Pre-Assessment Form

IUPUI

Industrial Assessment Center

INDIANA UNIVERSITY-PURDUE UNIVERSITY
INDIANAPOLIS

Please complete this survey as best as possible and return/email it to the address below.

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Contact Information

Company Name: ______________________________

Mailing Address: ______________________________

____

Street Address: ______________________________

____

Contact Person: ______________________________

Title/Position: ______________________________

Phone: ______________________________

Email: ______________________________

General Information

Principal products: ______________________________

SIC code: ______________ NAICS code: ______________

Annual Sales: $______________million

Number of Employees: ______________ Total Plant Area (ft^2): ______________

Number of buildings: ______________

Area	Size (ft^2)	Age	Use

Gross Annual Production: ________________________ e.g. pieces, parts, pounds, tons, gallons
(Please include monthly production data for the same twelve months as the attached utility bills.)

Shift Structure:

Shift	Shift start - Shift end	Days/Week	Weeks/Year	Number of Employees
1st				
2nd				
3rd				
Office				

Please note any special shutdowns, overtimes, different operating hours in different areas of the plant. This information will affect the operating cost calculation:

____

____

Are your employees unionized? Y / N

Do you have a formal startup procedure for the plant? Y / N

Labor plus overhead rate for production personnel: _________________________________

Labor plus overhead rate for maintenance personnel: ________________________________

Contracted maintenance? (e.g. boilers, compressors): Y /N

If yes, please note contractor company and how often: _______________________________

____

May we take photographs in your plant? Yes No Some Areas

Utility Information

- *Electricity*
  - Number of meters:____
  - Do you correct for power factor? Y / N
  - Delivery Company: ______________________________________
  - Supplier: ______________________________________
  - Approximate Annual Cost: __________________________(Optional)
- *Natural Gas*
  - Delivery Company: ______________________________________
  - Supplier: ______________________________________
  - Approximate Annual Cost: __________________________(Optional)
- *Fuel Oil*
  - Type of oil: ______________________________________
  - Size of tank: ______________________________________
  - Delivery Schedule: ______________________________________
  - Supplier: ______________________________________
  - Approximate Annual Cost: __________________________(Optional)

(Please list any other fuels or specialty gases; e.g. coal, propane, CO_2, Nitrogen, etc.)

- *Water*
  - Cost per year: ______________________________________
  - Gallons used per year: ______________________________________
  - Are you treating water? ______________________________________
- *Sewer*
  - Cost per year: ______________________________________
- *Trash*
  - Cost per year: ______________________________________
  - Hazardous waste: ______________________________________

- Recyclables: ____

Do you generate your own power? Y/ N

Plant Information

Please list any process that requires heating (other than space heat):

Please list any processes that require refrigeration:

Do you have a plant layout or floor plan? Y / N

If yes, please attach a copy to this form.

Are employees and management satisfied with existing lighting levels? Y / N

Are there any lighting concerns? Y / N

Has the facility had a lighting retrofit installed in the past? Y / N

If yes, when and what was installed? ____

____

HVAC Systems

- *Central Heating*
    - Steam/hot water or forced air:____
    - Is there a boiler? Y / N
        - Boiler pressure: ____
        - Boiler Capacity: ____
        - Annual steam usage: ____
        - Annual steam cost: ____

Production Equipment

Compressors

Type	Horsepower	Annual Hours of Operation

Do you have any motors greater than 50 HP? Y / N

Do you have any cooling towers? Y / N

Do you have any chillers? Y / N

Do you use any ovens? Y / N

Are VFDs installed on the compressors? Y / N

Improvement Areas

Below, please list those areas that you consider the best opportunities for saving, improvement, or problematic. Describe any future energy reduction projects to help us best focus our efforts and measurement; consider energy usage, manufacturing productivity, and waste reduction. Feel free to attach any additional sheets as necessary.

Cybersecurity

Are You Interested in a Cybersecurity Audit? Yes / No

Cybersecurity attacks against industrial control systems increased 110% in 2016, with the US being one of the largest targets. The goal of the Department of Energy (DOE), Office of Electricity Delivery and Energy Reliability (OE) is to protect the power grid, oil, and gas infrastructure from cyber threats. By the year 2020, OE will survive cyber incidents by:

- Strengthening energy sector cybersecurity preparedness.
- Coordinating cyber incident response and recovery.
- Accelerating research, development, and demonstration (RD&D) of game-changing and resilient energy delivery systems.

Industrial systems are increasingly internet-facing, which creates increased exposure to cybersecurity threats. Cybersecurity threats are attempts at unauthorized access to networked IT systems and control systems. The internet is the usual path of access to these networked systems, via malware and social engineering. Social engineering is the human process of influencing an employee to carry out an act for a hacker, such as sharing a password over the phone.

Targets
People, network infrastructure, meters, thermostats, payment methods, and anything networked, which describes the Internet of Things.

What can you do?

- Segment the ICS (Internet Connection Sharing) network from the traditional network.
- Restrict logical and physical access to the ICS network.
- Encrypt data in transit and at rest (data integrity).
- Put incident, recovery, and business continuity plans in place.
- Implement access control measures.
- Ensure only authorized users have access to your systems.
- Monitor the network for cybersecurity threats.
- Put policies and procedures in place that pertain to cybersecurity threats in the ICS.
- Ensure training and education takes place specific to cybersecurity threats in ICS.
- Use multifactor authentication.

References

Cybersecurity for Critical Energy Infrastructure. (2017). Retrieved from https://energy.gov/oe/cybersecurity-critical-energy-infrastructure

Energy Department Announces Up to $15 Million to Help Improve the Security and Resilience of the Nation’s Power Grid. (2017). Retrieved from https://energy.gov/articles/energy-department-announces-15-million-help-improve-security-and-resilience-nation-s-power

McMillen, D. (2016). Attacks targeting industrial control systems (ICS) up 110 percent. *Security Intelligence: Analysis and Insight for Information Security Professionals.* Retrieved from https://securityintelligence.com/attacks-targeting-industrial-control-systems-ics-up-110-percent/

McMillen, D. (Producer). (2016). Security attacks on industrial control systems: How technology advances create risks for industrial organizations. *IBM Managed Security Services Research Report*. Retrieved from http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?subtype=WH&infotype=SA&htmlfid=SEL03046USEN&attachment=SEL03046USEN.PDF