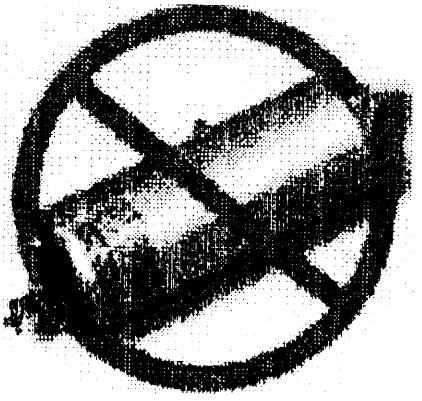
PROPOSAL TO BAN

AIR TRANSPORTATION OF

CHEMICAL OXYGEN GENERATORS

Docket Number 29318 in the Federal Register



OUR POSITION

This letter is being submitted in support of the current proposal by the Federal Aviation Administration to prohibit the transportation of any device engineered to chemically generate oxygen in certain domestic Right operations (Docket Number 29318). We have conducted extensive research on the potential dangers of the transportation of these devices, and we feel that not only is this proposal necessary to ensure safer skies, it should be implemented as soon as possible to prevent further life-threatening incidents.

BACKGROUND SUPPORT

The most infamous accident involving chemical oxygen generators is without a doubt the May 1996 crash of ValuJet flight 592 into the Florida Everglades. Only six minutes after take-off from Miami International Airport, the pilots of the DC-9 lost flight control and suffered electrical system failures. Despite a desperate attempt to return to Miami to land the plane, within three minutes' time, the two pilots, three flight attendants, and 105 passengers had perished.

The sequence of events leading up to the crash of flight 592 began when ValuJet purchased three MD-80s and hired an outside company, SabreTech, to refurbish the planes in a hanger across from the airport in Miami. SabreTech, in turn, hired contract

both passenger and cargo airline flights. We feel it is an unnecessary risk to transport these canisters as cargo aboard planes, because a generator can provide a dangerous secondary source of oxygen to an already-burning tire, and if mishandled, can ignite and spark a fire on its own. In any means of transportation, this would be extremely dangerous, but in air travel, there is little opportunity for rescue and no room for human error. Emergency landings, although feasible, are often too difficult a maneuver when a plane, sometimes carrying large numbers of passengers, is engulfed in f-lames Fortunently, there have been only a handful of incidents wherein chemical oxygen generators have claimed human lives, but we don't feel that any reasoning justifies postponing a ban of the airline transportation of chemical oxygen generators. We shouldn't have to wait for another ValuJet flight 592 before taking action on this issue.

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laborers as mechanics on the project. These workers, pressured by deadlines and instability in the workplace, rushed the job, sometimes working around the clock to complete the order. ValuJet had given SabreTech employees directions to replace the chemical oxygen generators in the planes' seatbacks, and had supplied them with specific procedures and warnings as to the danger involved with the canisters.

The workers, despite being specifically instructed by ValuJet's guidelines, removed the canisters and either taped or cut off the lanyards of the generators. They proceeded to pack them in boxes, disregarding the plastic safety caps that should have covered the firing pins. On paperwork, mechanics, again hurried by deadlines, simply checked-off all lines, certifying that the work had been done. Inspectors and supervisors never bothered to double-check their subordinates' work, and the canisters were quickly forgotten.

The boxes of generators sat on a parts rack beside airplanes for weeks. SabreTech mechanics eventually lugged them to the Shipping & Receiving Department, where they remained, sitting on the floor in an area designated for ValuJet property. Only days prior to the crash of flight 592, a manager, anticipating an inspection by a potential client, instructed a shipping clerk to clean up the area and get all the boxes off the floor. The clerk did as instructed, and lined up the oxygen generators to be sent to Atlanta, ValuJet headquarters.

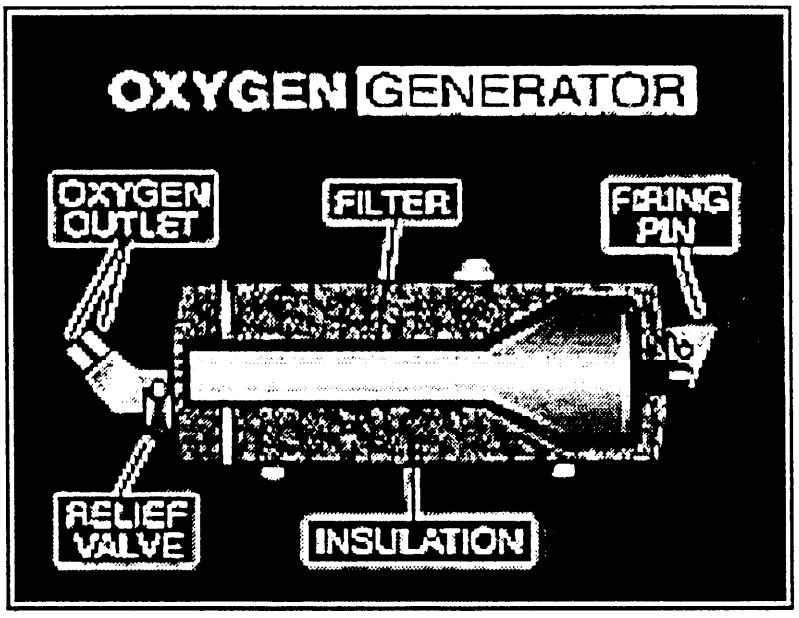
After distributing the canisters equally into five boxes, the clerk packaged the generators in bubble wrap and sealed the boxes. Address labels and ValuJet Company

