu per hour, exhausting through one (1) stack identified as 1E;
(5) One (1) natural gas-fired lacquer tower, identified as Lacquer Tower, with a maximum heat input rate of 0.63 MMBtu per hour;
(6) One (1) natural gas-fired oven, identified as Ringband Oven #01, with a maximum heat input rate of 1.68 MMBtu per hour; and
(7) One (1) natural gas-fired blower, identified as Kemp Gas Machine, with a maximum heat input rate of 6.3 MMBtu per hour.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.1.1 Particulate Matter Limitation (PM)

(a) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate matter (PM) from the two (2) natural gas-fired boilers (#01 and #02) shall be limited by the following:

$$Pt = 1.09/Q^{0.26}$$

where: Pt = maximum allowable particulate matter (PM) emitted per MMBtu heat input
Q = total source max. indirect heater input = #01 and #02 = 9.2 + 9.2 = 18.4 MMBtu/hr

$$Pt = 1.09/18.4^{0.26} = 0.51 \text{ lbs PM/MMBtu}$$

Therefore, the boiler is limited to 0.51 lbs PM/MMBtu

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the two (2) boilers (#01 and #02) and the four (4) steam generators (#01 through #04).

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description
(8) Two (2) electroplating lines, identified as #01 and #02, with a combined maximum rate of electroplating 46.70 pounds (lbs) of tin per hour, utilizing one (1) wet scrubber for particulate matter control, exhausting through one (1) stack identified as 26E;
(9) A copper wire drawing machine process, with a maximum rate of 7340.71 lbs of copper wire per hour;
(10) A copper wire braiding machine process, with a maximum rate of 0.97 lbs of copper wire per hour;
(11) A fiberglass braider process, with a maximum rate of 13.31 lbs of copper wire per hour, utilizing dust collector #06 which uses one (1) baghouse for particulate matter control;
(12) A PVC pelletizer process, with a maximum rate of 6351.92 lbs of PVC compound per hour;
(13) A vulcanizer process, with a maximum rate of 63.87 lbs per hour;
(14) An extruder process, with a maximum rate of 7166.11 lbs of copper wire per hour, exhausting through two (2) stacks identified as 12E-4 and 22E-2;
(15) One (1) PVC Mixer, with a maximum rate of 6351.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter and HAP control;
(16) One (1) PVC compound loading process consisting of:
  (a) One (1) resin ground silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #01 which uses one (1) baghouse for particulate matter and HAP control;
  (b) One (1) resin rooftop silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #02 which uses one (1) baghouse for particulate matter and HAP control;
  (c) One (1) filter/receiver, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #03 which uses one (1) baghouse for particulate matter and HAP control;
  (d) One (1) hood, with a maximum rate of 2007.83 lbs per hour, utilizing dust collector #05 which uses one (1) baghouse for particulate matter and HAP control, exhausting through one (1) stack identified as 15E;
  (e) Two (2) lead bins, with a maximum rate of 41.89 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control; and
  (f) Two (2) antimony bins, with a maximum rate of 71.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.2.1 Particulate Matter (PM) [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the two (2) electroplating lines shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

$E = 4.10*(0.02335)^{0.67} = 0.33$ lbs PM/hour

Based on the above equation, particulate matter emissions from the two (2) electroplating lines shall be limited to 0.33 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the copper wire drawing machine shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

$E = 4.10*(3.67)^{0.67} = 9.80$ lbs PM/hour

Based on the above equation, particulate matter emissions from the copper wire drawing machine shall be limited to 0.33 pounds per hour.

(c) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the one (1) fiberglass braider shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

$E = 4.10*(6.65E\text{-}3)^{0.67} = 0.14$ lbs PM/hour

Based on the above equation, particulate matter emissions from the one (1) fiberglass braider shall be limited to 0.14 pounds per hour.

(d) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the PVC pelletizer process shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

$E = 4.10*(3.17)^{0.67} = 8.88$ lbs PM/hour

Based on the above equation, particulate matter emissions from the PVC pelletizer shall be limited to 8.88 pounds per hour.

(e) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the vulcanizer process shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

$E = 4.10*(3.19E\text{-}2)^{0.67} = 0.41$ lbs PM/hour

Based on the above equation, particulate matter emissions from the vulcanizer process shall be limited to 0.41 pounds per hour.

(f) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the extruder process shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(3.58)^{0.67} = 9.64$ lbs PM/hour

Based on the above equation, particulate matter emissions from the extruder process shall be limited to 9.64 pounds per hour.

(g) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the PVC Mixer process shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(3.17)^{0.67} = 8.88$ lbs PM/hour

Based on the above equation, particulate matter emissions from the PVC Mixer shall be limited to 8.88 pounds per hour.

(h) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the PVC Compound loading process shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(3.17)^{0.67} = 8.88$ lbs PM/hour

Based on the above equation, particulate matter emissions from the PVC Compound loading process shall be limited to 8.88 pounds per hour.

Compliance Determination Requirements

D.2.2 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require

compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the limit specified in Condition D.10.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.3 Particulate Matter (PM)

(a) The baghouses for PM control shall be in operation at all times that the one (1) fiberglass braider, one (1) PVC mixer, one (1) resin ground silo, one (1) resin rooftop silo, one (1) filter/receiver, one (1) hood, two (2) lead bins and two (2) antimony bins are in operation.

(b) The wet scrubber for PM control shall be in operation at all times that the two (2) electroplating lines are in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.4 Visible Emissions Notations

(a) Monthly visible emission notations of the two (2) electroplating lines stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.2.5 Parametric Monitoring

(a) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the one (1) fiberglass braider, one (1) PVC mixer, one (1) resin ground silo, one (1) resin rooftop silo, one (1) filter/receiver, one (1) hood, two (2) lead bins and two (2) antimony bins at least once weekly when the one (1) fiberglass braider, one (1) PVC mixer, one (1) resin ground silo, one (1) resin rooftop silo, one (1) filter/receiver, one (1) hood, two (2) lead bins and two (2) antimony bins are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 1.0 - 4.0, 1.3 - 3.0, 17.0, 17.0, 17.0, 0.0 - 10.1, 1.3 - 3.0, and 1.3 - 3.0 inches of water, respectively or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

(b) The Permittee shall record the total static pressure drop across the wet scrubber and the liquid flow rate used in conjunction with the two (2) electroplating lines, weekly when the two (2) electroplating lines are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the wet

scrubber shall be maintained within the range of 3.0 inches of water or a range established during the latest stack test and the flow rate shall be maintained at no less than 36.0 gallons per minute or a flow rate established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading or flow rate is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.2.6 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the one (1) fiberglass braider, one (1) PVC mixer, one (1) resin ground silo, one (1) resin rooftop silo, one (1) filter/receiver, one (1) hood, two (2) lead bins and two (2) antimony bins when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.2.8 Wet Scrubber Inspections

An inspection shall be performed each calender quarter of the wet scrubber controlling the two (2) electroplating lines when venting to the atmosphere. A wet scrubber inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All leakage shall be repaired.

D.2.9 Failure Detection

In the event that wet scrubber failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have

been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

SECTION D.3 Emissions unit OPERATION CONDITIONS

Emissions Unit Description
(17) One (1) coated wire printing operation, utilizing a flowcoating system; and
(18) One (1) lacquer tower, with a maximum rate of 3.47 lbs per hour.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.3.1 Particulate Matter (PM) [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the coated wire printing operation shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.3.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the coated wire printing operation.

