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## **THE CUBICAL**

### **Welcome to The Cubical!**



Hello, and welcome to the inaugural edition of The Cubical! The Cubical is an e-mail newsletter on topics of general interest in the environmental, health & safety (EHS) arena from the law practice of Daniel J. Brown, L.L.C. For now, each new edition of The Cubical will be issued on a monthly basis. Editions will typically contain a few short articles as well as an introduction and link to a recent in-depth article from my website.

The main theme for today's edition is climate change and sustainability. The in-depth article highlighted in this edition goes into more detail about how senior executives and managers can apply a few basic scientific principles to think about these issues on a broad scale. As chemical engineering students and graduates know, a course on mass and energy balances is one of the first courses in their designated major. However, one need not have a technical background to apply some of the principles covered in this course in order to better understand the environmental impacts of a business's operations. Armed with an understanding of these impacts, one can provide more meaningful input on the climate change and sustainability issues faced by their respective organizations. To find out more, read "New Administration Readiness Check-up: Finding Balance" below and then click the link to the full article on the webpage of Daniel J. Brown, L.L.C.

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**President Biden Issues *Executive Order on Tackling Climate Crisis at Home and Abroad***

On January 27th, President Biden took another step towards fulfilling his promise to reverse the previous administration's climate policies by issuing the *Executive Order on Tackling the Climate Crisis at Home and Abroad*. A copy of the Executive Order can be found [here](#). In addition, a fact sheet describing this Order and several other related actions taken on the same day can be found [here](#).

To borrow from its title, the Executive Order "tackles" quite a lot. It initiates a wide variety of actions, from commencing a process for the United States to develop its "nationally determined contribution" under The Paris Agreement to ensuring that federal agencies consider the effects of greenhouse gas (GHG) emissions and climate change in their permitting decisions.

Perhaps most importantly, the Executive Order states that "Responding to the climate crisis will require both significant short-term global reductions in [GHGs] and net-zero global emissions by mid-century or before." While utilities and manufacturing industries have been grappling with the issue of climate change for a while now, a statement of such ambitious goals by the new administration will intensify the pressure on businesses in these industries to scrutinize their climate-related goals even more closely and consider what they might do to achieve them.

In the article immediately below, I talk about how senior executives and managers can get a handle on these challenges by considering the mass and energy balances on the systems that are related to their business's operations. Considering these balances offers a way for technical and non-technical personnel alike to conceptualize these daunting challenges in easier and more understandable terms.

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## New Administration Readiness Check-up: Finding Balance

Among the many changes expected to come from the Biden Administration are significant changes in climate change and sustainability policy. Manufacturers will likely experience the effects of such changes in the form of legislative or regulatory initiatives that restrict operations or that require disclosure of a business's environmental impacts. Indirect effects are also likely to come in the form of demands by shareholders, lenders, and other stakeholders for transparency regarding a business's impact on the environment, commitments to reduce such impacts, and accountability for meeting such commitments.

To respond to these increasing demands, senior executive leaders and managers need a solid understanding of the environmental impacts of their respective businesses. A business's operations and supply chain can be quite complex, so this can be a daunting task. However, one can get a handle on such impacts by developing an understanding of the mass and energy balances of the systems related to the business's operations. To do so, it helps to begin by asking the following questions:

- 1.) What is the "system" being analyzed?
- 2.) Is the system "steady state" (parameters remain constant over time) - or transient (parameters change over time)?
- 3.) Using the general balance equations for mass and energy, how much mass or energy is entering, exiting, or accumulating within the system?

## **Nitrogen Release Puts Employer's "General Duty" to Maintain Safe Workplace Into Focus...**

On January 28th, a catastrophic release of liquid nitrogen from a ruptured pipe at the Foundation Foods Group poultry plant in Northeast Georgia resulted in the tragic deaths of six workers. According to the Atlanta Journal-Constitution, the incident is under investigation by the Hall County Sheriff's Office, the state Fire Marshal's Office, and the federal Occupational Safety and Health Administration (OSHA).

With respect to the OSHA investigation, little is known about the origin and cause of the incident to date, so it is difficult to ascertain which OSHA standards may come into play. However, OSHA investigators will probably take a close look at whether the plant violated the Occupational Safety and Health Act's General Duty Clause. Under the General Duty Clause, an employer has a duty to furnish a place of employment free from recognized hazards that are causing or are likely to cause death or serious physical harm. According to OSHA guidance, the following elements are necessary to prove a violation of the General Duty Clause:

- 1.) The employer has failed to keep the workplace free of a hazard to which employees were exposed;
- 2.) The hazard was recognized;
- 3.) The hazard was causing or was likely to cause death or serious physical harm;
- 4.) There was a feasible and useful method to correct the hazard.

OSHA will likely take a close look at whether Foundation Foods Group recognized the hazard posed by the ruptured nitrogen line and whether there were steps that could have been taken to prevent the line from rupturing in the first place. If OSHA determines that the hazard was recognized and that feasible methods were available to prevent the incident from having occurred, the plant may face significant penalties and fines for failure to comply with the General Duty Clause.

It is important for employers to remember that when striving to maintain a safe workplace, compliance with OSHA's specific standards is not sufficient. Employers have a general duty to maintain a safe workplace that goes above and beyond the specific workplace safety and health standards that apply to them.

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## **... And Don't Forget EPA's General Duty Clause**

Facility operators should remember that EPA also possesses the statutory authority to enforce its own General Duty Clause. And in fact, EPA's General Duty Clause borrows directly from OSHA's version. Under Section 112(r) of the Clean Air Act -- which establishes requirements for the prevention of accidental releases -- owners and operators of stationary sources producing, processing, handling or storing extremely hazardous substances (EHSs) have essentially the same general duty as that established by OSHA's General Duty Clause. Namely, they have a duty to identify hazards which may result from releases of EHSs and to take appropriate steps to either prevent such releases or at least mitigate their consequences.

Similar to OSHA's General Duty Clause, EPA's version requires regulated entities to go above and beyond the specific provisions of EPA's Risk Management Plan (RMP) Rule -- the regulatory regime that implements Section 112(r) of the Clean Air Act. In addition, EPA's General Duty Clause applies to a larger universe of EHSs than the RMP Rule. The RMP Rule only applies to certain *listed* EHSs, whereas EPA's General Duty Clause can apply with respect to *any* substance that may be considered as extremely hazardous.

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