Material stickers were applied, and the boxes were labeled "Aircraft Parts " Three airplane tires were included in the shipment. The shipping clerk then instructed the receiving clerk to write "oxygen canisters---empty" on the shipping ticket. however the receiving clerk decided to shorten it to "Oxy Canisters." He added the word "empty" in quotation marks, as if he wanted to show he was relying on someone else' determination, and he was just taking their word for it.

The ValuJet ramp agent accepted this cargo, despite it being in direct conflict with federal regulations. He and the co-pilot, Richard Hazen, loaded the cargo in the forward hold, located behind and beneath the cockpit. This was an area unequipped with a fire detection or extinguishing system. The boxes of generators were stacked on top of one of the tires, with the other tires leaning up against them. No one can be sure of exactly what happened next, but it has been speculated that the load may have shifted during loading or takeoff, igniting the first generator and dooming flight 592.

With all these facts that lead up to the ValuJet disaster, perhaps the biggest issue here is not the mere transportation of the generators, but the mislabeling and subsequent mishandling of them on board the DC-9. The generators themselves are small,. steel canisters of various chemicals that create oxygen when ignited. This can produce temperatures of up to 500 degrees on the surface of the canister. In the airline industry, these generators are sometimes used to provide oxygen for the overhead oxygen masks, which should fall in front of a passenger if the plane rapidly loses air pressure The

Diagram of a Chemcial Oxygen Generator



passenger is able to activate the oxygen by pulling the lanyard, causing a retaining pin to slide from a spring-loaded hammer. If properly installed, they should be well-insulated in either seatbacks or the ceilings of the aircraft themselves, posing little danger to passengers and crew. If the canisters are not properly packaged and are nearby anything else flammable, temperatures can surpass 500 degrees Fahrenheit, causing the generators to ignite. If the canisters are to be carried separately as cargo, they are classified as hazardous material, meaning ValuJet would not, by law, be allowed to carry them. In order to empty the canisters, manufacturers say the chemicals inside must be ignited, which leaves a residue of barium salt, another hazardous material ValuJet is not allowed to

transport Regardless of the status of the generators, they should never have been loaded on board the cargo compartments of flight 592

But the underlying issue is the labeling of the canisters. SabreTech, the company for which ValuJet was transporting the generators, failed to properly prepare, package and identify the charged canisters when presenting them to ValuJet, leaving their cargo handlers to trust the labels designating them as empty. This represents an incredibly dangerous situation: even on planes allowed to transport hazardous materials like those found in chemical oxygen generators, the status of the canister (either charged or discharged) dictates how they are handled and stored. Incorrect or insufficient labeling could (and has, in the past) lead to similar incidents of igniting a fire on board an aircraft or providing a secondary source of oxygen to help fuel an already-burning fire.

This last notion is what has lead the Federal Aviation Administration to suggest this proposal. In passenger-carrying operations, it is necessary to prohibit the transportation of any and all chemical oxygen generators, with the only excepting being those generators used in the operation of passenger oxygen masks. In many cases, even after being discharged, some chemical residue often remains inside the canister. These remains can still, under certain circumstances, ignite or help fuel a fire. Since a newly manufactured, uncharged canister would pose no threat to a airline flight, it is understandable that many people, especially those with an economic interest in the transportation of oxygen generators, would believe that the Federal Aviation

Administration is being quite extreme But we feel the proposed ban is necessary, and the FAA is taking their regulations one step further in an bold and respectable attempt to prevent any possibility of a case of "mistaken identity" in the identification of' the generators It is actions like these which are needed in an instance when the consequences of an accidental discharge could be so devastatingly severe, as witnessed in the ValuJet crash of two years ago.

We also feel that it is very important for the ban to apply to those individuals who offer up chemical oxygen generators for air transportation. If the suppliers and manufacturers themselves do not have enough motivation for discontinuing air transportation of these canisters, they might still attempt to hire some airlines for cargo use, believing they will suffer no repercussions if an incident occurs. By making the manufactures and other individuals who wish to transport oxygen generators via airlines responsible for their actions, the Federal Aviation Administration is attempting to avoid any situation wherein a possibility exists for the solicitation of cargo transportation.