Compliance Determination Requirements

D.3.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

SECTION D.4 Emissions unit OPERATION CONDITIONS

Emissions Unit Description
(19) Three (3) tanks, identified as Tank #1, Tank #2 and Tank #3, each containing fuel oil grade 2, fuel oil grade 2 and propane, respectively, each with a maximum tank capacity of 20,000 gallons, respectively.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.4.1 Volatile Organic Liquid Storage Vessel [326 IAC 12][40 CFR 60.110, Subpart Kb]

Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the two (2) 20,000 gallon grade 2 fuel oil storage tanks are subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110c, Subpart Kb) because the tank was constructed after July 23, 1984, and has a storage capacity greater than 40 cubic meters. However, since the tank has a storage capacity greater than 75 cubic meters but less than 151 cubic meters, the tank is subject to only 40 CFR Part 60.116b, paragraphs (a), (b), and (c) which require record keeping.

D.4.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.4.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the limit specified in Condition D.6.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping Requirements

D.4.4 Record Keeping Requirements [326 IAC 12]

(a) To document compliance with Condition D.4.1, the Permittee shall maintain permanent records at the source in accordance with (1) and (2) below for Tank T006:

(1) The dimension of the storage vessel; and

(2) An analysis showing the capacity of the storage vessel;

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	**Belden Electronics Division**
Address:	**350 NW N Street, Richmond, IN 47374**
City:	**Richmond**
Phone #:	**(765) 962-7561**
MSOP #:	**177-11735-00003**

I hereby certify that Belden Electronics Divison is
9 still in operation.
9 no longer in operation.

I hereby certify that Belden Electronics Division is
9 in compliance with the requirements of MSOP 177-11735-00003.
9 not in compliance with the requirements of MSOP 177-11735-00003.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions

applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____
_____

Indiana Department of Environmental Management
Office of Air Management

Addendum to the
Technical Support Document for a Minor Source Operating Permit (MSOP)

Source Name: Belden Electronics Division
Source Location: 350 NW N Street, Richmond, IN 47374
SIC Code: 3357
County: Wayne
Operation Permit No.: MSOP 177-11735-00003
Permit Reviewer: Nishat Hydari /EVP

On April 19, 2000, the Office of Air Management (OAM) had a notice published in the Palladium Item, Richmond, Indiana, stating that Belden Electronics Division had applied for a Minor Source Operating Permit (MSOP) to operate an electronic wire and cable manufacturing facility. The notice also stated that OAM proposed to issue a MSOP for this operation and provided information on how the public could review the proposed MSOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this MSOP should be issued as proposed.

On September 20, 2000, Lyndy Lawlor of Belden Electronics Division submitted comments on the proposed MSOP. The summary of the comments and corresponding responses is as follows (**bolded** language has been added, the language with a ~~line~~ through it has been deleted):

Upon further review, the OAM has decided to make the following revisions to the permit:

1. The natural gas fired boiler certification form has been deleted from the MSOP permit because the source is not required to do any reporting for the boilers present at the facility.

Comment 1

Section A
Page 4, A.2 Emission Units and Control Equipment Summary

(1) The last sentence should read that the number of stacks is 5 not (1), and the stack ID should be 24E1-5 not 24E-5.

(9) through (14) The description for each summary specifies one machine or process. The actual number of machines varies for each process. Replace the number (1) with the term “process” for each summary.

Response 1

The following unit description revisions have been made to Section A.2.

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(1) Five (5) natural gas-fired annealing ovens (using propane as backup fuel), identified as #01 through #05, each with a maximum heat input rate of 0.6 million (MM) British thermal units (Btu) per hour, exhausting through ~~one~~ **five** (~~1~~**5**) stack**s** identified as **24E-1 through** 24E-5;

(2) Two (2) natural gas-fired boilers (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 and #02, each with a maximum heat input rate of 9.20 MMBtu per hour, exhausting through one (1) stack identified as IE;

(3) Four (4) natural gas-fired steam generators (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 through #04, with a maximum heat input rate of 5.02, 5.02, 6.7, and 6.7 MMBtu per hour, respectively, each exhausting through stacks 46E-~~3~~**1**, 46E-~~3~~**2**, 46E-3 and 1E, respectively;

(4) One (1) natural gas-fired steam generator, identified as #05, with a maximum heat input rate of 6.7 MMBtu per hour, exhausting through one (1) stack identified as 1E;

(5) One (1) natural gas-fired lacquer tower, identified as Lacquer Tower, with a maximum heat input rate of 0.63 MMBtu per hour;

(6) One (1) natural gas-fired oven, identified as Ringband Oven #01, with a maximum heat input rate of 1.68 MMBtu per hour;

(7) One (1) natural gas-fired blower, identified as Kemp Gas Machine, with a maximum heat input rate of 6.3 MMBtu per hour;

(8) Two (2) electroplating lines, identified as #01 and #02, with a combined maximum rate of electroplating 46.70 pounds (lbs) of tin per hour, utilizing one (1) wet scrubber for particulate matter control;

(9) ~~One (1)~~ **A** copper wire drawing machine **process**, with a maximum rate of 7340.71 lbs of copper wire per hour;

(10) ~~One (1)~~ **A** copper wire braiding machine **process**, with a maximum rate of 0.97 lbs of copper wire per hour;

(11) ~~One (1)~~ **A** fiberglass braider **process**, with a maximum rate of 13.31 lbs of copper wire per hour, utilizing dust collector #06 which uses one (1) baghouse for particulate matter control;

(12) ~~One (1)~~ **A** PVC pelletizer process, with a maximum rate of 6351.92 lbs of ~~copper wire~~ **PVC compound** per hour;

(13) ~~One (1)~~ **A** vulcanizer process, with a maximum rate of 63.87 lbs per hour;

(14) ~~One (1)~~ **An** extruder process, with a maximum rate of 7166.11 lbs of copper wire per hour, exhausting through two (2) stacks identified as 12E-4 and 22E-2;

(15) One (1) PVC Mixer, with a maximum rate of 6351.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter and HAP control;

(16) One (1) PVC compound loading process consisting of:

(a) One (1) resin ground silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #01 which uses one (1) baghouse for particulate matter and HAP control;

(b) One (1) resin rooftop silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #02 which uses one (1) baghouse for particulate matter and HAP control;

(c) One (1) filter/receiver, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #03 which uses one (1) baghouse for particulate matter and HAP control;

(d) One (1) hood, with a maximum rate of 2007.83 lbs per hour, utilizing dust collector #05 which uses one (1) baghouse for particulate matter and HAP control, exhausting through one (1) stack identified as 15E;

(e) Two (2) lead bins, with a maximum rate of 41.89 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control;

(f) Two (2) antimony bins, with a maximum rate of 71.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control;

(17) One (1) coated wire printing operation, utilizing a flowcoating system;

(18) One (1) lacquer tower, with a maximum rate of 3.47 lbs per hour; and

(19) Three (3) tanks, identified as Tank #1, Tank #2 and Tank #3, each containing fuel oil grade 2, fuel oil grade 2 and propane, respectively, each with a maximum tank capacity of 20,000 gallons, respectively.

