



# Baker Engineering and Risk Consultants, Inc.









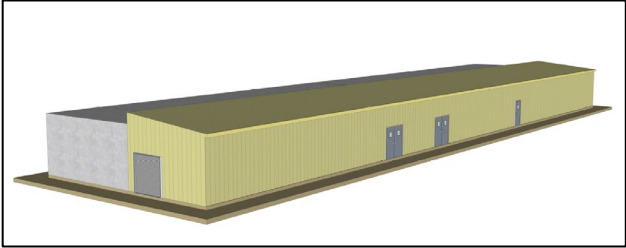
April 23, 2020

**Re: BakerRisk Experience Designing Blast Pre-Engineered Metal Buildings**

Baker Engineering and Risk Consultants, Inc. (BakerRisk®) has extensive experience in the design of buildings for blast resistance, this includes the design of retrofits for existing pre-engineered metal buildings and the design of new building structures. In 2015 BakerRisk formed a teaming agreement with a pre-engineered metal building fabricator, Rigid Global Buildings, in order to provide our clients with a single source for the design and fabrication of blast resistant buildings. The following provides a brief overview of our recent experience designing blast resistant pre-engineered metal buildings.

| Year | Project Name          | Location       | Peak Blast Pressure | Description   |
|------|-----------------------|----------------|---------------------|---|
| 2015 | Packaging Building    | Louisiana, USA | 3.5 psi             | Multi-section building. The pre-engineered metal building is 280 feet by 240 feet in planned dimensions.                                      |
| 2016 | Fire Water Pump House | Louisiana, USA | 1.8 psi             |   |
|      | Warehouse and Office  | Texas, USA     | 1.2 psi             |   |
| 2017 | Central Store House   | Texas, USA     | 4.0 psi             | Multi-section building. The pre-engineered metal building is 145 feet by 150 feet in planned dimensions. The building eave height is 30 feet. |

|      |                           |                |                                    |   |
|------|---------------------------|----------------|------------------------------------|---|
|      | Maintenance Building      | Texas, USA     | 4.0 psi                            | Multi-section building. The pre-engineered metal building is 282 feet by 120 feet in planned dimensions. The building eave height is 33 feet.                   |
|      | Control Room / Laboratory | Texas, USA     | 2.0 psi                            |   |
|      | Control Room              | Indiana, USA   | 2.0 psi                            |   |
| 2018 | Welding Office            | Oklahoma, USA  | 1.0 psi                            | The Welding Office is an 80 feet by 30 feet addition to an existing building.   |
| 2019 | Health and Safety         | Trinidad       | 2.4 psi                            |   |
|      | Control Room Office       | Louisiana, USA | 0.6 psi                            | Control Building at a chemical facility. The building has planned dimensions of 133 feet by 64 feet in planned dimensions. The building eave height is 20 feet. |
|      | Shop Building             | Texas, USA     | Charge Weight I / Charge Weight II | Shop Building located at Fort Hood, Texas. The structural framing around window openings designed to resist ATPF specified blast loads.                         |
|      | Warehouse                 | Texas, USA     | 0.7 psi                            | The Warehouse is located in at an oil refinery. The building has plan dimensions of 280 feet by 210 feet. The building has an eave height of 18 feet.           |

|                              |                  |                   |   |
|------------------------------|------------------|-------------------|---|
| Security Building            | Texas, USA       | 1.4 psi           | The Security Building is located at a gas plant in Texas. The building has plan dimensions of 70 feet by 36 feet.   |
| Operators Building           | Washington, USA  | 4.1 psi           |   |
| Control Room Upgrade         | Mississippi, USA | Risk-based design |    |
| Warehouse & Laboratory       | Texas, USA       | 0.6 psi           | Multi-section building, the pre-engineered metal building section that houses the Warehouse function has an eave height of 29 feet and the pre-engineered building section that houses the Laboratory function has an eave height of 14 feet. |
| Administration Building      | Mississippi, USA | Risk-based design |   |
| Manufacturing Support Office | Texas, USA       | 5 psi             |   |

|      |                            |                   |                   |   |
|------|----------------------------|-------------------|-------------------|---|
| 2020 | Administration Building    | North Dakota, USA | Risk-based design | The Administration Building replaces an existing building that need meet the facility risk criteria. The new building has plan dimensions of 125 feet by 66 feet.   |
|      | Quality Control Laboratory | Texas, USA        | 1.4 psi           | The Quality Control Laboratory has plan dimensions of 125 feet by 66 feet. The building has an eave height of 16 feet.  |
|      | Maintenance Shop           | Louisiana, USA    | 4.8 psi           | The Maintenance Shop is located in an oil refinery. The building is a multi-section building. Section A has plan dimensions 166 feet by 40 feet and Section B has plan dimensions of 47 feet by 30 feet.            |
|      | Control Room               | Texas, USA        | 4.0 psi           | The Control Room Building is located a terminal station in Texas. The building has plan dimensions of 85 feet by 60 feet. The building frame is designed to support the multiple blast resistant windows and doors. |

# Providing Solutions to Manage Hazards and Risks

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