Along with the ban imposed by the Federal Aviation Administration on the transportation of chemical oxygen generators in passenger flights, we also support an elimination of such transportation in ah-cargo operations. We believe the possibility for human error in the identification of discharged generators is just as feasible as in passenger operations, creating situations where fully-charged canisters may be loaded into cargo holds w/o proper safeguards. In these situations, the potential for a fire growing out of

control is much more likely than in passenger operations, primarily because the nearby cargo acts as fuel for the fire.

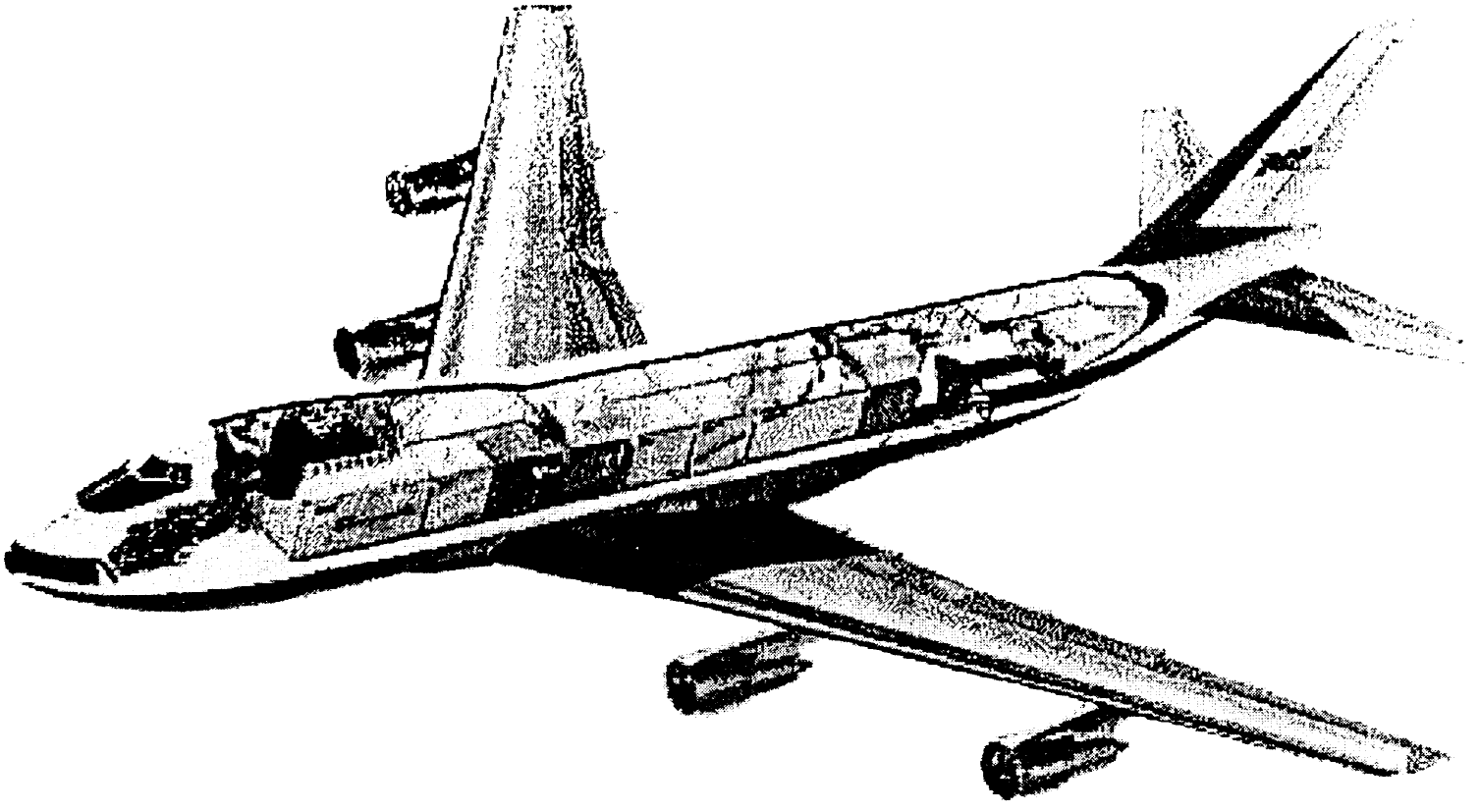


Diagram of a Typical Cargo Plane,
Fully Loaded

. Along with the previously mentioned ban in passenger air travel, it is equally as important to prohibit any behavior by any person(s) that would result in the transportation of oxygen generators aboard cargo flights as well. In our opinion, an industry-wide ban on these types of actions would greatly reduce the risks associated with these canisters. Included in this ban are any and all generators that have “expired”, or passed their “time in

service " This is a wise decision from our viewpoint in that it is quite conceivable that an "expired" generator could be confused by cargo-handlers as being empty, and therefore, not a danger