Comment 2

Section D.1
Page 17, Emission Unit Description

(1) The last sentence reading “exhausting through one (1) stack identified as 24E-5.”, should be (5) stacks identified as stacks 24E-1 through 24E-5.

(3) The last sentence reading “each exhausting through stacks 46E-3, 46E-3, 46E-3 and 1E, respectively”, should be through stacks 46E-1, 46E-2, 46E-3 and 1E, respectively.

Response 2

The following changes have been made to Section D.1.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description
(1) Five (5) natural gas-fired annealing ovens (using propane as backup fuel), identified as #01 through #05, each with a maximum heat input rate of 0.6 million (MM) British thermal units (Btu) per hour, exhausting through ~~one~~ **five** (~~1~~**5**) stack**s** identified as **24E-1 through** 24E-5;
(2) Two (2) natural gas-fired boilers (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 and #02, each with a maximum heat input rate of 9.20 MMBtu per hour, exhausting through one (1) stack identified as IE;
(3) Four (4) natural gas-fired steam generators (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 through #04, with a maximum heat input rate of 5.02, 5.02, 6.7, and 6.7 MMBtu per hour, respectively, each exhausting through stacks 46E-~~3~~**1**, 46E-~~3~~**2**, 46E-3 and 1E, respectively;
(4) One (1) natural gas-fired steam generator, identified as #05, with a maximum heat input rate of 6.7 MMBtu per hour, exhausting through one (1) stack identified as 1E;
(5) One (1) natural gas-fired lacquer tower, identified as Lacquer Tower, with a maximum heat input rate of 0.63 MMBtu per hour;
(6) One (1) natural gas-fired oven, identified as Ringband Oven #01, with a maximum heat input rate of 1.68 MMBtu per hour; and
(7) One (1) natural gas-fired blower, identified as Kemp Gas Machine, with a maximum heat input rate of 6.3 MMBtu per hour.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Comment 3

Section D.1.4
Page 18, Compliance Monitoring Requirements

(a) Belden proposes that the requirement for daily visual emission notations be eliminated due to the sources being natural gas fired. Should the boilers and steam generators be required to run on backup fuel oil, then visual emission notations should be required on a daily basis.

Response 3

Since there are no other emissions but the emissions from combustion, Section D.1.4 (Visible Emissions Notations) will be removed from the permit.

~~**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**~~

~~D.1.4 Visible Emissions Notations~~

~~(a) Visible emission notations of the five (5) annealing ovens, two (2) boilers and the five (5) steam generators stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.~~

Comment 4

Section D.2
Page 19, Emissions Unit Description

(9), (10) and (11) The descriptions for each emission unit refer to one machine. The number of machines varies with each process. Replace the number (1) with the term "process" for each description.

(12) The PVC pelletizer process refers to lbs of PVC compound not copper wire. Remove the term "copper wire" from the description.

Response 4

The following changes have been made to Section D.2.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description

(8) Two (2) electroplating lines, identified as #01 and #02, with a combined maximum rate of electroplating 46.70 pounds (lbs) of tin per hour, utilizing one (1) wet scrubber for particulate matter control, exhausting through one (1) stack identified as 26E;

(9) ~~One (1)~~ **A** copper wire drawing machine **process**, with a maximum rate of 7340.71 lbs of copper wire per hour;

(10) ~~One (1)~~ **A** copper wire braiding machine **process**, with a maximum rate of 0.97 lbs of copper wire per hour;

(11) ~~One (1)~~ **A** fiberglass braider **process**, with a maximum rate of 13.31 lbs of copper wire per hour, utilizing dust collector #06 which uses one (1) baghouse for particulate matter control;

(12) ~~One (1)~~ **A** PVC pelletizer process, with a maximum rate of 6351.92 lbs of ~~copper wire~~ **PVC compound** per hour;

(13) ~~One (1)~~ **A** vulcanizer process, with a maximum rate of 63.87 lbs per hour;

(14) ~~One (1)~~ **An** extruder process, with a maximum rate of 7166.11 lbs of copper wire per hour, exhausting through two (2) stacks identified as 12E-4 and 22E-2;

(15) One (1) PVC Mixer, with a maximum rate of 6351.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter and HAP control;

(16) One (1) PVC compound loading process consisting of:

- (a) One (1) resin ground silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #01 which uses one (1) baghouse for particulate matter and HAP control;
- (b) One (1) resin rooftop silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #02 which uses one (1) baghouse for particulate matter and HAP control;
- (c) One (1) filter/receiver, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #03 which uses one (1) baghouse for particulate matter and HAP control;
- (d) One (1) hood, with a maximum rate of 2007.83 lbs per hour, utilizing dust collector #05 which uses one (1) baghouse for particulate matter and HAP control, exhausting through one (1) stack identified as 15E;
- (e) Two (2) lead bins, with a maximum rate of 41.89 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control; and
- (f) Two (2) antimony bins, with a maximum rate of 71.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Comment 5

Section D.2.4
Page 22, Visible Emissions Notations

(a) Belden proposes that the requirement for daily visual emission notations be reduced to monthly visible emissions notations for the electroplating lines. A hood stack exhaust does not exist in association with the plating lines, and should be eliminated from the requirements.

Response 5

Section D.2.4 has been revised to exclude the hood stack exhaust and to change the visible emission notations from daily to monthly. The following changes have been made to Section D.2.4.

D.2.4 Visible Emissions Notations

(a) ~~Daily~~ **Monthly** visible emission notations of the two (2) electroplating lines ~~and one (1) hood~~ stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

Comment 6

Section D.2.5
Page 22, Parametric Monitoring

(a) Belden proposes that the requirement for daily parametric monitoring be reduced to monthly monitoring for the required baghouses.

(b) Belden proposes that the requirement for daily parametric monitoring be reduced to monthly monitoring for the electroplating line wet scrubber.

Response 6

Upon further review, the IDEM, OAM has decided to keep the requirement for parametric monitoring for the baghouses to weekly and has decided to change the requirement for daily parametric monitoring for the electroplating line wet scrubber to weekly. The following changes have been made to Section D.2.5.

D.2.5 Parametric Monitoring

(a) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the one (1) fiberglass braider, one (1) PVC mixer, one (1) resin ground silo, one (1) resin rooftop silo, one (1) filter/receiver, one (1) hood, two (2) lead bins and two (2) antimony bins at least once weekly when the one (1) fiberglass braider, one (1) PVC mixer, one (1) resin ground silo, one (1) resin rooftop silo, one (1) filter/receiver, one (1) hood, two (2) lead bins and two (2) antimony bins are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 1.0 - 4.0, 1.3 - 3.0, 17.0, 17.0, 17.0, 0.0 - 10.1, 1.3 - 3.0, and 1.3 - 3.0 inches of water, respectively or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

(b) The Permittee shall record the total static pressure drop across the wet scrubber and the liquid flow rate used in conjunction with the two (2) electroplating lines, ~~at least once daily~~ **weekly** when the two (2) electroplating lines are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the wet scrubber shall be maintained within the range of 3.0 inches of water or a range established during the latest stack test and the flow rate shall be maintained at no less than 36.0 gallons per minute or a flow rate established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading or flow rate is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

Comment 7

Section D.3.2 Magnet Wire Coating Operations

(a), (b) The coating of insulated communication wire with lacquer is not a magnet wire coating operation and should not be regulated as such. Belden proposes that the Magnet Wire Coating Operation regulations be eliminated from the permit.

Response 7

Since the coating of insulated communication wire with lacquer is not a magnet wire coating operation, Section D.3.2 will be removed from the permit. The remaining conditions will be re-numbered accordingly.

The source is not subject to any 326 IAC 8 rules. 326 IAC 8-2-9 does not apply because the source does not coat miscellaneous metal products. 326 IAC 8-1-6 does not apply because the emissions from coated wire printing and the lacquer tower are less than 25 tons per year.

~~D.3.2 Magnet Wire Coating Operations [326 IAC 8-2-8]~~

~~(a) This section establishes the emission limitations for the process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.~~

~~(b) No owner or operator of a magnet wire coating oven subject to this section may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of 0.20 kilograms per liter of coating (1.7 pounds per gallon) excluding water, delivered to the coating applicator from magnet wire coating operations.~~

Comment 8

Section 4.2 Preventive Maintenance Plan

The reference to Section C - Preventive Maintenance Plan should be to Section B - Preventive Maintenance Plan, of this permit.

Response 8

The reference is to Section B - Preventive Maintenance Plan. No changes have been made as a result of this comment.

The following revisions have been made to the Technical Support Document under the appropriate sections (**bolded** language has been added, the language with a ~~line~~ through it has been deleted). The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(1) Five (5) natural gas-fired annealing ovens (using propane as backup fuel), identified as #01 through #05, each with a maximum heat input rate of 0.6 million (MM) British thermal units (Btu) per hour, exhausting through ~~one~~ **five** (~~1~~**5**) stack**s** identified as **24E-1 through** 24E-5;

(2) Two (2) natural gas-fired boilers (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 and #02, each with a maximum heat input rate of 9.20 MMBtu per hour, exhausting through one (1) stack identified as IE;

(3) Four (4) natural gas-fired steam generators (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 through #04, with a maximum heat input rate of 5.02, 5.02, 6.7, and 6.7 MMBtu per hour, respectively, each exhausting through stacks 46E-~~3~~**1**, 46E-~~3~~**2**, 46E-3 and 1E, respectively;

(4) One (1) natural gas-fired steam generator, identified as #05, with a maximum heat input rate of 6.7 MMBtu per hour, exhausting through one (1) stack identified as 1E;

(5) One (1) natural gas-fired lacquer tower, identified as Lacquer Tower, with a maximum heat input rate of 0.63 MMBtu per hour;

(6) One (1) natural gas-fired oven, identified as Ringband Oven #01, with a maximum heat input rate of 1.68 MMBtu per hour;

(7) One (1) natural gas-fired blower, identified as Kemp Gas Machine, with a maximum heat input rate of 6.3 MMBtu per hour;

(8) Two (2) electroplating lines, identified as #01 and #02, with a combined maximum rate of electroplating 46.70 pounds (lbs) of tin per hour, utilizing one (1) wet scrubber for particulate matter control, exhausting through one (1) stack identified as 26E;

(9) ~~One (1)~~ **A** copper wire drawing machine **process**, with a maximum rate of 7340.71 lbs of copper wire per hour;

(10) ~~One (1)~~ **A** copper wire braiding machine **process**, with a maximum rate of 0.97 lbs of copper wire per hour;

(11) ~~One (1)~~ **A** fiberglass braider **process**, with a maximum rate of 13.31 lbs of copper wire per hour, utilizing dust collector #06 which uses one (1) baghouse for particulate matter control;

(12) ~~One (1)~~ **A** PVC pelletizer process, with a maximum rate of 6351.92 lbs of ~~copper wire~~ **PVC compound** per hour;

(13) ~~One (1)~~ **A** vulcanizer process, with a maximum rate of 63.87 lbs per hour;

(14) ~~One (1)~~ **An** extruder process, with a maximum rate of 7166.11 lbs of copper wire per hour, exhausting through two (2) stacks identified as 12E-4 and 22E-2;

(15) One (1) PVC Mixer, with a maximum rate of 6351.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter and HAP control;

(16) One (1) PVC compound loading process consisting of:

(a) One (1) resin ground silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #01 which uses one (1) baghouse for particulate matter and HAP control;

(b) One (1) resin rooftop silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #02 which uses one (1) baghouse for particulate matter and HAP control;

(c) One (1) filter/receiver, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #03 which uses one (1) baghouse for particulate matter and HAP control;

(d) One (1) hood, with a maximum rate of 2007.83 lbs per hour, utilizing dust collector #05 which uses one (1) baghouse for particulate matter and HAP control, exhausting through one (1) stack identified as 15E;

(e) Two (2) lead bins, with a maximum rate of 41.89 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control;

(f) Two (2) antimony bins, with a maximum rate of 71.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control;

(17) One (1) coated wire printing operation, utilizing a flowcoating system;

(18) One (1) lacquer tower, with a maximum rate of 3.47 lbs per hour; and

(19) Three (3) tanks, identified as Tank #1, Tank #2 and Tank #3, each containing fuel oil grade 2, fuel oil grade 2 and propane, respectively, each with a maximum tank capacity of 20,000 gallons, respectively.

State Rule Applicability - Individual Facilities

~~326 IAC 8-2-8 (Magnet Wire Coating Operations)~~

~~(a) This section establishes the emission limitations for the process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.~~

~~(b) No owner or operator of a magnet wire coating oven subject to this section may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of 0.20 kilograms per liter of coating (1.7 pounds per gallon) excluding water, delivered to the coating applicator from magnet wire coating operations.~~

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name: Belden Electronics Division
Source Location: 350 NW N Street, Richmond, IN 47374
County: Wayne
SIC Code: 3357
Operation Permit No.: MSOP 177-11735-00003
Permit Reviewer: Nishat Hydari / EVP

The Office of Air Management (OAM) has reviewed an application from Belden Electronics Division relating to the operation of an electronic wire and cable manufacturing facility.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(1) Five (5) natural gas-fired annealing ovens (using propane as backup fuel), identified as #01 through #05, each with a maximum heat input rate of 0.6 million (MM) British thermal units (Btu) per hour, exhausting through one (1) stack identified as 24E-5;

(2) Two (2) natural gas-fired boilers (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 and #02, each with a maximum heat input rate of 9.20 MMBtu per hour, exhausting through one (1) stack identified as IE;

(3) Four (4) natural gas-fired steam generators (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.21%), identified as #01 through #04, with a maximum heat input rate of 5.02, 5.02, 6.7, and 6.7 MMBtu per hour, respectively, each exhausting through stacks 46E-3, 46E-3, 46E-3 and 1E, respectively;

(4) One (1) natural gas-fired steam generator, identified as #05, with a maximum heat input rate of 6.7 MMBtu per hour, exhausting through one (1) stack identified as 1E;

(5) One (1) natural gas-fired lacquer tower, identified as Lacquer Tower, with a maximum heat input rate of 0.63 MMBtu per hour;

(6) One (1) natural gas-fired oven, identified as Ringband Oven #01, with a maximum heat input rate of 1.68 MMBtu per hour;

(7) One (1) natural gas-fired blower, identified as Kemp Gas Machine, with a maximum heat input rate of 6.3 MMBtu per hour;

(8) Two (2) electroplating lines, identified as #01 and #02, with a combined maximum rate of electroplating 46.70 pounds (lbs) of tin per hour, utilizing one (1) wet scrubber for particulate matter control, exhausting through one (1) stack identified as 26E;