The FAA. has proposed that the exception be made for the carriage of *some* unexpired chemical oxygen generators under certain, specific circumstances'

- "...generators must be originally prepared and offered for transportation by a Research & Special Projects Administration (RSPA) Special Provision 60 approval holder.. ."
- "...generators must be labeled and loaded in accordance with the Hazardous Materials Regulations (HMRs)..."
- "...generators must be separated from other cargo before flight..."
- "...generators must be restricted to the quantity limited in the Hazardous Materials Regulations (HMRs)..."

We agree with the Federal Aviation Administration that the packaging and labeling/loading requirements would lessen the probability of an accidental discharge of a generator while loading, as well as decrease the confusion in identification and final acceptance of such dangerous cargo. The stipulation that the generators must be kept separate from other cargo and be limited in quantity might also be a helpful and preventive measure. but both of these regulations depend on a condition the F.A.A. has chosen not to address: the training of the cargo handlers who are directly responsible for loading these canisters on board aircraft. In an article written by Jim Powell of the Transportation

Development Group, Powell states that it only takes around 18 hours of instruction to "certify" someone to load deadly chemicals aboard passenger aircraft, while it takes nearly 100 times longer to become a ficcnsed hairdresser in Oklahoma He predicted that within three years "the United States government will have to step in and get in the business of reviewing and certifying dangerous goods training programs "

This idea is exactly what we support. Currently, there exists no "certified" or "accredited" school for training these individuals, and it is the private employer, not the U.S. government or even a training class, who certifies its own employees. Clearly, this is a conflict of interest, at the very least. When private companies can declare any person as "trained" after merely sitting though a two-day crash course in handling hazardous materials, everyone even remotely involved should be gravely concerned. It is only a matter of time until a second catastrophic event like the ValuJet crash of 1996 catapults this incredible offense into the public spotlight.

We feel that the Federal Aviation Administration has had ample warnings of the significant danger of transporting chemical oxygen generators. In the past twelve years alone, more than twenty other incidents (not including ValuJet) have occurred as a result of the mishandling, improperly packaged, or undeclared generators.

- On August 10, 1986 a McDonnell Douglas DC-10-40 flying for American TransAir caught on tire shortly after landing at O'Hare International Airport in

Chicago The passengers and crew were not injured, but the fire spread so quickly throughout the cabin, the entire airplane was destroyed It was determined by the National Transportation Safety Board that the fire ignited as a result of' improper handling of a canister by a mechanic when it was being shipped inside a seatback.

- On February 19, 1988, an Eastern Airlines flight suffered an in-flight fire when a flight attendant removed a chemical oxygen generator to assist a passenger who was complaining of shortness of breath. The generator malfunctioned and was laid aside on the shelf of a beverage cart; it was covered with a damp linen napkin in an effort to cool its temperature, and the napkin ignited minutes later. Several other articles in the forward galley along with the generator and beverage cart also caught fire, but flight attendants used several halon fire extinguishers and successfully put out the blaze. All 13 1 passengers and six crewmembers landed safely.
- On November 7, 1992, a chemical oxygen generator being loaded into a container intended for transportation aboard a Qantas Airways flight caught fire in North Hollywood, CA. The generator was being shipped without papers, was not properly assembled, and was not labeled in accordance with Hazardous Materials Regulations (HRMs).
- On September 24, 1993, a chemical oxygen generator being shipped without papers, not properly labeled, and not properly assembled was removed from a

burning cargo container aboard an aircraft at a Federal Express building in Oakland, CA

- On October 2 I, 1994, at an Emery Worldwide building in Los Angeles, CA, a box containing 3 7 chemical oxygen generators ignited None of the generators were properly labeled, packaged, or assembled, and none had the correct shipping papers.
- On January 26, 1996, a shipment of eleven chemical oxygen generators was found to be undeclared while being loaded onto an America West flight. A mechanic at the Las Vegas, Nevada airport noticed a partially hidden label of hazardous materials and opened the box to find the generators packed haphazardly with their actuating devices in firing position, and one canister without a retaining pin inserted.
- On April 12, 1997, a Continental Airlines flight carried seven chemical oxygen generators being shipped by one of its contract maintenance companies. They were found to be loosely packed in a box also containing a life vest. Their shipping papers listed them as "airplane parts."

CONCLUSION

In conclusion, we feel there is ample evidence to support the Federal Aviation Administration's proposal to ban the transportation of chemical oxygen generators aboard