(9) One (1) copper wire drawing machine, with a maximum rate of 7340.71 lbs of copper wire per hour;

(10) One (1) copper wire braiding machine, with a maximum rate of 0.97 lbs of copper wire per hour;

(11) One (1) fiberglass braider, with a maximum rate of 13.31 lbs of copper wire per hour, utilizing dust collector #06 which uses one (1) baghouse for particulate matter control;

(12) One (1) PVC pelletizer process, with a maximum rate of 6351.92 lbs of copper wire per hour;

(13) One (1) vulcanizer process, with a maximum rate of 63.87 lbs per hour;

(14) One (1) extruder process, with a maximum rate of 7166.11 lbs of copper wire per hour, exhausting through two (2) stacks identified as 12E-4 and 22E-2;

(15) One (1) PVC Mixer, with a maximum rate of 6351.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter and HAP control;

(16) One (1) PVC compound loading process consisting of:

(a) One (1) resin ground silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #01 which uses one (1) baghouse for particulate matter and HAP control;

(b) One (1) resin rooftop silo, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #02 which uses one (1) baghouse for particulate matter and HAP control;

(c) One (1) filter/receiver, with a maximum rate of 4230.28 lbs per hour, utilizing dust collector #03 which uses one (1) baghouse for particulate matter and HAP control;

(d) One (1) hood, with a maximum rate of 2007.83 lbs per hour, utilizing dust collector #05 which uses one (1) baghouse for particulate matter and HAP control, exhausting through one (1) stack identified as 15E;

(e) Two (2) lead bins, with a maximum rate of 41.89 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control;

(f) Two (2) antimony bins, with a maximum rate of 71.92 lbs per hour, utilizing dust collector #04 which uses one (1) baghouse for particulate matter control;

(17) One (1) coated wire printing operation, utilizing a flowcoating system;

(18) One (1) lacquer tower, with a maximum rate of 3.47 lbs per hour; and

(19) Three (3) tanks, identified as Tank #1, Tank #2 and Tank #3, each containing fuel oil grade 2, fuel oil grade 2 and propane, respectively, each with a maximum tank capacity of 20,000 gallons, respectively.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) OP 89-01-90-0177, issued on March 18, 1986;

(b) Exemption 177-2970-00003, issued on June 10, 1993;

(c) Exemption 177-3107-00003, issued on September 17, 1993;

(d) Registration 177-4332-00003, issued on February 20, 1995;

(e) Amendment 177-9290-00003, issued on March 24, 1998; and

(f) Registration 177-9831-00003, issued on June 26, 1998.

All conditions from previous approvals were incorporated into this permit.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
1E	Boilers #01 & #02, Steam generators #04 & #05	100	5	3500	500
10E	Evaporator exhaust	30	1.5	1500	800
11E	Ventilation exhasut	28	0.5	200	Ambient
12E-4	Extruder process	28	0.5	60	Ambient
15E	Hood	35	0.33	3000	Ambient
22E-2	Extruder process	28	0.5	60	Ambient
24E-5	Annealing ovens #01 - #05	36	1.5	2460	500
25E	Electroplating lines	28	0.5	25	Ambient
26E	Electroplating scrubber	29	1.0	1387	Ambient
35E-2	Lacquer tower	28	0.33	62	Ambient
37E	Ringbank ink tower	38	0.33	394	500
38E	Natural gas lacquer oven	55	1.0	600	1300
39E	Oven	35	0.33	20	Unknown
46E-3	Steam generators #01 - #03	22	1.25	1500	500

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on December 27, 1999.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 7).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	19.43
PM-10	18.33
SO_2	39.08
VOC	32.45
CO	22.12
NO_x	39.44

HAP's	Potential To Emit (tons/year)
Xylene	3.30
Toluene	8.35
Methyl Isobutyl Ketone	3.30
Methyl Ethyl Ketone	3.59
Methanol	0.83
Diethanolamine	1.93
Glycol Ether	0.11
Lead & Antimony	0.14
TOTAL	21.55

(a) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Wayne County.

Pollutant	Status
PM-10	attainment
SO_2	maintenance attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Wayne County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	10.82
PM10	9.88
SO_2	39.08
VOC	32.45
CO	22.12
NO_x	39.44
Single HAP	8.35
Total HAPs	21.50

(a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit MSOP-177-11735-00003, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

(a) The two (2) heating boilers, identified as #01 and #02 and the four (4) steam generators, identified as #01 through #04 are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), because they each have a maximum heat input rate of less than 10 MMBtu/hr..

(b) The two (2) 20,000 gallon grade 2 fuel oil storage tanks are subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110c, Subpart Kb) because the tank was constructed after July 23, 1984, and has a storage capacity greater than 40 cubic meters. However, since the tank has a storage capacity greater than 75 cubic meters but less than 151 cubic meters, the tank is subject to only 40 CFR Part 60.116b, paragraphs (a), (b), and (c) which require record keeping.

(c) The one (1) 20,000 gallon propane storage tank, which was constructed in 1975 is not subject to the New Source Performance Standard, 326 IAC 12 (40 CFR 60, Subpart K) because it does not have a storage capacity greater than 40,000 gallons.

(d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Wayne County and the potential to emit any criteria pollutant is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

The two (2) natural gas fired boilers (#01 and #02) using no. 2 fuel oil as backup, each rated at 9.2 MMBtu per hour, respectively, are subject to the particulate matter limitations of 326 IAC 6-2. Pursuant to this rule, the boilers are limited by the following equation from 326 IAC 6-2-4:

$Pt = 1.09/Q^{0.26}$

where: Pt = maximum allowable particulate matter (PM) emitted per MMBtu heat input
Q = total source max. indirect heater input = #01 and #02 = 9.2 + 9.2 = 18.4 MMBtu/hr

$Pt = 1.09/18.4^{0.26} = 0.51$ lbs PM/MMBtu

Therefore, the PM emissions from the two (2) boilers are limited to 0.51 lbs PM/MMBtu

Compliance calculation:
(0.15 tons PM/yr) * (hr/18.4 MMBtu) * (yr/8,760 hrs) * (2,000 lbs/ton) = 1.86E-3 lbs PM/MMBtu

Actual lbs PM/MMBtu (1.86E-3) is less than allowable lbs PM/MMBtu (0.51), therefore the boilers will comply with the requirements of 326 IAC 6-4.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the wire processing operation shall be limited by the following:

(a) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the two (2) electroplating lines shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(0.02335)^{0.67} = 0.33$ lbs PM/hour

Based on the above equation, particulate matter emissions from the two (2) electroplating lines shall be limited to 0.33 pounds per hour.

Compliance calculation:
(3.25 tons PM/yr) * (yr/8,760 hrs) * (2,000 lbs/ton) = 0.74 lbs PM/hr

The two (2) electroplating lines will comply with the requirements of 326 IAC 6-3-2 by using a wet scrubber. See Appendix A, page 7 for detailed emission calculations.

(b) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the copper wire drawing machine shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(3.67)^{0.67} = 9.80$ lbs PM/hour

Based on the above equation, particulate matter emissions from the copper wire drawing machine shall be limited to 0.33 pounds per hour.

Compliance calculation:
(0.04 tons PM/yr) * (yr/8,760 hrs) * (2,000 lbs/ton) = 9.13E-3 lbs PM/hr

Actual lbs PM/hr (9.13E-3) is less than the allowable lbs PM/hr (9.80), therefore the copper wire drawing machine will comply with the requirements of 326 IAC 6-3-2.

(c) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the one (1) fiberglass braider shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(6.65E\text{-}3)^{0.67} = 0.14$ lbs PM/hour

Based on the above equation, particulate matter emissions from the one (1) fiberglass braider shall be limited to 0.14 pounds per hour.

Compliance calculation:
(2.93 tons PM/yr) * (yr/8,760 hrs) * (2,000 lbs/ton) = 0.67 lbs PM/hr

The one (1) fiberglass braider will comply with the requirements of 326 IAC 6-3-2 by using dust collector #06. See Appendix A, page 7 for detailed emission calculations.

(d) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the PVC pelletizer process shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(3.17)^{0.67} = 8.88$ lbs PM/hour

Based on the above equation, particulate matter emissions from the PVC pelletizer shall be limited to 8.88 pounds per hour.

Compliance calculation:
(5.26 tons PM/yr) * (yr/8,760 hrs) * (2,000 lbs/ton) = 1.20 lbs PM/hr

Actual lbs PM/hr (1.20) is less than the allowable lbs PM/hr (8.88), therefore the PVC pelletizer will comply with the requirements of 326 IAC 6-3-2.

(e) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the vulcanizer process shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(3.19E\text{-}2)^{0.67} = 0.41$ lbs PM/hour

Based on the above equation, particulate matter emissions from the vulcanizer process shall be limited to 0.41 pounds per hour.

Compliance calculation:
(0.04 tons PM/yr) * (yr/8,760 hrs) * (2,000 lbs/ton) = 9.13E-3 lbs PM/hr

Actual lbs PM/hr (9.13E-3) is less than the allowable lbs PM/hr (0.41), therefore the vulcanizer process will comply with the requirements of 326 IAC 6-3-2.

(f) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the extruder process shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(3.58)^{0.67} = 9.64$ lbs PM/hour

Based on the above equation, particulate matter emissions from the extruder process shall be limited to 9.64 pounds per hour.

Compliance calculation:
(2.19 tons PM/yr) * (yr/8,760 hrs) * (2,000 lbs/ton) = 0.50 lbs PM/hr

Actual lbs PM/hr (0.50) is less than the allowable lbs PM/hr (9.64), therefore the extruder process will comply with the requirements of 326 IAC 6-3-2.

(g) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the PVC Mixer process shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(3.17)^{0.67} = 8.88$ lbs PM/hour

Based on the above equation, particulate matter emissions from the PVC Mixer shall be limited to 8.88 pounds per hour.

Compliance calculation:
(2.19 tons PM/yr) * (yr/8,760 hrs) * (2,000 lbs/ton) = 0.50 lbs PM/hr

Actual lbs PM/hr (0.50) is less than the allowable lbs PM/hr (8.88), therefore the PVC Mixer will comply with the requirements of 326 IAC 6-3-2.

(h) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the PVC Compound loading process shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10*(3.17)^{0.67} = 8.88$ lbs PM/hour

Based on the above equation, particulate matter emissions from the PVC Compound loading process shall be limited to 8.88 pounds per hour.

Compliance calculation:
(0.65 tons PM/yr) * (yr/8,760 hrs) * (2,000 lbs/ton) = 0.15 lbs PM/hr

Actual lbs PM/hr (0.15) is less than the allowable lbs PM/hr (8.88), therefore the PVC Compound loading process will comply with the requirements of 326 IAC 6-3-2.

(i) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the

coating operation shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

326 IAC 8-2-8 (Magnet Wire Coating Operations)

(a) This section establishes the emission limitations for the process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

(b) No owner or operator of a magnet wire coating oven subject to this section may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of 0.20 kilograms per liter of coating (1.7 pounds per gallon) excluding water, delivered to the coating applicator from magnet wire coating operations.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

(a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

(b) See attached calculations for detailed air toxic calculations (Appendix A, pages 6 and 7).

Conclusion

The operation of this electronic wire and cable manufacturing facility shall be subject to the conditions of the attached proposed **Minor Source Operating Permit 177-11735-00003.**

Appendix A: Emission Calculations

Company Name: Belden Electronics Division
Address City IN Zip: 350 NW N Street, Richmond, IN 47374
CP: 177-11735
Plt ID: 177-00003
Reviewer: Nishat Hydari / EVP

Uncontrolled Potential Emissions (tons/year)

	Emissions Generating Activity					
Pollutant	Annealing Ovens	Natural Gas Combustion	Fuel Oil Combustion	Surface Coating	Wire Processing	**TOTAL**
PM	0.02	0.13	2.62	0.11	16.55	19.43
PM10	0.10	0.51	1.39	0.11	16.22	18.33
SO2	0.01	0.04	39.03	0.00	0.00	39.08
NOx	1.31	6.71	31.42	0.00	0.00	39.44
VOC	0.07	0.37	1.01	28.86	2.14	32.45
CO	1.10	5.63	15.39	0.00	0.00	22.12
total HAPs	0.00	0.00	0.00	19.37	2.18	21.55
worst case single HAP	0.00	0.00	0.00	8.35	1.93	8.35

Total emissions based on rated capacity at 8,760 hours/year.

Controlled Potential Emissions (tons/year)

	Emissions Generating Activity					
Pollutant	Annealing Ovens	Natural Gas Combustion	Fuel Oil Combustion	Surface Coating	Wire Processing	**TOTAL**
PM	0.02	0.13	2.62	0.11	7.94	10.82
PM10	0.10	0.51	1.39	0.11	7.77	9.88
SO2	0.01	0.04	39.03	0.00	0.00	39.08
NOx	1.31	6.71	31.42	0.00	0.00	39.44
VOC	0.07	0.37	1.01	28.86	2.14	32.45
CO	1.10	5.63	15.39	0.00	0.00	22.12
total HAPs	0.00	0.00	0.00	19.37	2.13	21.50
worst case single HAP	0.00	0.00	0.00	8.35	1.93	8.35

Total emissions based on rated capacity at 8,760 hours/year, after control.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Belden Electronics Division
Address City IN Zip: 350 NW N Street, Richmond, IN 47374
CP: 177-11735
Plt ID: 177-00003
Reviewer: Nishat Hydari / EVP

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
3.0	26.3

Facilities	**MMBtu/hr**
Annealing Oven (#01)	0.6
Annealing Oven (#02)	0.6
Annealing Oven (#03)	0.6
Annealing Oven (#04)	0.6
Annealing Oven (#05)	0.6
Total	**3.0**

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.02	0.10	0.01	1.31	0.07	1.10

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Belden Electronics Division
Address City IN Zip: 350 NW N Street, Richmond, IN 47374
CP: 177-11735
Plt ID: 177-00003
Reviewer: Nishat Hydari / EVP

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
15.31	134.1

Facilities	**MMBtu/hr**
Steam Generator (#05)	6.7
Lacquer Tower	0.63
Oven (Ringband Oven #01)	1.68
Blower (Kemp Gas Machine)	6.3
Total	**15.31**

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.13	0.51	0.04	6.71	0.37	5.63

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

Appendix A: Potential Emissions Calculations
No. 2 Fuel Oil Combustion Only
MM BTU/HR <100

Company Name: Belden Electronics Division
Address City IN Zip: 350 NW N Street, Richmond, IN 47374
CP: 177-11735
Plt ID: 177-00003
Reviewer: Nishat Hydari / EVP

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	kgals/year	S = Weight % Sulfur
41.84	366.5	2618.0	0.21

Heat Input Capacity includes:

Facilities	**MMBtu/hr**
Heating Boiler (#01)	9.2
Heating Boiler (#02)	9.2
Steam Generator (#01)	5.02
Steam Generator (#02)	5.02
Steam Generator (#03)	6.7
Steam Generator (#04)	6.7
Total	**41.84**

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.35	1.39	0.11	18.33	1.01	15.39

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

	Pollutant				
	PM	SO2	NOx*	VOC	CO
Emission Factor in lb/kgal (No. 2 fuel oil combustion)	2.0	142S	24.00	0.2	5.0
Potential Emissions burning No. 2 fuel oil, tons/yr	2.62	39.03	31.42	0.26	6.54

Methodology:
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors for CO from natural gas combustion: Uncontrolled = 35, Low NOx Burner = 61, Flue gas recirculation = 37
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors for natural gas combustion are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02
Emissions from natural gas combustion (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu
Emission Factors for No. 2 fuel oil combustion are from AP 42, Tables 1.3-2 and 1.3-4 (SCC 1-02-005-01/02/03)
Emissions from No. 2 fuel oil combustion (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Compliance with 326 IAC 7-1.1-2

The following calculations determine the maximum sulfur content of #2 distillate fuel allowed by 326 IAC 7-1-.1-2:

0.5 lb/MMBtu x 136,000 Btu/gal = 68 lb/1000 gal
68 lb/1000 gal/ 142 lb/1000 gal = 0.5 %

Sulfur content must be less than or equal to 0.5 % to comply with 326 IAC 7-1.1-2.
Facility will comply with 326 IAC 7-1.1-2 by using fuel oil with a limited 0.21% sulfur content.

Total Potential Emissions

	PM	PM10	SO2	NOx	VOC	CO
Natural gas combustion emissions	0.35	1.39	0.11	18.33	1.01	15.39
Fuel Oil emissions	2.62		39.03	31.42	0.26	6.54
Total Potential Emissions**	**2.62**	**1.39**	**39.03**	**31.42**	**1.01**	**15.39**

**The total represents the worst case emissions for each pollutant.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Belden Electronics Division
Address City IN Zip: 350 NW N Street, Richmond, IN 47374
CP: 177-11735
Plt ID: 177-00003
Reviewer: Nishat Hydari / EVP

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Lacquer																
T912	7.51	55.00%	0.0%	55.0%	0.0%	23.00%	0.18775	1.000	4.13	4.13	0.78	18.61	3.40	0.00	17.96	100%
T8570	7.51	100.00%	0.0%	100.0%	0.0%	0.00%	0.13182	1.000	7.51	7.51	0.99	23.76	4.34	0.00	ERR	100%
T942	7.67	85.00%	0.0%	85.0%	0.0%	20.00%	0.00261	1.000	6.52	6.52	0.02	0.41	0.07	0.00	32.60	100%
T960	6.76	100.00%	0.0%	100.0%	0.0%	1.00%	0.15533	1.000	6.76	6.76	1.05	25.20	4.60	0.00	676.00	100%
Printing																
T903	9.17	63.00%	0.0%	63.0%	0.0%	20.00%	0.07088	1.000	5.78	5.78	0.41	9.83	1.79	0.00	28.89	100%
T993	9.17	63.00%	0.0%	63.0%	0.0%	20.00%	0.04362	1.000	5.78	5.78	0.25	6.05	1.10	0.00	28.89	100%
T973	6.67	54.00%	0.0%	54.0%	0.0%	0.00%	0.14243	1.000	3.60	3.60	0.51	12.31	2.25	0.00	ERR	100%
T963	6.84	100.00%	0.0%	100.0%	0.0%	0.00%	0.02778	1.000	6.84	6.84	0.19	4.56	0.83	0.00	ERR	100%
T923	6.8	0.00%	0.0%	0.0%	0.0%	3.00%	0.00074	1.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
T946	7.92	100.00%	0.0%	100.0%	0.0%	0.00%	0.03283	1.000	7.92	7.92	0.26	6.24	1.14	0.00	ERR	100%
T7330	9.17	80.00%	0.0%	80.0%	0.0%	20.00%	0.00545	1.000	7.34	7.34	0.04	0.96	0.18	0.00	36.68	100%
Ringband																
T935	7.92	40.00%	0.0%	40.0%	0.0%	20.00%	0.09722	1.000	3.17	3.17	0.31	7.39	1.35	0.10	15.84	95%
T919	7.84	80.00%	0.0%	80.0%	0.0%	20.00%	0.00128	1.000	6.27	6.27	0.01	0.19	0.04	0.00	31.36	95%
T918	7.51	78.00%	0.0%	78.0%	0.0%	17.00%	0.03595	1.000	5.86	5.86	0.21	5.05	0.92	0.01	34.46	95%
Inkjet																
T947	6.9	99.00%	0.0%	99.0%	0.0%	0.00%	0.07101	1.000	6.83	6.83	0.49	11.64	2.12	0.00	ERR	100%
T991	7.92	74.00%	0.0%	74.0%	0.0%	20.00%	0.11111	1.000	5.86	5.86	0.65	15.63	2.85	0.00	29.30	100%
T995	7.51	74.00%	0.0%	74.0%	0.0%	20.00%	0.01731	1.000	5.56	5.56	0.10	2.31	0.42	0.00	27.79	100%
T996	6.67	70.00%	0.0%	70.0%	0.0%	20.00%	0.03298	1.000	4.67	4.67	0.15	3.70	0.67	0.00	23.35	100%
T997	6.72	100.00%	0.0%	100.0%	0.0%	0.00%	0.02679	1.000	6.72	6.72	0.18	4.32	0.79	0.00	ERR	100%
State Potential Emissions		**Add worst case coating to all solvents**									**6.59**	**158.16**	**28.86**	**0.11**		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: Belden Electronics Division
Address City IN Zip: 350 NW N Street, Richmond, IN 47374
CP#: 177-11735
Plt ID: 177-00003
Permit Reviewer: Nishat Hydari / EVP

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methyl Isobutyl Ketone	Weight % Methyl Ethyl Ketone	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methyl Isobutyl Ketone Emissions (ton/yr)	Methyl Ethyl Ketone Emissions (ton/yr)	Methanol Emissions (ton/yr)
Lacquer													
T912	7.51	0.18775	1.000	0.00%	30.00%	0.00%	10.00%	0.00%	0.00	1.85	0.00	0.62	0.00
T8570	7.51	0.13182	1.000	5.10%	66.80%	9.50%	5.70%	0.00%	0.22	2.90	0.41	0.25	0.00
T960	6.76	0.15533	1.000	67.00%	0.00%	0.00%	0.00%	18.00%	3.08	0.00	0.00	0.00	0.83
Printing													
T973	6.67	0.14243	1.000	0.00%	47.00%	0.00%	0.00%	0.00%	0.00	1.96	0.00	0.00	0.00
T963	6.84	0.02778	1.000	0.00%	17.00%	40.00%	40.00%	0.00%	0.00	0.14	0.33	0.33	0.00
T7330	9.17	0.00545	1.000	0.00%	15.00%	30.00%	30.00%	0.00%	0.00	0.03	0.07	0.07	0.00
Ringband													
T935	7.92	0.09722	1.000	0.00%	0.00%	15.00%	15.00%	0.00%	0.00	0.00	0.51	0.51	0.00
T919	7.84	0.00128	1.000	0.00%	10.00%	25.00%	30.00%	0.00%	0.00	0.00	0.01	0.01	0.00
T918	7.51	0.03595	1.000	0.00%	0.00%	5.50%	0.00%	0.00%	0.00	0.00	0.07	0.00	0.00
Inkjet													
T947	6.9	0.07101	1.000	0.00%	0.00%	89.10%	0.00%	0.00%	0.00	0.00	1.91	0.00	0.00
T991	7.92	0.11111	1.000	0.00%	38.00%	0.00%	0.00%	0.00%	0.00	1.46	0.00	0.00	0.00
T995	7.51	0.01731	1.000	0.00%	0.00%	0.00%	75.00%	0.00%	0.00	0.00	0.00	0.43	0.00
T996	6.67	0.03298	1.000	0.00%	0.00%	0.00%	70.00%	0.00%	0.00	0.00	0.00	0.67	0.00
T997	6.72	0.02679	1.000	0.00%	0.00%	0.00%	90.00%	0.00%	0.00	0.00	0.00	0.71	0.00
Total State Potential Emissions									**3.30**	**8.35**	**3.30**	**3.59**	**0.83**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Potential Emissions Calculations
Wire Processing

Company Name: Belden Electronics Division
Address City IN Zip: 350 NW N Street, Richmond, IN 47374
CP: 177-11735
Plt ID: 177-00003
Reviewer: Nishat Hydari / EVP

Tin Electroplating

Quantity of PM/PM10 emitted = (Maximum Process Throughput-Maximum Process Output-Amount Wasted)

PM/PM10	46.7	lbs/hr -	44.36	lbs/hr x	8760	hrs/yr /	2000	lbs/ton -	7	tons/yr =	**3.25 tons/yr**	**uncontrolled**
		where the wet scrubber efficiency is			99.00%						**0.03 tons/yr**	**controlled**

Copper Wire Drawing

Quantity of PM/PM10 emitted = (Maximum Process Throughput - Maximum Process Output)

PM/PM10	7340.71	lbs/hr -	7340.7	lbs/hr x	8760	hrs/yr /	2000	lbs/ton =	**0.04 tons/yr**	**uncontrolled**

Quantity of VOC emitted = (Maximum Drawing Solution Usage x Percent Volatile)

VOC	8.79	lbs/hr x	0.05	wt % x	8760	hrs/yr /	2000	lbs/ton =	**1.93 tons/yr**	**uncontrolled**

Quantity of HAP emitted = (Maximum Drawing Solution Usage x Percent HAP)

HAP*	8.79	lbs/hr x	0.05	wt % x	8760	hrs/yr /	2000	lbs/ton =	**1.93 tons/yr**	**uncontrolled**

*diethanolamine

Copper Wire Braiding

Quantity of VOC emitted = (Maximum Oil Application x Percent Volatile)

VOC	0.97	lbs/hr x	0.05	wt % x	8760	hrs/yr /	2000	lbs/ton =	**0.21 tons/yr**	**uncontrolled**

Quantity of HAP emitted = (Maximum Oil Application x Percent HAP)

HAP*	0.97	lbs/hr x	0.025	wt % x	8760	lbs/hr /	2000	lbs/ton =	**0.11 tons/yr**	**uncontrolled**

*glycol ether

Fiberglass Braided Copper Wire

Quantity of PM/PM10 emitted = (Maximum Fiberglass Throughput - Maximum Fiberglass Output)

PM/PM10	13.31	lbs/hr -	12.64	lbs/hr x	8760	hrs/yr /	2000	lbs/ton =	**2.93 tons/yr**	**uncontrolled**
		where the dust collector efficiency is			99.00%				**0.03 tons/yr**	**controlled**

PVC Pellets

Quantity of PM/PM10 emitted = (Maximum Process Throughput - Maximum Process Output)

PM/PM10	6351.92	lbs/hr -	6350.72	lbs/hr x	8760	hrs/yr /	2000	lbs/ton =	**5.26 tons/yr**	**uncontrolled**

Quantity of HAPs emitted = (Maximum Process Throughput - Maximum Process Output) x Percent HAP

HAPs*	6351.92	lbs/hr -	6350.72	lbs/hr x	0.018	wt % x	8760	hrs/yr /	2000 lbs/ton =	**0.09 tons/yr**	**uncontrolled**

*Lead and Antimony

Rubber Coated Copper Wire

Quantity of PM/PM10 emitted = (Maximum Process Throughput - Maximum Process Output)

PM/PM10	63.87	lbs/hr -	63.86	lbs/hr x	8760	hrs/yr /	2000	lbs/ton =	**0.04 tons/yr**	**uncontrolled**

Extruders

Quantity of PM/PM10 emitted = (Maximum Process Throughput - Maximum Process Output)

PM/PM10	7166.11	lbs/hr -	7165.61	lbs/hr x	8760	hrs/yr /	2000	lbs/ton =	**2.19 tons/yr**	**uncontrolled**

PVC Mixer

Quantity of PM/PM emitted = (Maximum Process Throughput - Maximum Process Output)

PM/PM10	6351.92	lbs/hr -	6351.42	lbs/hr x	8760	hrs/yr /	2000	lbs/ton =	**2.19 tons/yr**	**uncontrolled**
		where the dust collector efficiency is			99.00%				**0.02 tons/yr**	**controlled**

Quantity of HAPs emitted = (Maximum Process Throughput - Maximum Process Output) x Percent HAP

HAPs*	6351.92	lbs/hr -	6351.42	lbs/hr x	0.018	wt % x	8760	hrs/yr /	2000 lbs/ton =	**0.04 tons/yr**	**uncontrolled**
		where the dust collector efficiency is			99.00%					**0.00 tons/yr**	**controlled**

*Lead and Antimony

PVC Compound Loading

Quantity of PM/PM10 emitted = Maximum Process Throughput x Emission Factor x 16 Systems

PM	6351.92	lbs/hr x	0.0029	lbs/ton x	8760	hrs/yr /	2000	lbs/ton /	2000	lbs/ton x	16 =	**0.65 tons/yr**	**uncontrolled**
		where the dust collector efficiency is			99.00%							**0.33 tons/yr**	**controlled**
PM10	6351.92	lbs/hr x	0.0014	lbs/ton x	8760	hrs/yr /	2000	lbs/ton /	2000	lbs/ton x	16 =	**0.31 tons/yr**	**uncontrolled**
		where the dust collector efficiency is			99.00%							**0.16 tons/yr**	**controlled**

Quantity of HAP emitted = Maximum HAP Throughput x Emission Factor

HAP*	113.81	lbs/hr x	0.0029	lbs/ton x	8760	hrs/yr /	2000	lbs/ton /	2000	lbs/ton x	13 =	**0.01 tons/yr**	**uncontrolled**
		where the dust collector efficiency is			99.00%							**0.00 tons/yr**	**controlled**

*Lead and Antimony

Total Potential Emissions

	PM	PM10	VOC	HAPs
Uncontrolled (tons/yr)	**16.55**	**16.22**	**2.14**	**2.17**
Controlled (tons/yr)	**7.94**	**7.77**	**2.14**	**2.13**